ASSOCIATION OF INDIAN MANAGEMENT SCHOOLS

J-Gate INDEXED

AIMS JOURNAL OF MANAGEMENT

Listed in UGC-CARE Journals Under Group I: Journal ID - 101024195

Vol. 12, Special Number, October 2026 ISSN 2395-6852

Articles

Shreya Bhardwaj, Ikshu Chauhan and Vaishali 293
A Study of the Factors Affecting Employee Attrition in IT Industry

N. R. Mohan Prakash, Venkata Siva Teja Ummareddy 306
Collision of Pricing, Promotion, and Advertising on Sales Revenue of Small and Medium Scale Pharmaceutical Firms in Hyderabad

K. Prabha, T.A. Tamilselvi 330
Consumer Attitude of General Public towards Organic Food Products in Salem City

Srinivas Josyula, U. Naganjani and V. Sita 342
Digitalisation in Management Education: Bridging Opportunities and Inequalities

Rupa Rathee, Renu Bhuntel 361
Employee Attitude towards E-HRM in IT Organizations

B. Pushya and M. Neela 373
Evolution of Health Insurance in India: A Conceptual Study

Aditi Badoni, Santosh Rangnekar 395
Exploring Well-Being through Bibliometric and Systematic Analysis

Utkal Khandelwal 413
Intention to Adopt Green Management Practices by Indian Leather and Footwear Manufacturing SMEs

G. P. Sudhakar 442
Rethinking Business Management Curriculum: Learning from What Went Wrong

Articles (Contd.)

Ritika Sharma, Madhuri Gehi 464
Role of Acceptance and Flexibility in Enhancing Tolerance of Uncertainty:
A Comprehensive Review

Communication

Upinder Dhar, Santosh Dhar 486
Mindfulness at Workplace: HR Strategies for Well-being

Case Studies

The Strategic Evolution of EcoYou 495

When the Science Fails, Who Gets Cut First? 506

When Success Isn't Enough: From Banking to Sustainable Farming 520

Reinventing Success 537

Wooble: Betting on Skills at the Workplace 550

Growing Through Trust, Technology and an Inclusive Business Model 561

HOMSO: Designing a Sustainable Revenue Model for a Home Healthcare Social Enterprise 575

Asset NX: Building a Startup Workforce Beyond Experience 593

Book Reviews

M. Anil Ramesh
The Next Twenty Years: Management Education, Technology and Viksit Bharat 2047 606

Ram Kumar Mishra, Kadumuri Neeraja
From Aspirant to Civil Service: A Winning Approach 611

Guidelines for Authors 616

AIMS
Association of Indian Management Schools

AIMS JOURNAL OF MANAGEMENT

Volume 12, Special Number, October 2026

Prof (Dr) Upinder Dhar
Chairman, Editorial Board

AIMS JOURNAL OF MANAGEMENT

Vol. 12, Special Number, October 2026 **ISSN 2395-6852**

Editorial Board

Prof (Dr) Upinder Dhar
Chairman, Editorial Board, AJM
Chairman & Distinguished Professor, PDFI, Indore
Former Vice Chancellor
Shri Vaishnav Vidyapeeth Vishwavidyalaya, Indore
JK Lakshmipat University, Jaipur

Dr. RD Pathak
Adjunct Professor
Faculty of Business and Economics
University of South Pacific, Suva, Fiji

Dr. Hiral Shah
Professor and Graduate Director
Engineering Management
Fellow, American Society for
Engineering Management (ASEM),
St. Cloud State University, USA

Dr Namjae Cho
Director, Indo-ASEAN Business Center
Institute of Business Research
Hanyang University, Korea

Dr László Józsa
Professor & Dean
School of Business,
Széchenyi István University, Gyõr, Hungary

Dr William E Fitzgibbon III
Dean, College of Technology
University of Houston
Houston, USA

Dr Bhimaraya Metri
Director
IIM Nagpur

Prof Abad Ahmad
Chairman, Aga Khan Foundation – India
Former Pro-Vice Chancellor and
Dean, FMS, Delhi University
New Delhi

Prof. Nalini Prava Tripathy
Professor, IIM Shillong

Editorial Assistance
Dr Ch S Durga Prasad
Executive Director, AIMS

Editorial Office
Association of Indian Management Schools (AIMS)
6-3-348, First Floor, Mid Town Building, Opp. Vengalrao Park, Dwarakapuri Colony,
Panjagutta, Banjara Hills, Hyderabad - 500034, Telangana.
Copyright©2026, AIMS

Note: *AIMS Journal of Management* disclaims responsibility/liability for any statement of fact or opinion made by the contributors.

Contents

Editorial i

Articles

Shreya Bhardwaj, Ikshu Chauhan and Vaishali 293

A Study of the Factors Affecting Employee Attrition in IT Industry

N. R. Mohan Prakash, Venkata Siva Teja Ummareddy 306

Collision of Pricing, Promotion, and Advertising on Sales Revenue of Small and Medium Scale Pharmaceutical Firms in Hyderabad

K. Prabha, T.A. Tamilselvi 330

Consumer Attitude of General Public towards Organic Food Products in Salem City

Srinivas Josyula, U. Naganjani and V. Sita 342

Digitalisation in Management Education: Bridging Opportunities and Inequalities

Rupa Rathee, Renu Bhuntel 361

Employee Attitude towards E-HRM in IT Organizations

B. Pushya and M. Neela 373

Evolution of Health Insurance in India: A Conceptual Study

Aditi Badoni, Santosh Rangnekar 395

Exploring Well-Being through Bibliometric and Systematic Analysis

Utkal Khandelwal 413

Intention to Adopt Green Management Practices by Indian Leather and Footwear Manufacturing SMEs

G. P. Sudhakar 442

Rethinking Business Management Curriculum: Learning from What Went Wrong

Articles contd...

Ritika Sharma, Madhuri Gehi 464

Role of Acceptance and Flexibility in Enhancing Tolerance of Uncertainty: A Comprehensive Review

Communication

Upinder Dhar, Santosh Dhar 486

Mindfulness at Workplace: HR Strategies for Well-being

Case Studies

The Strategic Evolution of EcoYou 495

When the Science Fails, Who Gets Cut First? 506

When Success Isn't Enough: From Banking to Sustainable Farming 520

Reinventing Success 537

Wooble: Betting on Skills at the Workplace 550

Growing Through Trust, Technology and an Inclusive Business Model 561

HOMSO: Designing a Sustainable Revenue Model for a Home Healthcare Social Enterprise 575

Asset NX: Building a Startup Workforce Beyond Experience 593

Book Reviews

M. Anil Ramesh

The Next Twenty Years: Management Education, Technology and Viksit Bharat 2047 606

Ram Kumar Mishra, Kadumuri Neeraja

From Aspirant to Civil Service: A Winning Approach 611

Guidelines for Authors 616

Editorial

Learning to Experience Lack of Trust, Mistrust and Distrust

Social trust is a broad belief in honesty, integrity, and reliability of others - a justified faith in people. Trust is ultimately a leap of faith. That means it isn't entirely rational or logical. It often requires trusting the people, including strangers, who act benevolently and with integrity. People want to believe that human rights groups will protect their individual rights if they come under attack, that environmental groups are holding polluters accountable, and that public health organizations are safeguarding people's health. Make sure all who work for the organization, from staff to board, know what this is and their role in contributing to it.

Leaders want to be trusted individually and as an organization by staff and board, by partners, and by the people throughout society. They tailor services to their clients and remove common obstacles. Get a sense from both internal and external customers about how trustworthy they find your organization, and which fractures need repair to increase trust. Ask questions related to trust; how many people respond by saying the government is corrupt, incompetent, doesn't listen to the public, and doesn't treat people fairly. While this may be hard for leaders to hear; this dashboard provides concrete ideas to improve social trust.

Leaders need to feel the pulse of trust on a regular basis. Some signs of high trust research suggest asking: Are people crouched down in survival mode; Are they stepping out of their bubbles, seeking out others, being open to new ideas and approaching who they trust. Those engaging with you do so with responsiveness and vulnerability. People engaging with your organization feel welcome and believe they can participate in meaningful ways. People are optimistic within the organization and the world. There is a strong sense, internally and externally, that your organization places public interest over self-interest. When people walk into the health clinic, they are first asked how they are feeling and what brings them in rather than asked to pre-pay for services.

Leaders also need to understand where they experience lack of trust, mistrust, and distrust. All of these make it hard to do work. *Lack of trust* occurs because people don't know much about an organization or an issue. It isn't a negative judgment but rather a human trait to anticipate. If an organization gets a new managing director, employees may experience this. *Mistrust* reflects doubt. People are skeptical and have a lot of questions. All types of organizations or fields may experience mistrust.

Artificial Intelligence falls into this category. People don't fully understand it. Some people say it represents the end of the world; others say it will help us create a better one.

Some people don't trust those who've created it or how they're deploying it. People who experience mistrust are generally open to new information, while those who distrust are often resistant to new information. *Distrust* is more critical. It is a belief that an organization is not trustworthy. Research suggests that social distrust creates negative feelings, such as resentment, indifference, disappointment, and anger. This takes its toll on society and makes it much more difficult for organizations to achieve their objectives. Distrust can manifest into social traps where people won't do what they know is in their own and society's best interest.

Locally, people may know they all need to conserve water but see their neighbors watering their lawns and decide they too will take more water. Nationally, people may know that public transit solves congestion and mitigates climate-change consequences, but they don't believe others will ride the bus or train, so they stay in their own cars. Internationally, people know developed countries contribute more to greenhouse gases, but rather than pushing each country to do everything they can, they rationalize inaction by pointing out that other countries aren't doing their part. Social trust is fluid, based on history and current context. Health systems have caused people harm in the past that led to medical distrust. Distrust may be a protective tool for people who have had to shield themselves from harmful institutions their whole lives. Don't treat distrust as a bad behavior that needs to be corrected. Treat it as a result of people's experiences and work to become more trustworthy by addressing root causes and taking care to not perpetuate harm.

Embrace best practices to earn greater trust. Once leaders know what trust they want to cultivate and with whom, as well as their current state of trust, they can decide where there are opportunities to earn higher trust. From research and insights of experts, it is recommended to: *Walk your talk.* This addresses behaving with integrity, knowing and following moral norms and elevating moral norms to show they are alive and well; *Put your best foot forward.* These are practices and behaviors that will increase trust, like proving competency, showing you trust the people you serve, and welcoming participation; *Don't step in it.* These are behaviors and practices to avoid because they erode trust, like masking misalignment rather than taking concrete actions to fix.

To walk your talk, organizations need to prioritize knowing, following, and modeling moral norms. The difference between moral norms and values is that moral norms are expectations for how people will behave and values are the underlying beliefs that result in those rules. Showing these moral norms in action requires organizations to practice moral elevation, which taps into the emotional element of social trust. When people see others living their moral norms, which is another way of saying how they expect them to behave, they develop more confidence in others, which increases collaboration and prosocial behaviors that benefit society as a whole.

The readers of AJM are requested to go through the contents of the journal and help us in improving the academic value of this publication by offering suggestions based on their critical review and constructive observations. The prospective contributors to this journal are advised to follow APA pattern (Latest Edition) for presenting the references.

Prof (Dr) Upinder Dhar
Chairman
Editorial Board - AJM

A Study of the Factors Affecting Employee Attrition in IT Industry

Shreya Bhardwaj, Ikshu Chauhan**, and Vaishali****

Abstract

Attrition has been an important issue that influences the performance of the company. The increasing levels of attrition is the immediate concern IT companies are facing. Companies stand facing obstacles in retaining the current workforce as well as appealing potential workforce. Attrition is a big problem for the IT Industry because of scare skilled employees and the costly recruitment process. One's ability to perform the task is called self-efficacy and on the other hand Organizational efficacy is defined as ability to perform the task by the organization as a whole. The study is required to fill the gap and provide empirical base that can contribute to a better understanding the implication of self and organizational efficacy for the employee attrition in Indian IT industry. The purpose of this paper is to examine the impacts of self-efficacy and organizational efficacy on employee attrition.

Keywords: Organizational Efficacy, Poaching, Potential Appraisal, Self-efficacy, Self-concept.

Introduction

Back in 1974 when Tata Consultancy Services (TCS) found its first US client - Burroughs Corporation, to create software programming for the Burroughs machines, the history of Indian IT sector was discovered. The growth of other IT gigantic like WIPRO and Infosys in 1966 and 1981 pronounced the identity of IT revolution in India. Information Technology (IT) plays a vital role as it has become one of the fastest growing industry. Due to extensive use of Informational Technology, the world today has become one global village. Porter has defined a Five Force Model for the IT sector in India which he stated that industry rivalry is due to Barging power of supplier, Threat of Substitutes, Barging power of buyers, Threat of new entrants.

** Research Scholar. Email: shreyabhardwaj0311@gmail.com*

*** Research Scholar. Email: chauhanikshu29@gmail.com*

**** Assistant Professor. Email: vaishal_81284@rediffmail.com*

School of Management, Doon University, Dehradun, Uttarakhand - 248001.

Employee Attrition: Attrition rate is defined as voluntary and involuntary reduction of a company workforce due to retirement, transfer, resignation, termination, or death (Gary Dessler). Employee turnover or employee attrition is defined as the rate of change in the working personnel of an organization during a specified period (Prasad L.M). There are two parts of studying that are causes of attrition. (1) Causes at Individual level (Voluntary), (2) Causes at organizational level (Unvoluntary). Attrition is fraction of number of employees that changed in the particular period of time to the average number of employees (Agnes, 1999). Attrition is considered as a mirror of enterprise execution and can certainly be examined adversely to the organization's effectiveness and efficacy. The reasons for employee attrition differ from one firm to the other and from one individual to another as their expectations from the organisation remain unfulfilled. In order to understand the turnover process over time, more research and analysis is essential.

Causes for attrition: *Private Reasons:* Among many only few private reasons are noticeably felt. The reasons could be moving from one place to another for family reasons after getting married. One can choose for going to have higher education. One of the major factors which has divulged for attrition is health.

Pay and Additional Benefits: Higher salary/pay, higher designation and better benefits are the most essential causes of attrition. In comparison to Indian companies international firms offer better salary packages. If the employees do not get salary hikes every year, they switch to other organizations.

Working Atmosphere: One of the most significant reasons of attrition is working atmosphere. Specialized approach and international style working atmosphere is what new generations seek for. They anticipate a pleasant, friendly and healthy learning atmosphere. Employees in the organization look for exceptional affiliation, freedom of articulation, empowerment, friendly relations and inspiration.

Organizational Matters: On the core of its values, work environment, culture and responsibility of the organization, the employees always evaluate the management. Multinational companies follow global strategies to administer their human resources where Indian companies are still in support of implementing traditional methods of retaining their human resources on account of which Indian companies are facing the challenging competition from multinationals. There are always cycles of growth and downturn in the business. Employees switch their organization due to lack of business plan, absence of focus on future and non-accessibility of the promotions.

Job Problems: Undeniably, the job profiles these days come with lots of pressure and tension. The employees often move from one place to another if they feel much pressure or stress concerning performance or work. Usually, employees switch from one process to another. They may take time to associate with the new procedures while few employees find it challenging to adapt and would quit. One of the major reasons for attrition is tedious job set. Job hopping approach is more predominant among young people who see jobs as being transitory and change jobs for entertainment. To shift to such other process where there is not a lot or no pressure of sales and meeting service associated target is another alternative. If there are anxious relationships with the leaders or with the subordinates or somewhat dissatisfaction, the employees move out.

Poaching: There is very high demand for skilled and proficient workforce. Poaching nowadays has become very common. Poaching leads to a prominent peak through progression of advisors. The employee referral scheme in the organization makes people circulate message and refer known applicants from the preceding companies and earn too.

Employees' Advocate: Problems with their supervisors is one of the main causes why employees quit companies. Human resource professionals work as employees' advocates and act as bridge between top management and employees. But frequently a huge gap is seen between human resource managers and employees in terms of recognizing challenges and providing necessity support are found. Human resource professionals at some point do not actually realize the challenges correlated with the career development and performance evaluation of employees. On the basis of response given by human resource managers as they give voice to employees' difficulties and necessity, company builds its ground plan and schemes. Up to the time human resource department has legitimate concern in the employees' benefit, their beliefs cannot be met. This Incorporation will assist the company in meeting its objectives.

For a company a major asset is human resources. To attain economies of scale in their operations organizations constantly search for finest consumption of their human resources. For refining and sustaining organizational performance, human resource management arose with numerous significant characteristics like recruitment, orientation, development training, performance and potential appraisal, salary administration, human resource, career and succession planning. For implementing all the above functions organization capitalizes heavy amount of money for execution. But what occur if these human resources quit the organization looking for new opportunities former than the organization imagine.

Self-Efficacy: Self-efficacy remains a substantial component in Bandura (1977) social cognitive philosophy. Self-efficacy is faith in individual's abilities to instigate the enthusiasm, offered reserves, and subsequent activity necessary to come across certain circumstantial requirements. Bandura claim, solid self-efficacy faith improves apparent human ability and wellbeing to execute a specific project. It appears slow procurement of preemptive critical abilities, social and physical abilities through knowledge (Bandura, 1982). Self-efficacy describes one's faith in abilities to undertake any project and accomplish at designated levels. Self-efficacy can be recognized and characterized by two angles, one is specific, and another is general (Gardner et al., 1998). Self-efficacy arose for achieving a particular task can be seen as a task specific self-efficacy.

The intensity of the self-efficacy for that specific task will determine the strength of the attempts to be initialized for the effectively accomplishment of that task. Self-efficacy that every person think that he holds for each task designated to him to perform effectively would be perceived as general self-efficacy. Self-efficacy improves steadily as the experience achieved by the individual in a specific area. Numerous effective exposers to the particular condition or a task gives rise to widespread self-efficacy (Gardner et al., 1998). Widespread self-efficacy would pile on the same aspect as self-esteem because self-efficacy and self-worth are the fundamental elements of self-esteem (Judge et al., 1998). Self-efficacy varies from self-esteem in that; self-efficacy is involved with decisions of individual abilities whereas self-esteem is involved with conviction of self-worth (Woolfolk, 2004).

Constant achievement and positive response from the work environment would lead to higher widespread self-efficacy. Self-efficacy can decrease or increase enthusiasm for doing a task. People with high self-efficacy always seek tasks which are challenging in environment (Bandura, 1997). Overall, self-efficacy has been assumed to be a strong element of particular self-efficacy. High level of self-efficacy experiences subjugated to improve individual task performance (Sadri et al., 1993). Even Though the impacts of self-efficacy on workforce mindset and dedication are less explored, it seems like that the higher level of one's self-efficacy in some chore, the higher positive affect discovered with it. Inefficacious feelings could instigate stress and misery which could lead to lowered satisfaction and attempts for the task. Workforce with low level of self-efficacy mistrust their abilities and run away from challenging tasks and are not able to meet the objectives and principles they set for themselves (Bandura, 1989).

There are some more concepts which create confusion. But a clear distinction is essential to recognize the difference among these concepts.

Self-efficacy, Self-esteem, and Self-capabilities: To get the pure definition of self-efficacy, it should be unglued from other alike concepts. One of the concepts is self-esteem which is measured to be connected with self-efficacy, however there are variance among the two. Self-esteem is which reflects an individual characteristic i.e. evaluation of the self-e.g. felling of self-worth. Despite, self-efficacy is the decision about self-capability to execute a specific task. Furthermore, self-efficacy is also connected with anticipation. Vroom's expectancy theory (1964) proposes that hopes effect deed performance of the individual for forthcoming projects which will be allocated to him based on past involvement. Self-efficacy beliefs are not causal. Self-efficacy beliefs are beliefs about what one proficient of doing.

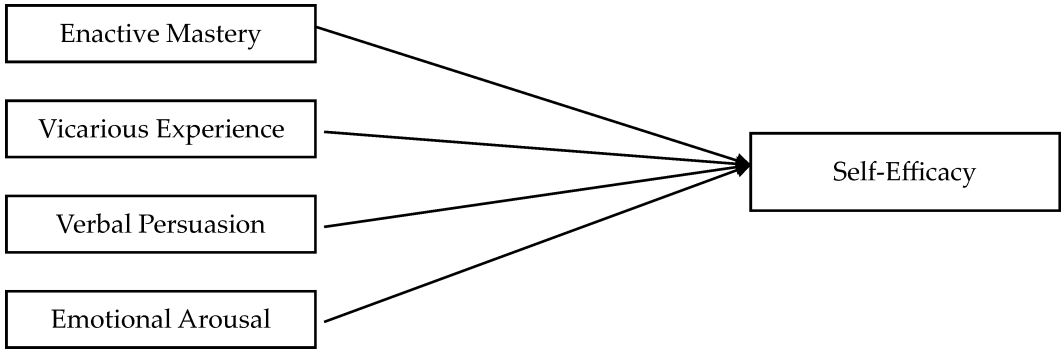
Self-efficacy and Self-concept: Self-concept denotes to a widespread self-assessment participating a diversity of self-responses and beliefs such as spirits of self-worth and general beliefs of capability whereas, self-efficacy expectations are task-specific decision of personal abilities to synchronize and perform a course of action to attain set aims. Self-efficacy focuses further on the tasks or events that an entity feels capable of performing, rather than thinking how good you are at something as providing in self-concept (Zimmerman et al., 2006).

Self-efficacy and Outcome Expectations: It is also obvious that self-efficacy principles are usually superior interpreters of actions than conclusion anticipations. In terms of certain situations conclusion anticipation refer to general behavior. For understanding future behavior these outcome anticipations are referred but a self-efficacy belief covers a bigger part of the future behavior (Schunk et al., 2002).

Self-efficacy and Perceived control (Locus of control): On locus of control the concept of apparent control emanate from previous research (Rotter, 1966; Zimmerman et al., 2006) and is concerned with general beliefs, that results are controlled by one's actions or by outside incidents. External locus of control prevents self-directed skills whereas Internal locus of control encourages one's self-directed conduct.

Dimensions of self-efficacy: There are three dimensions of Self-efficacy. *Magnitude* pertains to the intensity of task complexity that a person thinks he or she can achieve. As A Substitute of low self-efficacy specific people with high self-efficacy are more susceptible to choose challenging tasks to execute. *Strength* indicates to whether the verdict concerning magnitude is solid or shaky. It relies on the motivational capability of the magnitude. If magnitude is solid, individual will go for that specific task. *Generality* signifies the extent to which the anticipation is widespread across circumstances (Bandura,1977).

Bandura (1977, 1982) discovered four information signalise. Enactive mastery, Vicarious experience (modeling), Verbal persuasion, and Emotional (Physiological) stimulation that impact and are accountable for the advancement of self-efficacy. They are. These signals deliver valuable information, but as per Bandura self-efficacy is eventually determine by the intellectual assessment and assimilation of these information. Of the four types, mastery experiences tilt to be the most powerful because conclusions regarded as successful tend to advance self-efficacy, whereas those construed as failure tend to decline it.



Self-efficacy has assumed to be a powerful element of particular self-efficacy. High level of self-efficacy experiences subjugated to advance individual task presentation (Sadri et al., 1993). Even Though the impacts of self-efficacy on workforce mindset and dedication are less explored, it seems like that the greater level of individual's self-efficacy in some chore, higher positive affect discovered with it. Inefficacious feelings could instigate stress and misery which could lead to lowered satisfaction and attempts for the task. Workforce with low level of self-efficacy mistrust their abilities and run away from challenging tasks and are not able to meet the objectives and principles they set for themselves (Bandura, 1989).

Organizational Efficacy: To handle efficiently with the requirements, obstacles, difficulties, and prospects convene inside the enterprise atmosphere, organizational efficacy (OE) is a procreative capability inside an organization. It occurs as a combined decision of a company's specific worker's about their sense of joint capabilities, mission and purpose, flexibility. The concept which reveals excellent vow while researching the execution of the organization is efficacy. Organizational effectiveness, the confidence that organization is accomplished of performing good in all circumstances, is the positive benefit of this research. Self-efficacy existence can't be thought of in extremely collaborative projects. Team members jointly completed such tasks towards a mutual conclusion and individual efforts often cannot be recognized.

In such cases, not only by individual's capabilities and efforts team's performance is affected but also by the nature of the association between the squad colleagues and by group methods. Furthermore, when unit's project involves great interdependency between the group partners, they can build mutual faith and to utilize this mutual understanding to manage their behavior to objective fulfillment. In organizations, combined efficacy has been deliberate widely on the level of squads besides is generally well-described as a group's collective belief in its conjoint abilities to arrange and implement the courses of action necessary for creating certain levels of achievements (Bandura, 1997). It's said that players with strengthened intelligence of joint effectiveness need authorizing and inspiring impacts on group partners and strengthen their dedication towards organization. Collective efficacy has been measured as an aggregate of individual member's self-efficacy or as an agreed upon amount derived from group discussion (Bandura, 1997; Gibson, 1999).

Through collaboration between individuals, collective and organizational efficacy beliefs build. However, the types of collaboration engaged may vary between the two constructs (Rennesund et al., 2010). Social modeling, incentive systems, constructive benchmarking to examine company's, personal assortment practices, staff advancement actions, or other communication procedures at the company level, organizational efficacy beliefs arise (Bandura, 1997). Apart from this, the advancement of joint efficacy is possible upon the intricacy of the duty and the level of mutuality needed on the way to sum out a task effectively. Squad collaboration might be a significant communication process in these circumstances (Bandura, 1997). People with low self-efficacy feel less pressure if they consider that they remain the part of accompany with high efficacy beliefs. Workforces of workplaces, in other words, with low organizational efficacy would experience high level of anxiety and fear because they do not think that the rest of the workforces in the organizations would be able to achieve the task at their own.

Role of Self-Efficacy & Organizational-Efficacy in Attrition: In the reference of organizations, numerous studies come across with interface to comprehend the conduct of company's workers. The idea of individual atmosphere, for instance, emphasizes on assessment of atmosphere by a person, managing to insolences such as promise and work gratification, which are responsible to keep check on employee attrition. Self-efficacy is directly influenced by the complex position setting. Self-efficacy will shape self-ability, posting mobility, cognitive resources and the activities that required to execute tasks (Bandura, 1989). High level self-efficacy will increase the performance. Self-efficacy has a constructive relationship with work satisfaction. Increased self-efficacy enhances the job satisfaction (Bradley et al., 2004).

Collective efficacy represents group member's sense in their capability to cope collectively with the threats that produce desired outcomes and prevent undesired outcomes (Bandura,1998). Hence, moreover, to generalize self-efficacy (Judge et al., 1998) and generalized collective efficacy there is existence of organizational efficacy as well, which can remain stated as an entity's insight of the overall competences of an organization. The meaning of collective efficacy is the reasoning, sureness and pledge that the organization will execute well. This confidence contains the core belief that the company has the abilities, decision making sureness and willpower essential for success. The organizational efficacy of a team has been exposed to forecast the collective presentation of that team and thus has a strong relationship with group performance.

Objectives of the Study

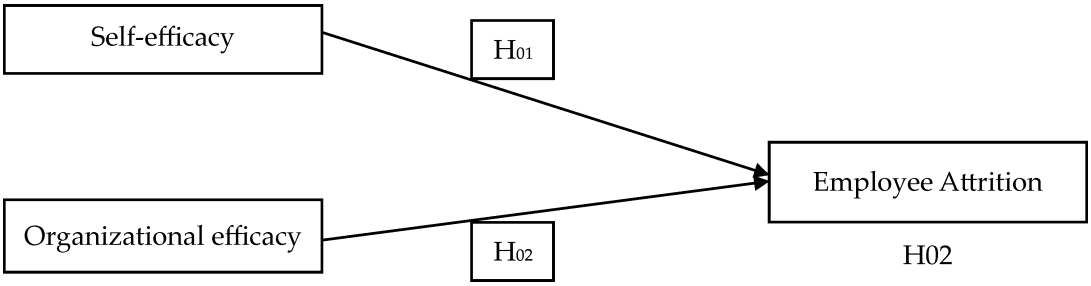
1. To measure self-efficacy and organizational efficacy among employees across IT Industry.
2. To investigate the association between self-efficacy, organizational efficacy and employee attrition.

Hypotheses

H01: There is no relationship between self-efficacy and employee attrition.

H02: There is no relationship between organizational efficacy and employee attrition.

Framework



Method

The present study is descriptive in nature and is secondary in nature which involves using secondary data available in various research journals, books, different sites and reports.

Review of Literature

Wright and Christensen (2010) examined public service inspiration between private and public sector solicitors. They proposed the study to explore the public sector motivation theory, and concluded that public service motivation cannot forecast the service sector of a interviewee's initial job, but it ensures rise of probability that the interviewee's successive job is in public sector. Chaudhary et al. (2012) examined the impact of professional self-efficacy and human resource expansion on work engagement. It was found that HRD expansion and self-efficacy disturb work appointment both straight and circuitously.

Lai (2012) showed the result of self-efficacy as well as efforts on work presentation and job satisfaction. The outcome revealed that there is a definite impact of self-efficacy and effort on job presentation and job satisfaction. Along with this, job satisfaction has an adverse effect on turnover. Cherian and Jacob (2013) found an association among self-efficacy, employee inspiration and job related performance of workers by meta-analysis. Researchers concluded that self-efficacy philosophy can be practical for work presentation together with organizational changes. Vidya et al. (2014) focused on the increasing level of attrition in the organizations which reflected the internal strengths and weaknesses of a company. It was concluded that the main reason behind attrition was lack of career advancement, dissatisfaction due to low monetary compensation of the employees, and poor relations with the superior.

Sharma and Garg (2015) stated the association between self-efficacy and intended attrition. Non-probability sampling technique was used for the analysis. They concluded that self-efficacy showed significant role in governing the attrition intent of employees. Employees with high efficacy were always ready to take higher challenges. Anne et al. (2016) observed that human resource department deals with employee related activities. Attrition and retention are two different concepts which serve different purposes. They threw light on the current scenario in Indian manufacturing organizations and discussed the reasons that lead to attrition and measures that can be taken to ensure retention. The authors concluded that to reduce attrition rate, organizations should create opportunities to help the development of employees internally, using new technologies and productive training programs.

Doménech-Betoret et al. (2017) focused on recognizing the motivational methods so that students' self-efficacy could impact their accomplishments and gratification. The findings indicated that students' educational self-efficacy impacts their accomplishments. Obeidat et al. (2018) reported that there is a constructive association

between talent management and companies' effectiveness. Ahn et al. (2019) classified the qualities that forecast customers' conduct in the brokerage investment finance sector. The authors observed that financial price is the most important variable for forecasting client attrition in the securities business. They also stated that RFM agenda can efficiently clarify the attrition of retail investors. Kaur and Padmanabhan (2019) stated the sources of absenteeism and measures to control the high rate of absenteeism. It was concluded in the study that the rate of truancy can be reduced with the help of participation and mutual commitment between employee and employer. Along with that the provision of work culture, communication, welfare facilities, various HR policies, and training help in reducing absenteeism.

AtÝk (2020) explained that how pre-service elementary teachers manage the experimentation process. He found that pre-service elementary teachers cannot perform their duty in appropriate and effective manner. He recommended that pre-service teachers should be trained to improve their skills. Cao et al. (2020) examined the impact of personal and social precursors on consideration of automation manufacturing technology through revised technology acceptance model (TAM). The results showed that considered standard seriously disturbs administrative intent to use automation manufacturing technology.

El-Rayes et al. (2020 proposed the tree based binary organization model to forecast probability of workers' turnover in the organization depending on its culture and management impute. It was found that random woodland and conclusion tree model was the most powerful attrition prognosis model. Primary factors that lead to employee turnover are compensation, senior management performance, and company culture. The researchers intended to study the loneliness and organizational efficiency, besides communication.

The review of literature is sculpted to explore the theoretical framework of the importance of self-efficacy, organizational effectiveness, and attrition intention in social science studies. Indian IT Industry is suffering from high attrition with its exponential growth. Attrition is a big problem for the IT Industry because of scarcity skilled employees and the costly recruitment process. A number of conclusions can be drawn from the above literature reviews, related to self-efficacy, organizational efficacy and employee attrition. Firstly, literature on self-efficacy provides linkages between self-efficacy and a number of antecedent activities in the organization. Secondly, organizational efficacy is relatively new in context of organizational environment and very few empirical studies have been reported. Thirdly, despite the 'attrition' drawing

attention in several areas of research, the review of literature revealed that only few empirical studies have examined these variables in IT Industry in India. Therefore, further research is required to fill this gap and provide empirical base that can contribute to a better understanding about the implications of self and organizational efficacy in the context of employee attrition in Indian IT industry.

Conclusion

Employee attrition is not a normal incident. There are several causes which raise the employee turnover rate of an organization. The internal and external reasons are accountable for worker attrition. Opportunity for development, place and work life space are crucial amongst the external reasons. Compensation, job timings or shifts, working circumstances, relationship with manager or supervisor, chance to use talent, and work load are essential among internal factors respectively. In addition, by keeping the selection process fair, the organization can monitor the turnover rate. If supervisor becomes readily available to the employees, they may endure working in the company. Workers' participation in judgment increases their self-honor and motivates them to continue to work in the company. Workers also evaluate non-monetary incentives they receive, such as acknowledgement by supervisors or managers.

References

Agnes, M. (1999). *Webster's New World College Dictionary* (4th Edition). New York, NY: Macmillan.

Ahn, Y., Kim, D., & Lee, D. J. (2019). Customer Attrition analysis in the securities industry: A large-scale field study in Korea. *International Journal of Bank Marketing, 38*(3), 561–577.

Anne, J., Talapatra, P. K., Rungta, S., & Jagadeesh, A. (2016). Employee Attrition and Strategic Retention Challenges in Indian Manufacturing Industries: A Case Study. *VSRD International Journal of Business and Management Research,* (August). Retrieved from *www.vsrdjournals.com*

AtÝk, A. D. (2020). *The Investigation of Pre-elementary Service Teachers' Experimental Self-efficacy and their Option on the Experiment: A Mixed Method Study,* 789–844.

Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory*. Englewood Cliffs, NJ: Prentice-Hall.

Bandura, A. (1997). *Self-Efficacy: The Exercise Control.* New York, NY: Freeman.

Cao, D., Tao, H., Wang, Y., Tarhini, A., & Xia, S. (2020). Acceptance of automation manufacturing technology in China: An examination of perceived norm and organizational efficacy. *Production Planning and Control, 31*(8), 660–672.

Chaudhary, R., Rangnekar, S., & Barua, M. K. (2012). Relationships between occupational self efficacy, human resource development climate, and work engagement. *Team Performance Management, 18*(7), 370–383.

Cherian, J., & Jacob, J. (2013). Impact of Self Efficacy on Motivation and Performance of Employees. *International Journal of Business and Management, 8*(14), 80–88.

Doménech-Betoret, F., Abellán-Roselló, L., & Gómez-Artiga, A. (2017). Self-efficacy, satisfaction, and academic achievement: The mediator role of students' expectancy-value beliefs. *Frontiers in Psychology, 8*(July), 1–12.

El-Rayes, N., Fang, M., Smith, M., & Taylor, S. M. (2020). Predicting employee attrition using tree-based models. *International Journal of Organizational Analysis.*

Gardner, D. G., & Pierce, J. L. (1998). Self-Esteem and Self-Efficacy within the Organizational Context: An Empirical Examination. *Group and Organization Management, 23*(1), 48–70.

Gibson, C. B., & Earley, P. C. (2007). Collective cognition in action: Accumulation, interaction, examination, and accommodation in the development and operation of group efficacy beliefs in the workplace. *Academy of Management Review, 32*(2), 438–458.

Judge, T. A., & Bono, J. E. (2001). Relationship of core self-evaluation traits - Self-esteem, generalized self-efficacy, locus of control, and emotional stability - with job satisfaction and job performance: A meta-analysis. *Journal of Applied Psychology, 86*(1), 80–92.

Kaur, J., & Padmanabhan, H. K. (2019). *A Study of Employee Attrition Rate at Selected Manufacturing Industry, III*(I), 176–181.

Lai, M.-C. (2012). Self-Efficacy, Effort, Job Performance, Job Satisfaction, and Turnover Intention: The Effect of Personal Characteristics on Organization Performance. *International Journal of Innovation, Management and Technology, 3*(4).

Obeidat, B., Yassin, H., & Masa'deh, R. (2018). The Effect of Talent Management on Organizational Effectiveness in Healthcare Sector. *Modern Applied Science, 12*(11), 55.

Rennesund, Å. B., & Saksvik, P. Ø. (2010). Work performance norms and organizational efficacy as cross-level effects on the relationship between individual perceptions of self-efficacy, overcommitment, and work-related stress. *European Journal of Work and Organizational Psychology, 19*(6), 629–653.

Sadri, G., & Robertson, I. T. (1993). Self-efficacy and Work-related Behaviour: A Review and Meta-analysis. *Applied Psychology, 42*(2), 139–152.

Sharma, B., & Garg, N. K. (2015). Impact of Self-Efficacy on Employee Attrition: A Study Through Structural Equation Modeling. *SSRN Electronic Journal* (March), 37–39.

Vidya, M., Kadam, S., & Thakar, M. (2014). A Study of Attrition in IT Industries in Pune. *International Journal of Advanced Research, 2*(3), 650–656.

Wright, B. E., & Christensen, R. K. (2010). Public service motivation: A test of the job attraction-selection-attrition model. *International Public Management Journal, 13*(2), 155–176.

Collision of Pricing, Promotion, and Advertising on Sales Revenue of Small and Medium Scale Pharmaceutical Firms in Hyderabad

N. R. Mohan Prakash, Venkata Siva Teja Ummareddy***

Abstract

Pricing, Promotion, and Advertising decisions are major marketing levers and dominant components of the Marketing Mix. Marketing Mix decisions are tactical, short-term-oriented decisions often revised for the highest effect. The paper has been developed to present a literature review on Marketing Mix and explore the pricing objectives of pharma SMS firms' products, pricing bases, and price revision frequency. And also having the other object to analyze stock inventory period, promotion method, and advertising method, their relevant hypotheses that explore the link of the related decisions with the firm's performance. The study has been carried out on 80 SMS pharmaceutical companies located in Hyderabad, the capital city of Telangana, chosen for the research study where around 160 SMS Pharmaceutical firms have existed. The researcher used a constructive questionnaire to get the relevant data for the research study. The study's outcome clearly states that SMS pharma companies' profit and sales revenue influence their pricing objectives, promotion, and advertising.

Keywords: Marketing Mix, Prescribing Behavior, Profit, Stock Inventory Period.

Introduction

India is the third-largest pharmaceutical producer globally in volume, and the fourteenth in value, boasting 10500 manufacturing units and 3000 drug firms (https://www.ibef.org/industry/pharmaceutical-india.aspx3). India is a dominant international player in the pharmaceutical industry. The present global market share of the Indian pharmaceutical industry is 3.6 percent by value. India has become a leading player

* *Associate Professor. Email: nedunuriprakash@gmail.com*

** *Research Scholar. Email: ummareddy10@gmail.com*

Department of Marketing, GITAM Institute of Management, GITAM Deemed to be University, Visakhapatnam-530017.

and a visionary in the pharmaceutical field with its formulation capabilities and entrepreneurial attributes. Indian pharma has notably established itself as a purveyor of high-quality generics at affordable prices. Indian pharma industry gives employment to more than 2.7 million persons in research and manufacturing. It is one of the top five sectors that help cut the trade deficit. This sector is one of the top eight that attract foreign direct investment. But India is heavily dependent on China to import APIs (active pharmaceutical ingredients, a critical component of dosage form medicines) for making anti-biotics and vitamins.

The pharmaceutical sector runs its businesses under four categories: (1) marketing of generic medicines, (2) marketing of branded generic medicines, (3) marketing of new-to-the-world medicines, and (4) manufacture and supply of active pharmaceutical ingredients. Pharmaceutical firms' success depends heavily on proper marketing mix handling, promotions, and branding. Products also should be of value with unique benefits and features. Most Pharma SMEs are still contending with survival and growth problems. They need some direction from research so that they would recalibrate their marketing strategies and marketing mix.

Many studies testify to the link between proper marketing mix decisions and large-scale business volume achievement (Antonella, 2017). Strategies about marketing mix create revenues, but all other strategies create costs (Wawira, 2016). Advertising, an important element of the marketing mix, positively affects the long-term surplus availability (Jedidi et al., 1999). Montoya (2008) found significant effects of promotion tools in the pharma industry; he notes that detailing and sampling have long-term effects; detailing is a customer acquisition tool, while sampling is a retention tool.

The Objective

To evaluate the impact of pricing, promotion, and advertising in connection with sales revenue and profits of SMS Pharmaceutical firms in Hyderabad, Telangana State.

Hypothesis

The research is centered on the following hypotheses based on the literature review and industry issues that emerged from my discussions with industry experts. *"The study presupposes no significant relationship exists between sales revenue and profit, pricing, promotion, advertising of small and medium pharmaceutical enterprises in Hyderabad."*

The sub-hypotheses of the study are:

H_{01} : The Pricing Objective does not influence the firm's performance indicators, i.e., Sales Revenues and Performance.

H_{02} : The pricing basis does not influence the Sales Revenues and Profits of pharmaceutical companies.

H_{03} : Price Revision Frequency does not influence sales revenues and profits.

H_{04} : Stock Inventory Period does not affect Sales Revenues and Profits.

H_{05} : The promotion method does not influence Sales Revenues and Profits.

H_{06} : The advertisement method does not influence sales revenues and profits.

Review of Literature

Product mix, also known as '4 P's', consists of four business decisions that should be finely customized so that a firm competes successfully in the competitive space; these are four controllable variables that influence customer's decisions concerning product/ service offered by the firm (Singh, 2012). These, also called 'marketing levers,' are Product (Acceptability and customer solution), Place (Availability and convenience), Price (Affordability and cost), and Promotion (Awareness and communication). When the business is in the services space, the firm should pay attention to three more variables, people (the staff involved in the delivery of service, process (the set of activities customized to produce the best service, and physical evidence (all the tangible assets that facilitate business operations and impress the customers). The marketing mix is a creator of differentiation; it is a holy quadruple of marketing faith written on stone tablets (Kent, 1986). A diligent combination of these elements produces the expected response from the target consumers.

Marketing mix has its share of criticism and opposition from scholars; notably, it lays stress on functions but not output and lacks emphasis on relationships (Patterson and Ward, 2000); it is internally oriented and short of focus on external forces like competitors (Robins, 1991); most importantly, it does not cover strategic elements like competition, customers and corporation (Ohmae, 1982). However, the marketing mix is simple and easy to get familiar with; it introduces the firm owners to business basics and helps them avoid the pitfalls that most businesses walk into.

Many studies testify to the link between proper marketing mix choices and business performance (Antonella, 2017). Strategies related to marketing mix spawn revenues, but all other strategies create costs (Wawira 2016). Advertising has positive effects on

long-term profitability (Jedidi et al., 1999). The study of Montoya (2008) revealed varying effects of promotion tools in the pharma industry; he observes that "detailing and sampling have long-run effects; detailing is a customer acquisition tool, while sampling is a retention tool."

Influence of Pricing and Advertising on Physician's Prescription Behaviour

Hailu et al. (2021) found through their study that the perceived effect of pharmaceutical marketing mix strategies on physician's prescribing behavior is 55.9 percent; the perceived effect of Promotion, product, place, and price strategies on prescribing behavior is 61 percent, 52.2 percent, 52.2 percent, and 58.8 percent respectively.

Pricing

Pricing is the total costs spent creating, distributing, promoting, and organizing the relevant processes. (Kotler, 2007). "If you increase your price by 10 percent without losing business to your competitors, you have a very good business; if you pray to God before you increase your price by 10 percent, you have got a terrible business-"Warren Buffet (March 5, 2011, Bloomberg Business Week). Baker et al. (2010), citing a report of McKinsey and Company which was made based on Global 1200 companies, observe that on average, a 1 percent price increase results in an 11 percent increase in operating profit; the price has to be increased by just 9 percent to double the profits.

Continuous discounting reduces sales during non-discount periods and increases purchases made during discounting periods (Krishna, 1994). Increased discounts might decrease consumer's reference prices, resulting in a low perceived utility of fixed discounts; price reductions that follow discounts lead to a small increase in sales revenues. The pricing method, in which customers finally pay low prices after a host of discounts, is referred to as the 'pricing waterfall.'

Sales Revenue Maximisation is expected to bestow market power, leadership, and liquidity for further business expansion and employment. Contrarily, Profit Maximisation sacrifices revenues in favor of profits. Profit maximization is expected to maintain the financial health of the firms, shareholder satisfaction, and long-term survival and growth of the firm. But the market penetration is low in the case of pursuing profit maximization goals. These two mutually exclusive objectives, which direct the organization's thinking, must determine the performance.

Of the 19 different pricing strategies, the cost-plus pricing strategy was the most widely used one, as found by Rao and Kartono (2009) in their study on three nations, the

USA, India, and Singapore, followed by price signaling (using price as an indicator of value) and perceived value pricing (a customer's perception of the value of the product). Steadman (2000) posits that value-based pricing is better than cost-plus pricing; he found that 10 percent of the firms use value-based pricing. It is close to smart pricing, in which prices are based on demand and perceived value. Smart prices vary by segment and perceived value. Conversely, dynamic pricing is rooted in the current level of demand.

Penetration Pricing, in which the price is kept at the lowest, gives an advantage to the company in a deeper penetration; when a new product is rolled outs or a new market entered, if penetration pricing is followed, the company attracts more customers and generates higher revenues to get a strong foothold in the market. Odhiambo (2013) established through his study on pharmaceutical companies' sales revenues that pricing strategy significantly affects the organization's sales performance. Notably, price leadership has a huge impact on organizational efficiency. The studies of some scholars (Colpan, 2006; Owomoyela et al., 2013) attest to the importance of pricing strategies in improving organizational performance. Owomoyela et al. (2013) revealed a strong link between price and business performance; price is the key to market success. Some other authors similarly established through their study that price strongly affects business performance. The study set out to check the effects of price objectives on performance indicators of the firm. Accordingly, a hypothesis is formulated as follows.

Advertising

Pharmaceutical promotion either informs or persuades. Consumer-targeted pharmaceutical advertising helps increase and widen the market, inform the consumers, spurring doctor contact, wider use of drug treatment, and promotes loyalty to the advertised drug among the current users. Physician-targeted advertising helps in increasing selective brand sales (Dave, 2013).

Data Analysis and Hypotheses Testing

(i) PRICING OBJECTIVES

H_{01}: *The Pricing Objective does not influence the firm's performance indicators, i.e., Sales Revenues and Performance.*

To settle the above hypothesis, statistical tests were run on the collected data. The means of performance indicators of the companies pursuing sales revenue and Profit Maximisation are first separately computed. Later, Mann-Whitney U Tests were conducted, and the results are displayed in Table 1.

Table 1: Actual Means

Pricing objective		N	Mean
Sales Revenue Quotient	Maximize sales	24	7.136
	Maximize profits	56	7.406
Profits Quotient	Maximize sales	24	0.754
	Maximize profits	56	0.635

The means of Sales Revenues of companies pursuing Profit Maximization are higher than those pursuing Sales Maximization. The means of the Profits Quotient of companies pursuing Sales Maximization are higher than those pursuing Profit Maximization.

Table 2: Rank Means (Useful for Test Calculation only)

Pricing objective		N	Mean Rank
Sales Revenue Quotient	Maximize sales	24	45.21
	Maximize profits	56	38.48
	Total	80	
Profits Quotient	Maximize sales	24	49.06
	Maximize profits	56	36.83
	Total	80	

In this case, rank means don't effectively convey the performance differences.

Table 3: Test Statistics

Test Statistics	Sales Revenue Quotient	Profits Quotient
Mann-Whitney U	559.000	466.500
Asymp. Sig. (2-tailed)	0.235	0.031
a. Grouping Variable: Pricing objective		

As attested by the significance value, i.e., 0.235 (> 0.05), Sales Revenues are not affected by the Pricing Objective. But Pricing Objective discriminates those pursuing sales from those pursuing profits. The profits performance of those pursuing Sales Revenues is significantly higher than those pursuing Profits. It is corroborated by the significance value, which is less than 0.05. The results attest to the attractiveness and worth of the Sales Maximization Objective.

But concerning Sales Revenues, the pricing objective makes no difference. Moreover, the profit maximization objective shows greater means of Sales Revenues than those of the sales maximization objective. The null hypothesis is accepted regarding Sales Revenues since the objective does not influence it. But in the case of Profits, the null hypothesis is not accepted since the difference is significantly higher for those pursuing sales maximization. It confirms the view that sales maximation is better for the profits performance of pharmaceutical companies in this part of the world.

(ii) PRICING BASIS

Pricing is usually set on two distinct bases, (1) the ruling current market price trend and (2) desired profit and total effective cost. Which criterion is good for Sales Revenues Performance? Which criterion is good for Profit Performance? Taking a cue from the preceding questions, a hypothesis can be formulated.

H_{02}: *The pricing basis does not influence the Sales Revenues and Profits of pharmaceutical companies.*

Towards resolving the above hypothesis, actual means were computed; the means of Sales Revenues and Profits are shown in Table 4. It is clear from the means table that the means of Sales Revenues and Profits of companies using current market price trend as a basis for pricing are greater than those using Cost plus Profit as a basis. As evidenced by the means, the current market price as the basis of pricing emerges as an attractive alternative. But to allow for sampling error, statistical tests and Mann-Whitney U tests were conducted, and the results are displayed in Table 4.

Table 4: Actual Means

Basis of Pricing		**N**	**Mean**
Sales Revenue Quotient	Current Market -Determined	72	7.86160
	Cost + profit	08	2.49800
Profits Quotient	Current Market -Determined	72	0.71838
	Cost + profit	8	0.24613

Table 5: Rank Means (For test calculation only)

Ranks				
Basis of Pricing		**N**	**Mean Rank**	**Sum of Ranks**
Sales Revenue Quotient	Current Market – Determined	72	42.25	3042.00
	Cost + profit	8	24.75	198.00
	Total	80		
Profits Quotient	Current Market – Determined	72	40.72	2931.50
	Cost + profit	8	38.56	308.50
	Total	80		

Table 6: Test Statistics

Test Statistics	**Sales Revenue Quotient**	**Profits Quotient**
Mann-Whitney U	162.000	272.500
Asymp. Sig. (2-tailed)	.043	.804
a. Grouping Variable: Basis of Pricing		

The difference in Sales Revenues for those who adopted Current Market Trend and those who adopted Cost-Plus Profit is significant, as attested by the significance value, 0.043, which is less than 0.005. But in respect of Profits, the pricing basis does not influence, as attested by the significance value, 0.804, which is far higher than 0.05. So, the null hypothesis regarding Sales Revenues is not accepted since the mean difference is significant. But in the case of Profits, the null hypothesis is accepted since the higher difference is not significantly greater to consider it an influencing factor.

(iii) PRICE REVISION FREQUENCY

The price must be revised to comply with the market prices and changing operations costs. Not doing so would potentially cut revenues, market, and profits. The researcher attempted to determine whether price revision frequency affects sales and profits. Accordingly, the following hypothesis is formulated.

H_{03}: *Price Revision Frequency does not influence sales revenues and profits.*

Towards resolving the above hypothesis, means were computed and compared. Before that, responses were grouped based on price revision frequency: (1) yearly once, and (2) not often. As furnished in the Means table, the mean of the Sales Revenue Quotient of the firms following yearly revision is greater (7.46) than those following the 'Not often' price revision policy (5.82). Concerning profits, the mean of 'yearly once revision' firms (0.70) is greater than that of the 'Not often' price revision group of firms (0.40). At first look, 'yearly once' price revision appears advantageous, but statistical tests have to be performed to rule out sample-related errors. Accordingly, Mann-Whitney U Tests have been run.

Table 7: Means Price Revision Frequency

Price revision frequency		**N**	**Mean**
Sales Revenue Quotient	Yearly once	69	7.46
	Not often	10	5.82
Profits Quotient	Yearly once	69	0.70
	Not often	10	0.40

Table 8: Rank Means

Price revision frequency		N	Mean Rank	Sum of Ranks
Sales Revenue Quotient	Yearly once	69	38.90	2684.00
	Not often	10	47.60	476.00
	Total	79		
Profits Quotient	Yearly once	69	41.04	2832.00
	Not often	10	32.80	328.00
	Total	79		

Table 9: Mann Whitney Test

	Sales Revenue Quotient	Profits Quotient
Mann-Whitney U	269.000	273.000
Wilcoxon W	2684.000	328.000
Z	-1.121	-1.062
Asymp. Sig. (2-tailed)	.262	.288

The significance values of Mann-Whitney U Tests for both Sales Revenue Quotient and Profits Quotient are 0.262 and 0.288, which are greater than the cut-off value, i.e., 0.05. Those non-significant values show that the price revision frequency does not affect sales revenues and profits. Hence, the tests inferred that Price Revision Frequency does not influence Sales Revenue Quotient and Profits Quotient. Based on the above findings, the null hypothesis that Price Revision Frequency does not influence sales revenues and profits is accepted.

(iv) STOCK INVENTORY PERIOD

Firms get benefitted by achieving a good number of turnovers (times) of the stock (the number of times the stock is converted into cash in a year); this saves inventory maintenance costs like interest, storage, wastage, etc., resulting in profits. Smaller

stock inventory helps a firm reduce maintenance costs, but it has its downside too. Leaner stocks offer narrower choices to select from and loss of sales due to stock-out incidents. A balance between large stock and lean stock has to be struck. This research identified three popular 'stock inventory periods' and wanted to determine which period is good for sales revenues and profits. The three most common stock inventory periods are (1) three months, (2) six months, and (3) longer than six months. The following hypothesis was formulated.

H_{04}: Stock Inventory Period does not affect Sales Revenue Quotient and Profits Quotient.

To resolve the above hypothesis, the means were computed for inter-comparison. Computation of means and comparison of them with one another is done for Sales Revenue Quotient and Profits Quotient separately. The results are presented in Table 10.

The mean of Sales Revenue Quotient relating to firms with six months as a stock inventory period (13.74) is higher than those of other stock inventory periods of 3 months and longer than one year (5.90 and 2.41 respectively). Six months period is best, as evidenced by means. But means might have been a product of random errors. So Kruskal Wallis Test has to be run to unravel the real difference.

Table 10: Sales Revenues

Stock Inventory Period	Mean	N
Three months	5.90	51.00
6 months	13.74	19.00
Longer than six months	2.41	10.00
Total	7.33	80.00



Exhibit 1: Sales Revenue for Stock Inventory period

Similarly, means analysis was done for Profits Quotient too. The mean of firms going by six months' inventory period is greater than the remaining two periods, three months, and longer than six months. The mean of Profits Quotient for six months, three months, and longer than six months are 1.44, 0.50, and 0.09, respectively. The mean of six months period is greater than those of all others.

Table 11: Profits

Stock Inventory Period	Mean	N
3 months	0.50	51.00
6 months	1.44	19.00
Longer than six months	0.09	10.00
Total	0.67	80.00

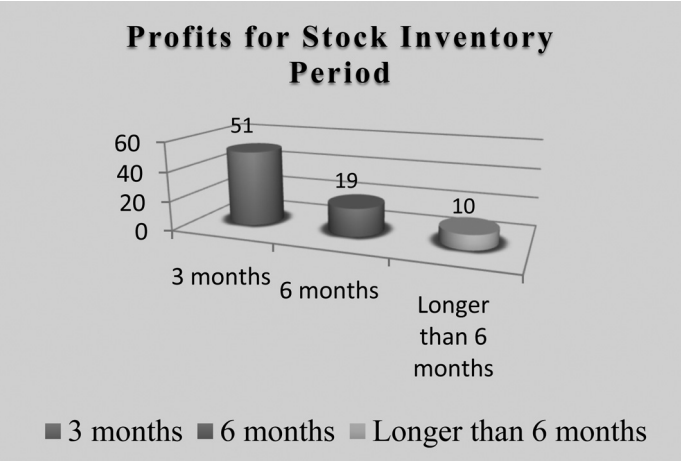


Exhibit 2: Profits for Stock Inventory Period

Table 12: Rank Means

Stock Inventory Period		**N**	**Mean Rank**
Sales Revenue Quotient	Three months	51	40.94
	Six months	19	47.89
	Longer than six months	10	24.20
	Total	80	
Profits Quotient	Three months	51	37.01
	Six months	19	58.18
	Longer than six months	10	24.70
	Total	80	

Table 13: Kruskal Wallis Test

	Sales Revenue Quotient	Profits Quotient
Chi-Square	6.863	16.781
Df	2	2
Asymp. Sig.	.032	.000

The Kruskal Wallis test confirms that the six-month inventory period is the most preferred. The significance values of the Kruskal Wallis Test for Sales Revenue Quotient and Profits Quotient are 0.032 and 0.000. They are less than the cut-off value. It implies that the stock inventory period affects the sales turnover and profits. Hence the null hypothesis that Stock Inventory Period does not affect the Sales Revenue Quotient and Profits Quotient is not accepted.

Donohue et al. (2007) observe after their study on arthritis, depression, cholesterol, and allergy drugs that advertisements lead to the use of drugs and also reporting of negative medical consequences, but with detailing, such reporting occurs less frequently; Promotion and advertising generates a proper understanding between physician and patients and thus improves the wellbeing of the patients.

Sampling and Journal Advertising

Between 1996 and 2000, consumer advertising was a rapidly increasing part of pharmaceutical Promotion, with an average yearly growth rate of 33 percent for gastrointestinal, cholesterol, insomnia, and anti-arthritic/analgesic drugs. But, detailing and sampling increased at 12-13 percent annual rates, whereas professional journal advertising was almost the same.

Pharmacy Marketing is Physicians' Education

Pharmaceutical marketing typically is about informing, updating, and educating the doctors, who usually don't find time to search medical libraries, about the availability of a drug; this education process is expensive, but the costs are offset by the proper use of the medicines which the doctors shape. The pharmaceutical industry is engaged in the great service of updating physicians on the availability of a new drug (Levy, 1994).

Promotional Methods - Personal Selling

Personal selling is the most popular and widely accepted promotion and marketing of pharmaceuticals. Personal selling goes with the objective of prescription generation, which is both a rational and emotional process. Physicians weigh alternative therapies and choose the one that can satisfy his need.

Drug Advertisement

Advertisements inform the users. It is known as information-view. But, the persuasion view holds that advertisements persuade the customers. The study by Rosenthal et al. (2003) done on the data relating to the period from 1996 to 1999 of the USA pharmaceutical industry found that direct-to-consumer (DTA) advertisement raises the total demand and the sales for the product, but not the market share of the advertiser or brand-related demand. Wosinska (2002) found that if a drug has a prominent place in the formulary (list of recommended drugs) and is advertised, such advertisement increases demand. Some researchers (Bhattacharya and Vogt, 2003) note that the product life cycle should guide the advertisement and promotion programs since certain product life cycle stages don't lend themselves to any effects while some do.

Functions of Pharmaceutical Advertising

Meyerhoefer and Zuvekas (2008), who conducted a study on depression drugs with the help of the data relating to the period of 1996-2006, established that advertisements raise the demand from new patients, with an elasticity of 0.16; the effect is significantly higher when they pay from their own pockets in small amounts.

Liu and Gupta (2011) stumbled on a finding that advertisements lead to a rise in patients' visits to physicians. Iizuka and Jin too confirmed that advertisement drives visits to physicians and increases demand. Kalyanaram and Winer (1995) study found that consumer-directed and physician-directed advertising campaigns cause positive change in the brand's market share. The demand elasticity with consumer-focused advertising is 0.21, while the doctor-focused advertisement is 0.62. It is aligned with the results of Wosinska's (2002) study.

TV Advertisement

Consumer-directed television advertisements will strongly influence the demand from scarcely-served communities (Liu and Gupta, 2011). Researchers who conducted a

study on 57 doctors between 2000-and 2002 regarding their use of Vioxx and Celebrex also came across the market expansion effects; they found that advertisements on local and network television motivated osteoarthritis (OA) patients to become doctors.

Promotion Method

Promotions are launched to persuade the customer; quick responses come from a customer with the promotions. In other words, Promotions, unlike advertisements, motivate quick action. The effects of promotions are inherently short-termed. That apart, promotions might potentially impact brand equity also. Promotions are used to achieve quicker and higher turnover and for the inventory to leave the shelves. For this study, three promotional methods have been taken up to know their influence on Sales Revenues and Profits. They are (1) Personal Selling, (2) Advertising, and (3) Sales Promotion. These are the dominant methods used in this universe of respondents. Personal selling is about personal, face-to-face presentations of the information. Advertising is a "non-personal presentation of information" through media like newspapers, TVs, etc. Sales Promotion is a short-term offer of products more than usual, price reduction, etc. This research attempts to tease out the influence of the Promotion Method on Sales Revenues and Profits. The following hypothesis is made to go ahead with this component of research.

H_{05}: ***The promotion method does not affect Sales Revenues and Profits.***

Means have been calculated for inter-group comparison. The means of Sales Revenues of three groups (companies following Personal Selling as a dominant method, companies following Advertising as a dominant method, and companies following Sales Promotion as a dominant method) are displayed in Table 14. A quick look at the table suggests that Sales Promotion is causing the highest mean, followed by Advertising. These means, after comparison, lead us to conclude that Sales Promotion is the most suitable method for Sales Revenues. But sampling errors have to be checked before figuring out the real influence. Kruskal Wallis test has been run. See Table 14. The significance value of the test is greater than 0.05. Hence, the difference is not a significant and dependable one. It means that the Promotion method does not influence sales revenues. Hence the null hypothesis that the Promotion method does not influence Sales Revenues is accepted.

Table 14: Sales Revenues

Major promotion method	Mean	N
Personal Selling	5.14830	33
Advertising	8.21800	15
Sales Promotion	9.15172	32
Total	7.32524	80



Exhibit 3: Sales Revenue for Major Promotion Method

Table 15: Profits

Major promotion method	Mean	N
Personal Selling	0.53	33
Advertising	1.46	15
Sales Promotion	0.44	32
Total	0.67	80



Exhibit 4: Profits for Major Promotion Method

The means comparison exercise was attempted for Profits also. See Table 15 for means comparison. The group whose principal promotion method is advertising has higher Profits mean. It means that Advertising is the most suitable method for achieving the best Profits. But, to ensure that the difference is not a result of sampling error, the Kruskal Wallis test has been run to detect the true difference. The test results show that the significance value is much higher than the cut-off value of 0.05, implying that the difference results from sampling error but not the one that could matter. Hence the null hypothesis that Promotion does not influence Profits is accepted.

Table 16: Rank Means

Ranks			
Major promotion method		**N**	**Mean Rank**
Sales Revenue Quotient	Personal Selling	33	39.70
	Advertising	15	42.73
	Sales Promotion	32	40.28
	Total	80	
Profits Quotient	Personal Selling	33	41.00
	Advertising	15	47.33
	Sales Promotion	32	36.78
	Total	80	

Rank means are not suitable for attempting inter-group comparisons. They are just a prerequisite for conducting the Kruskal Wallis test.

Table 17: Kruskal Wallis Test

Test Statistics		
	Sales Revenue Quotient	**Profits Quotient**
Chi-Square	0.181	2.132
Df	2	2
Asymp. Sig.	0.914	0.344
Grouping Variable: Major promotion method		

Advertisement Method

Advertisement is a "non-personal presentation of information to inform, persuade, and remind the consumers" about a product or a service. For this study, three kinds of advertisement are observed as being used in this sphere selected for this research. They are (1) Print, (2) Electronic, and (3) Trade Expos. This research set out to find proof of the influence of the Advertisement Method on Sales Revenues and Profits. Hence a hypothesis is formulated as follows:

H_{06}: ***The advertisement Method does not influence Sales Revenues and Profits***

To resolve the above hypothesis, group means were calculated. There are three groups of firms: (1) firms with Print Media advertising as a dominant advertising method, (2) firms with Electronic Media advertising as dominant advertising, and (3) firms with Trade Expos as a dominant advertising method. The calculated group means for Sales Revenues and Profits were compared to understand which advertisement method is exerting higher on the performance of Sales Revenues and Profits. Electronic media shows a greater mean of Sales Revenues, followed by print. As regards Profits, print media is showing a higher mean of Profits. These differences might not be real ones. So, to resolve this dilemma, Kruskal Wallis tests were conducted.

Table 18: Group Means for Sales Revenues and Profits to understand the effective advertisement method

		N	Mean
Sales Revenue Quotient	Print	9	8.31767
	Electronic	29	10.18172
	Trade expos	42	5.14024
	Total	80	7.32524
Profits Quotient	Print	9	1.15378
	Electronic	29	0.70210
	Trade expos	42	0.54636
	Total	80	0.67115

Table 19: Major Advertisement Method

Ranks			
Major Advertisement Method		**N**	**Mean Rank**
Sales Revenue Quotient	Print	9	39.94
	Electronic	29	41.28
	Trade expos	42	40.08
	Total	80	
Profits Quotient	Print	9	47.22
	Electronic	29	38.48
	Trade expos	42	40.45
	Total	80	

Kruskal Wallis tests come with significance values greater than 0.005. It means that the differences reflect a result of random error but not a true difference occasioned by the efficiency of any particular method. It implies that the Advertising Method has no impact on the performance of the firms. Hence the null hypothesis that the Advertising Method does not influence Sales Revenues and Profits is accepted.

Table 20: Kruskal Wallis Test Results

Test Statistics[a,b]		
	Sales Revenue Quotient	**Profits Quotient**
Chi-Square	.051	.972
Df	2	2
Asymp. Sig.	.975	.615
a. Kruskal Wallis Test		
b. Grouping Variable: Major Advertisement Method		

Major Findings of the Study

- Pricing Objective discriminates between those following sales and those following profits. The profits performance of those pursuing Sales Revenues is significantly higher than those pursuing Profits.
- The pricing basis influences a firm's sales performance. But in respect of Profits, the pricing basis has no impact.
- Price Revision Frequency, whether yearly once or not often, does not influence Sales Revenues and Profits.
- Stock inventory period affects the sales turnover and profits; an inventory period of 6 months, not three months or longer than six months, is found a worthwhile practice.
- The promotion method – personal selling, advertising, and sales promotion – does not influence sales revenues and profits.
- The type of advertising media – print, electronic, and expos – used does not influence sales revenues and profits.

References

Antonella, S. F. (2017). The Effects of Marketing Mix (4P) on Companies' Profitability: A Case Study of Automotive Industry in France. *Journal of Research in Marketing*, *8*(1), 636-640.

Baker, W. L., Marn, M. V., & Zawada, C. C. (2010). *The Price Advantage.* Volume 535. John Wiley and Sons.

Colpan, A. M. (2006). Dynamic Effects of Product Diversity, International Scope and Keiretsu Membership on the Performance of Japan's textile firms in the 1990s: *Asian Business and Management*, *5*(3), 419-445.

Dave, D. M. (2013). Effects of pharmaceutical promotion: A review and assessment, *NBER Working Paper* No. 18830 February 2013.

Donohue, J. M., Cevasco, M., & Rosenthal, M. B. (2007). A decade of direct-to-consumer advertising of prescription drugs. *New England Journal of Medicine*, *357*(7), 673-681.

Hailu, A. D., Workneh, B. D., & Kahissay, M. H. (2021). Influence of pharmaceutical marketing mix strategies on physicians' prescribing behaviors in public and private hospitals, Dessie, Ethiopia: a mixed study design. *BMC Public Health*, *21*(1), 1-15.

Jedidi, K., Mela, C. F., & Gupta, S. (1999). Managing advertising and promotion for long-run profitability. *Marketing Science*, *18*(1), 1-22.

Kalyanaram, G., & Winer, R. S. (1995). Empirical generalizations from reference price research. *Marketing Science*, *14*(3_supplement), G161-G169.

Kent, R. A. (1986). Faith in the four Ps: An alternative. *Journal of Marketing Management, 2,* 145-154.

Kotler, P (2007). *Marketing: An Introduction.* New Jersey: Pearson Education Inc.

Krishna, Aradhna (1994). The impact of dealing patterns on purchase behavior. *Marketing Science,13*(4), 351–373.

Levy, R. (1994). The role and value of pharmaceutical marketing. *Arch Fam Med*, *3*(4), 327-32.

Liu, Q., & Gupta, S. (2011). The impact of direct-to-consumer advertising of prescription drugs on physician visits and drug requests: Empirical findings and public policy implications. *International Journal of Research in Marketing*, *28*(3), 205-217.

Meyerhoefer, C. D., & Zuvekas, S. H. (2008). The shape of demand: what does it tell us about direct-to-consumer marketing of antidepressants? *The BE Journal of Economic Analysis and Policy*, *8*(2).

Montoya, R. (2008). *Dynamic Marketing Mix Allocation for Long-Term Profitability*. Columbia University.

Odhiambo, M. (2013). *The Effect of Pricing as a Competitive Strategy on the Sales Performance of Selected Pharmaceutical Companies in Nairobi County* (Doctoral Dissertation, University of Nairobi).

Ohmae, K. (1982). *The Mind of the Strategist: The Art of Japanese Business.* New York: McGrow-Hill Inc.

Owomoyela, S.K., Oyeniyi, K.O. & Ola, O.S. (2013). Investigating the impact of marketing mix elements on consumer loyalty: An empirical study on Nigerian Breweries Plc. *Interdisciplinary Journal of Contemporary Research in Business, 4*(11): 485-496.

Patterson, G.P. & Ward, T. (2000). *Relationship Marketing and Management: Handbook Services Marketing and Management*. Sage Publications Inc, 416.

Rao, V. R., & Kartono, B. (2009). *Pricing Objectives and Strategies: A Cross-Country Survey*. Cheltenham, UK: Edward Elgar Publishing, Inc.

Robins, F. (1991). *Four Ps or Four Cs or Four Ps and Four Cs*. Paper Presented at MEG Conference.

Rosenthal, M. B., Berndt, E. R., Donohue, J. M., Epstein, A. M., & Frank, R. G. (2003, January). Demand effects of recent changes in prescription drug promotion. In *Forum for Health Economics and Policy*, 6(1). De Gruyter.

Singh, M. (2012). Marketing mix of 4P's for competitive advantage. *IOSR Journal of Business and Management*, *3*(6), 40-45.

Steadman, Craig (2000). Value-based Pricing. *Computerworld, 34*(11), 58-59.

Wawira, P. L. (2016). *Marketing Strategies and Performance of Large Hotels in Nairobi County* (Doctoral Dissertation, University of Nairobi).

Wosinska, M. (2002). Just what the patient ordered? Direct-to-consumer advertising and the demand for pharmaceutical products. *Harvard Business School Marketing Research Papers*, 02-04.

Consumer Attitude of General Public towards Organic Food Products in Salem City

K. Prabha, T.A. Tamilselvi***

Abstract

Organic is an upcoming and growing market throughout the world. More people were aware of the benefits and significance of consuming organic products. The study aims to examine the attitude of the consumers towards the organic food products. The study was conducted among the general public. A total of 150 samples were studied. The study was carried out in Salem city. This city was selected purposively because most of the rural people were engaged in Agriculture. Organic products are widely available in Salem city. Survey method was used to collect data from the respondents through well-structured questionnaire. The first section consists of demographic profile of the target respondents such as gender, age, marital status, education, nature of the family, family monthly income and employment status. Questions related to reasons for purchasing organic food products were also included. The second section consists of constructs related to consumers' attitude. Four variables such as Health consciousness, Organic food knowledge, food safety and food attributes were selected for the study. Consumers' attitude was examined using Exploratory Factor Analysis. The study concludes that respondents are more concerned about their health and they prefer to consume organically produced food products.

Keywords: Artificial Colours, Concern for Health, Food Quality, Monthly Income, Safety Concern.

Introduction

Increased interest in organically grown foods is getting popular in both developed and developing countries (Wang et al., 2019; Nguyen et al., 2019). The definition of organic foods varies depending on the various types of organic products available, which have implications for growing applying organic methods. There is no evidence that eating organic foods is more beneficial and healthier than eating traditionally

* *Research Scholar (Part Time), Department of Commerce, Sri Ganesh College of Arts and Science, Salem, Periyar University, Salem. E-mail: prabha.nivi@gmail.com*

** *Assistant Professor, Department of Corporate Secretaryship, The Quaide Milleth College for Men, Chennai. E-mail: tatamilselvi@gmail.com*

grown foods because there is no evidence directly supporting the health benefits and disease prevention as a result of consuming organic products (Forman et al., 2012). Organic farming is defined as an approach to plant and animal husbandry that avoids the use of synthetic chemicals, herbicides, hormones, fungicides (Jones, Hill, & Hiller, 2001), antibiotics, genetic engineering, and irradiation.

Organic concept includes food safety, environmental issues, health issues as well as animal welfare (Rezai, Teng, Mohamed, & Shamsudin, 2012). To qualify as organic, a product must be produced on farms that do not use primarily synthetic pesticides (Kapuge, 2016), herbicides, or fertilisers, and that do not have enough buffer zones to reduce contamination in neighbouring lands for at least three years prior to harvesting (Ozturk & Islam, 2014).Natural farming was created with the goal of supplying safe and high-quality nourishment without the use of synthetic compound items. As a result, organic agriculture not only saves the environment but also improves public health, resulting in major economic and social benefits for rural regions. Consumer and public establishment interest in organically produced foods has grown, particularly in developed countries (Nithya, Kiruthika , & Dhanaprakhash, 2022).

The COVID-19 pandemic has boosted demand for organic foods, with customers believing that these foods will raise immunity and function as anti-viral ammunition. As a result, organic food stores all around the world are witnessing considerable sales growth (Gumber & Rana, 2021). Indian consumers are becoming more concerned about their health as a due to rising levels of education and knowledge (Anish & Ramachandran, 2016), more disposable money, global exposure, and government initiatives. Over the last decade, organic food products have acquired broad attention and approval in India's domestic market. In 2018, the Indian organic food market was worth USD 704 million. According to industry experts, it will grow at a CAGR of 25.25% during 2022-2027 (Imarc, 2022). Despite the fact that the organic food industry has experienced steady growth and latent expansion, it is clear that organic food consumption is relatively limited.

There have been studies that show that customer attitudes are important because organic food products are more expensive when compared to traditional food products. This could be one of the factors contributing to a decrease in the consumption of organic food products (Yin, Wu, Du, & Chen, 2010). As consumer confidence in conventional food declines and consumer awareness of the importance of rational nutrition in determining good health status grows, the modern market is constantly on the lookout for organic food (Kiczorowska, Samoliñska, Klebaniuk, Kowalczuk-Vasilev,

& Wójcik, 2017). Through this study the researcher aims to examine the consumers' attitude towards organic products.

Review of Literature

Attitude is a psychological construct, a mental and emotional entity that is inborn in or identifies a person. Attitude is the combination of consumers' feelings, beliefs, and behavioural intentions towards a product. Consumer actions regarding organic food are influenced by attitudes, which are in turn influenced by a complex set of thoughts, motivations, and experiences (Yiridoe, Bonti-Ankomah& Martin, 2005). Attitude is the most important predictor of intention to buy organic products (Yadav & Pathak, 2016). The Multi-Attribute Model, which states that attitude toward a product is a function of beliefs and perceptions about its attributes, can be used to measure attitude (Fishbein & Ajzen, 2009). Tri-component model assesses the attitude of the customers (Sandhe & Joshi, 2017). The most significant perceived barrier to procure organic food is the cost. Income is only a partial instructive factor that has been surpassed by psychographic variables.

Organic or green food products with low chemical residuals have become more famous across the world (Yu, Gao, & Zeng, 2014). Organic products are classified as high prices, scarce supply, less awareness and limited availability (Orboi, Banes, & Petroman, 2017). Cost information was imprecise, and the price sensitivity of organic consumers was lower than that of occasional or non-organic consumers (Jessica & Stephan, 2017). Major reason for not purchasing organic products was price. Organic products are marketed for higher prices (Morar & Avia – Carmen, 2013). Reduction in price and increase in productivity will enhance the positive attitude among non-organic buyers (Krishnakumare & Niranjan, 2016). Organic foods are also said to provide numerous benefits, including improved health and sustainable production. However, they frequently lack client support, resulting in lower market demand due to a lack of data, trust, and information about such food products (Neha, 2017).

According to the affect-behavior-cognition (ABC) method, attitudes have three components: affective, behavioural, and cognitive. A consumer's feelings toward a particular product are referred to as affects. Behavior refers to a consumer's actions or intentions in response to a specific product or the consumer's intention (Babin and Harris, 2010; Solomon, 2011). Consumer intention was found to be determinant of corresponding behaviour. Several studies have found that customers' attitudes toward purchasing organic food products have a positive influence on patrons' intentions to purchase organic food products (Chen, 2007), (Dean et al., 2008). The attitude varies

from person to person, time to time, and situation to situation in order to effectively and deliberately connect with individuals, thoughts, and viewpoints to make a purchase decision. So, in order to facilitate consumer purchase intentions and loyalty, companies should learn about individual attitudes toward environmental issues (Ueasangkomsate and Santiteerakul, 2016) and organic product knowledge.

As a result, it is critical that companies improve individuals' attitudes in order to increase purchase intention and loyalty by a) providing information on specification labels about the characteristics of organic food that are helpful in making purchase decisions and loyalty; and b) providing information on specification labels about the characteristics of organic food that are helpful in making purchase decisions and loyalty. b) providing trustworthy advertisement informing about the benefits of organic food, which enables in changing consumers' attitudes and cognitive thinking in their purchasing decisions; and c) by making them feel like they are a part of the planet and environment, and raising awareness about environmental issues by making food more organic (Mendon, Noronha, Nayak, Manezes, & Frank, 2019).(Seyed, Sadati, Fami, & Del, 2010) in their study highlights that Organic consumption has been characterised into four factors such as institutional barriers, cultural barriers, feed quality barriers, and economical barriers.

Method

The prime aim of the study was to examine the customers' attitude towards organic products among general public in Salem city. The study also aims to find out the reasons for purchasing organic food products in the study area. The study adopts convenience sampling method and total samples drawn for the study was 150 in Salem city. Survey method was used to collect data from the respondents through well-structured questionnaire. After the thorough review from the past studies the scales and items for the questionnaire was drafted. The survey questionnaire consists of two sections. The first section consists of demographic profile of the target respondents such as gender, age, marital status, education, nature of the family, family monthly income and employment status. Questions related to reasons for purchasing organic food products were also included.

The second section consists of constructs related to consumers' attitude. Four variables such as Health consciousness, Organic food knowledge, food safety and food attributes were taken for the study. Each variable has 6 items and all these items were measured using five point Likert scale. Five point Likert scale was purposively used because it is one of the widely accepted scale containing five points because it gives clarity to the respondents. Strongly Agree was assigned the value as 5, Agree with 4, Neutral with

3, Disagree with 2 and Strongly Disagree with the value as 1. The data collected from the target respondents were analysed using SPSS 26. Consumers' attitude was examined using Exploratory Factor Analysis. The overall reliability was tested and Cronbach Alpha value was 0.868 for 30 items. Table 1 showing Reliability value for constructs.

Table 1 Reliability value for constructs

Construct	Number of items	Cronbach Alpha
Health Consciousness	06	0.840
Organic Food Knowledge	06	0.888
Food safety	06	0.877
Food Attributes	06	0.834

Results

Percentage Analysis

Table 2 Distribution of demographic profile of the respondents

Particular		Frequency (N=150)	%
Gender	Male	81	54.0
	Female	69	46.0
Age (in years)	Below 20	29	19.3
	21 – 30	68	45.3
	31 – 40	29	19.3
	Above 40	24	16.0
Marital Status	Married	95	63.3
	Unmarried	55	36.7
Education	School	46	30.7
	UG	54	36.0
	PG	32	21.3
	Professional	18	12.0

Family Monthly Income	Less than Rs.20,000	25	16.7
	Rs.20,001 – Rs,40,000	66	44.0
	Rs.40,001 – Rs.60,000	29	19.3
	Above Rs.60,000	30	20.0
Nature of family	Joint	73	48.7
	Nuclear	77	51.3
Employment status	Student	29	19.3
	Employed	63	42.0
	Self employed	38	25.3
	Professional	20	13.3

Table 2 shows the distribution of respondents based on demographic profile. Majority of the respondents were male with 54%. 45.3% of the respondents belong to the age group between 21-30 years. 63.3% of the married respondents give more importance to organic foods. 44% of the respondents' family monthly income was Rs.20,001 – Rs, 40,000. 48.7% of the respondents live as joint family and 42% of the respondents were employed and they have more knowledge on organic food products.

Results from Henry Garrett Ranking

Table 3 Reasons for purchasing organic food products

S.No	Particulars	Mean Score	Rank
1.	Health	60.96	I
2.	Environment	55.09	II
3.	Necessity	50.07	IV
4.	Status	47.25	VI
5.	Peer pressure	47.06	VII
6.	Taste	42.45	IX
7.	Nutrition value	50.41	III
8.	To avoid Genetically modified organism	49.35	V
9.	Quality	44.53	VIII

Table 3 describes the reasons for purchasing organic food products. Based on the mean score, health was ranked first with the highest mean score of 60.96. 'Environment' ranked second with the mean score of '55.09' and 'Nutritional value' ranked third with the mean score '50.41'. Followed by necessity, to avoid genetically modified organism, status, peer pressure, quality and taste respectively. Hence it is concluded that maximum number of respondents give preference for health because the most popular proverb also says 'Health is wealth'. So the respondents are very health conscious and concerned more about health.

Results of Exploratory Factor Analysis

Table 4 Consumers' attitude towards organic products among general public

Statements	Factor 1	Factor 2	Factor 3	Factor 4
I know what organic food means	0.850	-	-	-
Media provides ample information about organic food	0.840	-	-	-
Doctors suggest us to use the organic food products because of its health benefits	0.838	-	-	-
I have a good knowledge about organic foods	0.838	-	-	-
I have a good opinion on organic food	0.807	-	-	-
I do understand the benefits of each and every organic food product that I use	0.645	-	-	-
I am aware that conventional foods are not safe as they are genetically modified	-	0.870	-	-
I am concerned about food safety	-	0.849	-	-
Food that I eat should be safe	-	0.795	-	-
Excess use of chemicals in super markets to keep the food products fresh may cause food poison	-	0.780	-	-
I am aware that conventional foods are not safe as they are genetically modified	-	0.754	-	-
Organic food products are available to us as provided by nature(no modification in shape, size, colour, odour and nutrition)	-	-	0.838	-
Organic food products are animal friendly	-	-	0.814	-

Organic food products are high in quality	-	-	0.797	-
Organic food products are tastier than the hybrid food products	-	-	0.788	-
Organic food products do not have any artificial colours and flavours	-	-	0.702	-
As organic is natural, it will not cause damage to my health	-	-	-	0.845
As organic foods are produced without using pesticides/fertilizers, It is safe to consume	-	-	-	0.793
I consume organic food to protect my health	-	-	-	0.773
I think my food choices play a major role towards my health	-	-	-	0.772
Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.754		
Bartlett's Test of Sphericity	Approx. Chi-Square		1831.803	
df	190			
Sig.	0.000			
Total variance explained	67.678			

The result of factor analysis shows Kaiser-Meyer-Olkin Measure of Sampling Adequacy value is 0.754. It implied that the reliability of the scale was good. Factor analysis by Principal Component Analysis with Varimax rotation identified four Eigen values which are greater than 1. Factor analysis was applied on the 30 statements of consumers' attitude. This analysis extracted a four-factor solution with 67.67% of the total variance which is more than that of 60% of the total variance suggested by Hair et al., 2010). The first factor extracted has been named as '*Knowledge about organic products*', the second factor has been named as '*Safety concern*', the third factor has been named as '*Food quality*' and the fourth factor has been named as '*Concern for health*'.

Conclusion

In recent years, people have been facing many health issues due to food products that are not produced organically but through traditional methods. In past few decades, farmers have been using more fertilizers and pesticides which are high in chemicals. These issues can be rectified only by producing the food products organically. The

demand for the organic food products have been increased in recent years especially during COVID-19 most of the people turned to buy organically and hygienically produced food products. Awareness and knowledge about the organic food products has changed the mind-set and lifestyle of the consumers. Now a days organic food shops has been opened every nook and corner.

Consumers have wide varieties of choices, and these are made easily available to them through online mode. After the world pandemic and continuous lockdown has paved way for purchasing food products and other necessary household items through online shopping. This opportunity has made the customers to explore more about organic food products. In the study area, male respondents has more knowledge towards organic food products because they get information from their peer group, relatives, friends etc. in most of the family, Male takes decision because most of the organic products are costly when compared to the locally available food products. Most of the respondents were employed and their monthly family income ranged from Rs.20,000 to Rs.40,000; they could spend a reasonable amount for purchasing organic food products.

Reasons for purchasing organic food products: most of the respondents prefer to consume because organic foods are good for health. Now-a-days they are more concerned about their health as well as family members' health especially children, those who are in early 13 or less. Four factors such as 'Knowledge about organic products', 'Safety concern', 'Food quality' and 'Concern for health' have been extracted through exploratory factor analysis. Respondents have enough and adequate knowledge of organic products and their varieties. They are also concerned about food quality, safety measures, and their health. The study concludes that respondents are more concerned about their health and they prefer to consumer organically produced food products.

References

Anish, K., & Ramachandran, K. (2016). Consumer's awareness and attitude towards organic food products in Coimbatore City. *International Journal of Multidisciplinary Research and Development, 3*(9), 147-155.

Babin, B., & Harris, E. (2010). *Consumer Behavior.* Cengage Learning.

Chen, M. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality and preference, 18*(7), 1008-1021.

Dean, M., Raats, M., & Shepherd, R. (2008). Moral Concerns and Consumer Choice of Fresh and Processed Organic Foods. *Journal of Applied Social Psychology, 38*(8), 2088-2107.

Fishbein, M., & Ajzen, I. (2009). *Predicting and Changing Behavior: The Reasoned Action Approach.* New York: Psychology Press. doi:https://doi.org/10.4324/9780203838020

Forman, J., Silverstein, J., Bhatia, J., Abrams, S., Corkins, M., & de Ferranti, S. et al. (2012). Organic Foods: Health and Environmental Advantages and Disadvantages. *Pediatrics, 130*(5), e1406-e1415. doi: 10.1542/peds.2012-2579

Gumber, G., & Rana, J. (2021). Who buys organic food? Understanding different types of consumers. *Cogent Business & Management, 8*(1). doi:https://doi.org/10.1080/23311975.2021.1935084

Imarc. (2022, March 07). *India Organic Food Market: Industry Trends, Share, Size, Growth, Opportunity and Forecast 2022-2027*. Retrieved from www.imarcgroup.com: https://www.imarcgroup.com/indian-organic-food-market

Jessica, A., & Stephan , Z. (2017). Can't buy me green? A Review of Consumer Perceptions of and Behaviour toward the Price of Organic Food. *Journal of Consumer Affairs, 51*(1), 211-251.

Jones, P., Hill, C., & Hiller, D. (2001). Case study: Retailing organic food products. *British Food Journal, 103*(5), 358-365.

Kiczorowska, B., Samoliñska, W., Klebaniuk, R., Kowalczuk-Vasilev, E., & Wójcik, I. (2017). Pregnant women's attitudes towards organic food. *Poland Journal of Public Health, 127*(4), 159-163.

Krishnakumare, B., & Niranjan, S. (2016). Consumer Attitude towards organic food product. *International Journal of Current Research, 8*(10), 39730-39732.

Kapuge, K. (2016). Determinants of organic food buying behavior: special reference to organic food purchase intention of Sri Lankan customers. *Procedia Food Science, 6*, 303-308. doi:10.1016/j.profoo.2016.02.060

Mendon, S., Noronha, S. F., Nayak, S., Manezes, A. D., & Frank, D. (2019). Antecedents and Consequences of Attitude towards Organic Food. *International Journal of Management and Business Research, 9*(4), 06-21.

Morar, & Avia – Carmen. (2013). *Ecologic marketing. Compared study on organic marketing - traditional marketing.* Bacau: Rovimed.

Neha, S. (2017). A study of consumer behaviour towards organic food and the moderating effects of health consciousness. *Journal of Marketing Management, 36*(3), 45-79.

Nithya , N., Kiruthika , R., & Dhanaprakhash, S. (2022, February 22). Shift in the mindset: increasing preference towards organic food products in Indian context. *Organic Agriculture*. doi:https://doi.org/10.1007/s13165-021-00370-2

Nguyen, H., Nguyen, N., Nguyen, B., Lobo, A., & Vu, P. (2019). Organic Food Purchases in an Emerging Market: The Influence of Consumers' Personal Factors and Green Marketing Practices of Food Stores. *International Journal Of Environmental Research And Public Health, 16*(6), 1037. doi: 10.3390/ijerph16061037

Orboi, M. D., Banes, A., & Petroman, C. (2017). Social issues on consumer attitudes towards organic food products. *Journal on Processing and Energy in Agriculture, 21*(4), 219-221.

Ozturk, D., & Islam, A. (2014). Marketing of Organic Products in Turkey. *Eyup University Journal of Social Science Research., 9*(1), 75-94.

Rezai, G., Teng, P., Mohamed, Z., & Shamsudin, M. (2012). Consumer' awareness and consumption intention towards green foods. *African Journal of Business Management, 6*(12), 4496-4503.

Sandhe, A., & Joshi, A. (2017, July). Consumers' Attitude towards Organic Food Products in Vadodara –An Exploratory Study. *Pacific Business Review International, 10*(1), 32-40.

Seyed, S., Sadati, A., Fami, H., & Del, P. (2010). Survey Consumer Attitude Toward Barriers of Organic Products (OP) in Iran: A Case Study in Gorgan City,. *World Applied Sciences Journal, 8*(11), 1298-1303.

Solomon, M. (2011). *Consumer Behavior.* Upper Saddle, New Jersey: Prentice Hall.

Ueasangkomsate, P., & Santiteerakul, S. (2016). A study of consumers' attitudes and intention to buy organic foods for sustainability. *Procedia Environmental Sciences, 34*, 423-430. doi:10.1016/j.proenv.2016.04.037

Wang, X., Pacho, F., Liu, J., & Kajungiro, R. (2019). Factors Influencing Organic Food Purchase Intention in Developing Countries and the Moderating Role of Knowledge. *Sustainability*, *11*(1), 209. doi: 10.3390/su11010209

Yadav, R., & Pathak, G. (2016). Intention to purchase organic food among young consumers: Evidences from a developing nation. *Appetite, 96*, 122–128. doi:https://doi.org/10.1016/j.appet.2015.09.017

Yin, S., Wu, L., Du, L., & Chen, M. (2010). Consumers' purchase intention of organic food in China. *Journal of the Science of Food and Agriculture, 90*(8), 1361-1367.

Yiridoe, E., Bonti-Ankomah, S., & Martin, R (2005). Comparison of consumer perceptions and preference toward organic versus conventionally produced foods: A review and update of the literature. Renewable Agriculture And Food Systems, 20(4), 193-205.doi:10.1079/raf2005113

Yu, X., Gao, Z., & Zeng, Y. (2014). Willingness to pay for the "Green Food" in China. *Food Policy, 45*, 80-87.

Digitalisation in Management Education: Bridging Opportunities and Inequalities

Srinivas Josyula, U. Naganjani**, V. Sita****

Abstract

Business schools have always been affected by the changes in business settings, technological changes, and globalization, which have spurred turbulence and created a hyper-competitive business environment. The pandemic disrupted socio-economic lives worldwide. It has extensively disrupted the education system, affecting nearly 1.6 billion learners in more than 190 countries across the globe. Closure of schools and other higher education institutions has affected 94 percent of the world's student population, up to 99 per cent in low and lower-middle-income countries. Research on the digital transformation of learning and teaching in management education has experienced an increasing attention in recent times. Effective online learning necessitates active learning and interaction, which reiterates training. The challenge, thus, includes convincing teachers to shift from a traditional lecture to more interactive and functional techniques for online learning. Teacher education should also clarify how technology can be used in education.

Keywords: Educational Worth, Inclusive Strategies, Learning Motivation, Need for Training, Reactive Business Model.

Introduction

Governments worldwide have proclaimed that education is a fundamental human right, and it is a right which has an immediate impact on the realization of all the other human rights and sustainable development goals (UN, 2020). But, the pandemic, although public health disruption, a once-in-a-generation "black swan" event (Taleb,

* *Associate Professor, IIM Visakhapatnam, Andhra Pradesh. Email: jsrinivas@iimv.ac.in*

** *Assistant Professor, Symbiosis University of Applied Sciences, Indore. Email: unaganjani@gmail.com*

****Senior Professor, School of Management Studies, University of Hyderabad, Hyderabad. Email: sita.vanka@uohyd.ac.in*

This work is based on the ARIF project funded by the Association of Indian Management Schools (AIMS), Hyderabad.

2007), emerged as a grand crisis that widely impacted "life as we know it" (Howard-Grenville, 2021) and had a debilitating impact on every sector, including higher education in general, and management education, in particular.

Higher Education and Management Education

Peter Drucker (1997) predicted long ago that big university campuses will be relics and would not survive. Gerrard (2000) endorsed the view and claimed that 'the concept of the fully developed virtual university will replace campus-based universities. These statements sum up the strategic direction that the institutions are expected to take today, given the paradigm shift taking place in the global business environment. Right from the beginning, management education has been highly dependent and impacted by the changes in the business world. Historically, business schools have always been affected by the changes in business settings, technological changes, and globalization, which have spurred turbulence and created a hyper-competitive business environment.

With the emerging digital economy fueled by the growth and access to the Internet, management education continues to face multiple challenges impacting the basic inception of management education programs and pedagogies. In response, administrators at higher education institutions, in general, and many management schools in particular have re-examined the nature and form of their programs and designed various forms of innovation to fit their own contextual needs (Hamilton et al., 2000). Within the Higher Education sector, it is observed that business management education continued to grow in prominence and high demand because of its tremendous societal impact. Some business schools evolved as centers of great focus and growth, generating good revenue (Kapse et.al., 2025).

On the other hand, the pandemic disrupted socio-economic lives worldwide. Many large businesses were closed or limited their operations (Jones et al., 2020). Further, the pandemic has extensively disrupted the education system, affecting nearly 1.6 billion learners in more than 190 countries across the globe. Closure of schools and other higher education institutions (HEIs) has affected 94 percent of the world's student population, up to 99 per cent in low and lower-middle-income countries (UN, 2020). Therefore, the scenario of 'virtuality' in HEI, as described by Gerrard (2000) and Marquez-Ramos and Mourelle (2018), has become a reality in the current context.

As the effects of the COVID-19 pandemic are becoming more apparent, it is seen that different organizations- government, businesses, and B schools had differential effects, risks and impact, and abilities to deal with the crisis and hence have reacted to the

crisis differently to adapt, survive, and mitigate the economic consequences. In the context of management education, the most prominent reactive adaptation strategy was the acceleration of online and blended teaching delivery (Amankwah-Amoah, Khan, Wood, & Knight, 2021) to ensure continuity in the business school education. Some Business schools responded through recorded lectures through online platforms, while others, due to lack of digital infrastructure, restricted/postponed the academic activities for students and teachers.

The institutions had an arduous task in harmonizing semesters and academic calendars, as some programs have been successfully implemented online while others were not. The difficulties encountered when switching abruptly from in-person education to remote instruction utilizing digital technology are confirmed by institutional experience. (Zimmerman, 2020), thereby having multiple impacts on students including the loss of internships, separation from their homes and campuses, and the need to master new technologies in addition to their subject matter (Govindarajan and Srivastava, 2020).

Digital adoption in management education, appeared to be the only solution globally and many universities across the world were successful in implementing digital education (Crawford et al., 2020; Dick et al., 2020). Institutional experience, however, revealed inequalities which manifested in different forms. The recent past witnessed management research paying increasing attention to socio-economic inequalities in the process (Amis, Mair, & Munir, 2020; Bapuji, Ertug, & Shaw, 2020 and Rygh, 2019) Further, due to the extensive digital content that was created to face the situation in the last few years, it has become easy for the institutions and the students to complete some courses online (MOOCS, SWAYAM) which are recognized by the national agencies like UGC, AICTE as equivalent to credits completed by the student as part of the course requirements.

A hybrid system, thus, emerged in the given context, throwing up challenges for some institutions and students, calling for attention of the scholars for scientific and systematic studies in this direction. This paper examines the strategic direction taken by the business schools and highlights the inequalities among the stakeholders due to the adoption of digital tools. To this end, the paper focuses on the digital ecosystem in management education in the first section, examines digitalization and digital learning in the next section and then proposes a framework for the digital learning environment in management education. The digital-induced inequalities that arise due to the adoption of digital tools are discussed at the end.

Digital Ecosystem in Management Education:

The attitude of B schools towards digitalization is seldom discussed (Coman *et al*., 2020). Although management scientists predicted the role of ICT long ago, the pandemic has influenced the rapid pace of digitalization (Kamal, 2020). Therefore, an increasing number of management institutions have introduced digital-related content to build themselves based on transformation (Gamage *et al*., 2020). Research on the digital transformation of learning and teaching in management education has experienced an increasing attention in recent times. Prior studies examined the learning, teaching, and course effectiveness in the business environment. COVID- 19 forced institutions to respond immediately through the digitalization of learning and teaching for continuity (Turnbull et al., 2021).

Recent literature examined the impact of technology on the learning process (OECD Education Working Papers, 2025). However, the use of technology, its implications and its diffusion in management education gained popularity long ago (Frand, 1999). It is also true that business schools pioneered the use of digital tools in higher education for quite some time through their distance education, blended learning, and continuous life-long programs (Castañeda and Selwyn, 2018). Its use was limited to a few revenue-generating programs. The support system, including course content, delivery, evaluation, and academic administration, were implemented with in-house expertise. As businesses grew over time, advanced solutions like the LMS, MOOCs, digital libraries etc., were added to meet the challenges of the 21st century.

Digitalization can be defined as the use of digital technologies to renew, simplify, and improve processes, tasks, and products (Tømte *et al*., 2019). An extensive examination of the literature on business management education in general reveals that one of the 15 most crucial research and development subjects is digital learning. (Hwang *et al*., 2021). In this context, literature evidence different definitions of digital learning based on their distinct position or point of view (Lin et al., 2017). Digital learning was first proposed by Jay Cross in 1999 as e-learning (Yoon et al., 2012), after which technological advances changed the perspective on digital learning. The term meant delivery with digital forms of media through the Internet or digital tools and provided learning content/teaching methods to enhance student's learning, all the same, improve teaching effectiveness and promote individual knowledge and skills (Holzberger *et al*., 2013).

Literature also contemplates digital learning as a digital tool to acquire digital teaching material for online or offline learning activities (Anttila *et al*., 2012) through wired or wireless networks (Hockly, 2012). Keane (2012) provides four parts – digital teaching

material, digital tools, and digital delivery and asynchronous learning. Literature thus reveals different versions of digital learning among different contexts. The opportunities created by digitalization are many and varied, particularly useful for students (Aagaard and Lund, 2019; Henderson et al., 2017). With a high degree of learning readiness (Tang *et al*., 2021), digital adoption was need-based than holistic. Further, the solutions were separate and often fragmented with students and teachers experiencing this as various standalone digital tools and not as a shared digital learning space (Delere *et al*., 2021). Literature revealed inequalities due to digital adoption demonstrating inequality in management education.

Research on Inequality

The adverse impact of socio-economic inequality is reflected in various facets of individual lives, including education, health, and employment. The most impacted groups have historically been women, minorities, and physically challenged. The Covid-19 pandemic has accentuated the inequalities (Bapuji *et al*., 2020) reiterated by the UN report (2020), which has impacted nearly 70 percent of the global population, including those in the most developed nations and some fastest growing countries like India and China. The focus of Management research on socio-economic inequalities has been a trend in the recent past (Amis, Mair, & Munir, 2020; Bapuji, Ertug, & Shaw, 2020a; Rygh, 2019) due to the adoption of digital technologies.

Inequalities in socio-economic factors like gender, age, education, income and habitat (Hasan and Bao, 2020, Czerniewicz et al., 2020) have led to a digital divide focusing on the access and usage of technology (Soomro *et al*., 2020) and the inequity created by the access and use of digital technologies (Hidalgo *et al*., 2020), resulting in an unequal learning environment. Recent literature reveals the systemic nature of disparities rooted in the cyclical relationship between poverty and educational inequalities, particularly in relation to access to higher education (Fitzgerald et al., 2025). Educational equity remains a critical issue in countries like USA and other countries even today., where disparities in access and outcomes exist across socioeconomic, racial, gender, and geographical areas. These inequities influence student success at all levels, from general education to higher education (Naim, 2025) worthy of investigation for the mitigating strategies.

Research Method

Based on the synthesis of theory, this conceptual paper addresses the concept of Inequality, as a new dimension, and a focal phenomenon (Becker and Jaakola,2020) in

view of the digitalization of management education. While there is no best way to structure a conceptual paper, the method aims to extend the thinking, and highlight the concept in the developing context. The research design takes the primary stakeholders and direct participants in the management education ecosystem - the institutions, instructors and students. Drawing inferences from the virtual learning environment (VLE) proposed by Piccoli et al. (2001), we suggest a new framework for Digital Learning environment (DLE) in management education. The proposed framework considers the claims and grounds discussed in the extant literature, associated with the benefits of digitalization of management education (Hirschheim, 2008) to summarize the current understanding of the digital induced inequalities during the pandemic.

Digital Learning Environment (DLE)

The learning environment constitutes social interactions, organizational cultures and structures, and physical and virtual spaces that surround and shape participants' experiences, perceptions, and learning (The Macy Foundation, 2018). The interplay of these elements results in stark inequalities in society, emphasizing the need for a comprehensive review to highlight the socio-economic inequalities in management education. Prior research argued for a comprehensive review of educational initiatives to include primary and direct participants in that program, including administrators, instructors, and students (Alavi and Gallupe, 2003).

This comprehensive review model applies to management education too. Taking cues from the Virtual Learning Environment (VLE) effectiveness model proposed by Piccoli, Ahmed, and Ives (2001), this paper develops a Digital Learning Environment (DLE) with the institutions, instructors, and students as the primary participants. The environment comprises the elements that induce the digitally induced socio-economic inequalities that emerge while implementing the digital learning environment in management education (figure 1).

The pandemic attracted attention of the institutions, impacting the business of the business schools, and the larger field of management education (Laasch *et al*., 2022), signaling a redesign and a reshape (Krishnamurthy, 2020). These changes affect the institutional vision, forcing them to transform its digital strategy (Hashim *et al* 2022). Studies evidence that their transformation is associated with digital technologies (Limani *et al*, 2019). However, these occur in a context of deep and persistent inequality, where the digital divide remains real and wide with the pandemic somehow exposing

the many inequities in the educational systems within and across countries (Barrot *et al*., 2021).

The reactive business model of institutions to continue business as usual, to the proactive, innovative holistic business models induces inequalities leading to differential DLE resulting in skewed implementation. The financial stimulus from the government to a public funded institution provided short-term relief. However, the private universities had challenges in mobilizing the required resources for digital transformation. Their ranking and accreditation were a basis for funding in developing economies like India. The issues faced by the marginalized and privileged institutions manifest in fundamentally different ways to implement a DLE, demonstrating cultural inequality (Azionya, and Nhezdi, 2021).

Research suggests applying marketing concepts in higher education (Woodall et al, 2014) with the customer experience approach as the most frequently applied marketing concept (Koris and Nokelainen, 2015). Students are seen as a source of revenue and customers because they recommend a university (Borraz-Mora *et al*., 2020) for sustaining the demand, mandating them to take care of their learning needs, expectations, and satisfaction. Studies confirmed that they preferred a customer's approach while the institutions preferred the product approach (Obermiller *et al*., 2005). The use of modern digital technologies in teaching enhances student experience (Arambewela & Hall, 2013). However, the use of digital technologies has raised the cost (DeShields *et al*., 2005), leading to the consumerization of management education (Jabbar *et al*., 2018).

Further studies revealed that the learning environment is the greatest challenge that students needed to overcome, particularly distractions at home (noise) and limitations in learning space and facilities adversely impacting students learning experience (Barrot *et al*., 2021). In this context, it could be inferred that the implementation of digital tools in management education during the pandemic affected the relationship between the students and management.

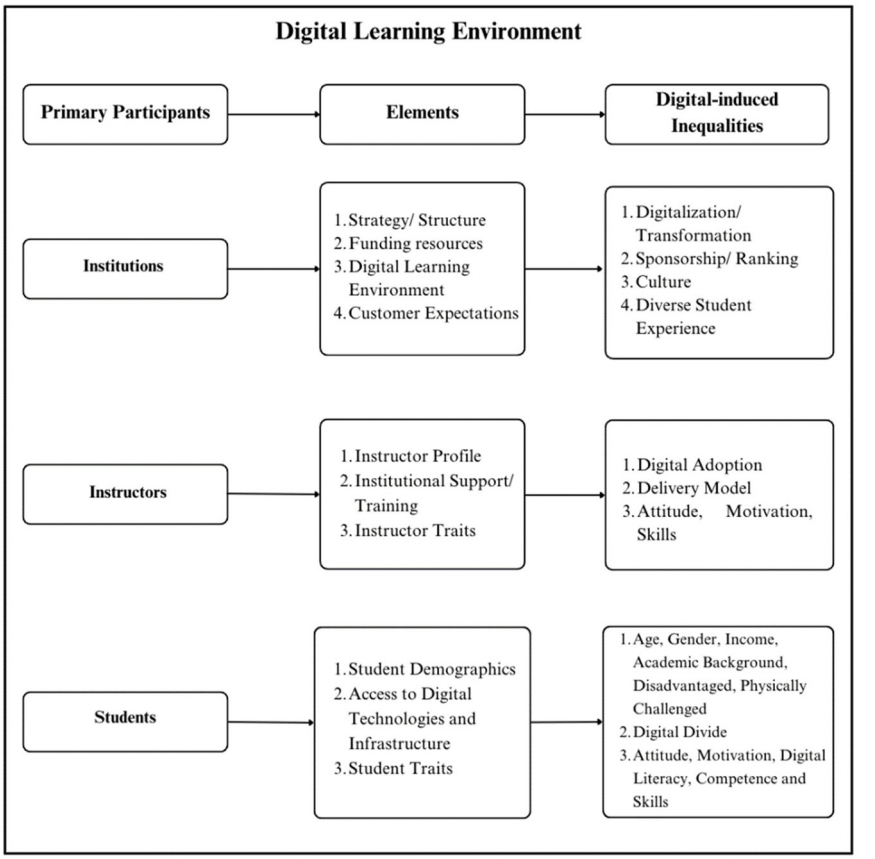


Figure: Digital Learning Environment

Instructors

Instructors as facilitators contribute to the learning environment. Research suggests a correlation between the attitude of teachers towards technology adoption and its impact on the use of technology in work, learning and on students (Njiku *et al*., 2019; Rohaan *et al*., 2010). Further, the attitude towards technology acceptance can also improve job satisfaction among teachers (Elias *et al*., 2012). However, prior evidence highlights computer literacy as an ideology based on an agenda that teachers are motivated by the needs of businesses rather than by their inherent educational worth (Goodson and Mangan, 1996). Post pandemic, the needs, expectations and demands of the students in the future will be different from the students in the past (Marquez-Ramos and Mourelle, 2018), with greater acceptance of remote/online activities (Canvas, 2020).

Contrary to this, prior research confirmed the fear the teachers had in terms of the obsolete skills they have acquired over time and the consequent feeling of not being able to reach their students using the old methods and techniques (Palfrey and Gasser, 2008). Because of unequal access to technology and increasing inequality in student success and engagement, the same fear of wanting to learn how to apply technology in teaching continued. Inequalities between elite and marginalized instructors might look magnified even in the developed world like Australia (Hillier, 2018) due to the instructor profile in terms of educational qualification, experience and age, impacting digital adoption and broadening the digital divide.

Moreover, 21st-century learning motivation does not center on the teacher- centered transmission models. Commenting on traditional classroom teaching, Bates (2015) observes that transmitted teaching has lost its relevance and requires newer methods in the changed context. Young teachers under 40 years (than older teachers) and male teachers (than female teachers) were more confident of their ICT skills (Fraillon *et al*., 2018). The digital tools that the teachers used were word processing and making presentations (European Commission, 2019), necessitating instructor training. In order to effectively teach online, even seasoned teachers need new skills and training (Gonzales, 2025).

Further effective online learning necessitates active learning and interaction, which reiterates training. The challenge thus includes convincing teachers to shift from a traditional lecture to more interactive and functional techniques for online learning. Teacher education should also clarify how technology can be used in education (Artacho *et al*, 2020). Studies concluded that local conditions, infrastructure and levels of expertise dictate the content and delivery methods of instructor training (Zemliansky, 2021). The need for training for a smooth transition to the new modes of teaching without any prior preparation not only contributes to significant problems for educators (Elsa *and Eka*, 2020) and causes educators to face a variety of difficulties in integrating technology into education (Ghavifekr *et al*., 2016). Surveys also reported a high need for training in the use of ICT in the teaching and learning process (OECD, 2020).

Similarly, the Forbes survey reports that only 9.7% of teachers enjoy the current teaching and learning process, and the others revealed their frustration with education in the pandemic era (Forbes, 2020). The experiences of the instructors also show that perceived technological affordance for teaching, perceived human roles for teaching, and assumed pedagogical methodologies for teaching and related learning, all had an

impact on the degree of transmission and engagement. (Cutajar, 2019). Factors like teacher attitude towards technology adoption, the changing expectations of the students leaning towards digital learning, the fear of obsolete skills and applying technology in teaching, the instructor profile, instructor training, unequal access to technology and teacher experiences on the transmission of technology appear to be the elements of inequality in the implementation of the DLE (Andoh, 2012; Bui,2022).

Student Experience

Students, as the customers, are essential stakeholders in the learning process. According to Technology Acceptance Model (Davis 1989; Davis & Venkatesh, 1996) reiterated by studies (Ngai *et al*., 2007) and confirmed that the students' attitude towards technology is critical to the access, use and gaining knowledge in a digital learning environment (Magen-Nagar & Shonfeld, 2018). This attitude of students towards technology helps to demonstrate global citizenship behaviors leading to sustainable development (Lee *et al*., 2017).

However, the learning choices of students are fast changing (Gibney, 2020; Witze, 2020). These choices are determined by the socio-economic factors, skills, and abilities, which in turn depend on the cognitive, non-cognitive skills and environmental factors. The non-cognitive skills and traits such as personality, social, and emotional characteristics are considered critical contributing factors to learning (Escueta *et al*, 2020). Research raised significant concerns about the availability and digital access in their transition to DLE. It was found that the economic inequality among the students hampered their ability for effective participation (Montacute and Cullinane, 2021; and Schuck and Lambert, 2020). The emergence of millennials, with new intentions and outlook, demonstrates greater acceptance of digital learning and tools, thus increasing the market for blended learning. The pandemic, however, shows that more students than before are lagging in their academic performance and studies (Canvas, 2020).

Research on inequalities due to the emergence and adoption of digital technologies has included socio-economic factors, especially gender, age, race, educational level, income, and habitat (Hasan and Bao, 2020; Czerniewicz *et al*., 2020). This digital inequality/divide is additionally determined by physical access, motivation, abilities, and real utilization of digital technologies. Evidence also highlighted the lack of equity in the access and use of digital technologies (Hidalgo *et al*., 2020), thus differentiating the "haves" and the "have-nots" in access and resources for learning. The institutional support may help disadvantaged students to access technologies.

Further, studies cautioned the lack of guidance needed for productive utilization - a "digital-use divide" (Brotman 2016) and may negatively impact if digitalization continues to intensify inequities. Moreover, factors like network coverage, device type, time of day, socio-economic status and digital competence negatively impacted student participation and involvement, calling for more inclusive strategies to mitigate digitally induced inequalities for students from rural and low socio-economic households (West and Karsten, 2016, Azionya and Nhedzi, 2021).

Conclusion

The purpose of this paper was to highlight the inequalities induced due to adoption of digital tools in management education in the context of the opportunities created by the pandemic and propose a framework for the digital learning environment. A glance at the research in management education confirmed prior research on the positive side of digitalization. The perspective presented in this paper underscores inequality from the critical stakeholder experience and contributes to the ongoing debate on inequality research. Empirical studies conducted world- wide understood digitalization as the only opportunity for business continuity and hyped digitalization as *the go to strategy* to survive, grow and sustain during the pandemic signaling attention towards a holistic approach.

The proposed framework is best suited for the developing context. Nevertheless, it contributes to the emerging discussion representing the inequality because of the reactive adoption of digital technologies in management education. Operationalization of the DLE framework provides a perspective when institutions are preoccupied with digital adoption as the only means and an end in management education. However, the integration of key stakeholders in providing value to DLE is the need of the hour. The operationalization of the DLE framework may help identify the variation and intensity of the inequalities and also highlight additional elements in the inequality research in management education. Empirical research in future can explore for insights and knowledge on the best digital – organization fit (D- O fit) The right D.O fit helps institutions in coming up with a novel and sustainable strategy mitigating the digitally induced inequalities, to ensure inclusive and equitable quality of education and attain sustainable development goals (SDG-4).

COVID-19 has evolved to be a kind of "catalyst" for the adoption and increasing use of digitalization, alongside presenting foreseen and unforeseen opportunities, challenges, and cost leading to negative and positive feedback loops. The world is also a witness to significant social and economic consequences across different businesses

and sectors, with a considerable demand for transitioning businesses towards digital transformation. This increase in the use of digital technologies, however, raises concerns about exposing the digital divide irrespective of whether it is private or public organizations, including higher education, (Kamal and Choudrie,2020), in developed and developing countries and societies within the same country (Miladinovic, 2020). Recent research confirms that digitalization may bring new opportunities, the process imparts risks that may be hard to mitigate and prepare for (Amankwah-Amoah et al., 2021). Digital adoption is clearly a means for survival and continuity. The extent of digital adoption, however, leading to enhanced outcomes remains to be investigated.

References

Aagaard, T. & Lund, A., 2019. *Digital agency in higher education: Transforming teaching and learning.* Routledge.

Alavi, M., & Gallupe, R. B. (2003). Using information technology in learning: Case studies in business and management education programs. *Academy of Management Learning & Education*, 2(2), 139-153e.

Amankwah-Amoah, J., Khan, Z. & Wood, G. (2021), "COVID-19 and digitalization: The great acceleration", *Journal of Business Research*, 136, 602–611.

Amis, J.M., Mair, J. & Munir, K.A., 2020. The organizational reproduction of inequality. *Academy of Management Annals*, 14(1), 195-230.

Anttila, M., Valimaki, M. & Hatonen, H. (2012). Use of web-based patient education sessions on psychiatric wards. *International Journal of Medical Informatics*, 81(6), 424433-424433.

Arambewela, R. & Hall, J., 2013. The interactional effects of the internal and external university environment, and the influence of personal values, on satisfaction among international postgraduate students. *Studies in higher education,* 38(7), 972-988.

Azionya, C.M. & Nhedzi, A. (2021). The digital divide and higher education challenge with emergency online learning: analysis of tweets in the wake of the Covid-19 lockdown. *Turkish Online Journal of Distance Education*, 22(4), 164–182.

Bapuji, H., Ertug, G. & Shaw, J.D., (2020a). Organizations and societal economic inequality: A review and way forward. *Academy of Management Annals*, 14(1), 60-91.

Bapuji, H., Patel, C. & Ertug, G. (2020*b*). Corona crisis and inequality: Why management research needs a societal turn. *Journal of Management*, 46(7), 1205–1222.

Barrot, J.S., Llenares, I.I. & Del Rosario, L.S., 2021. Students' online learning challenges during the pandemic and how they cope with them: The case of the Philippines. *Education and information technologies*, 26(6), 7321-7338.

Bates, A.W. (2015). *Teaching in a digital age: Guidelines for designing teaching and learning*. BCcampus.

Borraz-Mora, J., Hernandez-Ortega, B. & Melguizo-Garde, M. (2020). The influence of generic- academic competences on satisfaction and loyalty: The view of two key actors in higher education. *Journal of Higher Education Policy and Management*, Vol. 42 No. 5, pp. 563–578.

Brotman, S.N. (2016). *The real digital divide in educational technology*, Brookings Tech-Tank.

Castañeda, L. & Selwyn, N. (2018). More than tools? Making sense of the ongoing digitizations of higher education. *International Journal of Educational Technology in Higher Education*, 15(1), 1–10.

Coman, C., Lg, T. & Meses (2020). Online teaching and learning in higher education during the coronavirus pandemic: Students' perspective. *Sustainability*, 12(24), 10367 - 10367.

Crawford, J., Butler-Henderson, K. & Rudolph, J. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 1–20.

Cutajar M. (2010). Teaching Using Digital Technologies: Transmission or Participation. *Education sciences*. 9. 226-226.

Czerniewicz, L., Agherdien, N. & Badenhorst, J. (2020). A wake-up call: Equity, inequality and Covid-19 emergency remote teaching and learning. *Postdigital Science and Education*, 2(3), 946–967.

Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, 13(3), 319–340.

Davis, F.D. & Venkatesh, V. (1996). A critical assessment of potential measurement biases in the technology acceptance model three experiments. *International Journal Human-Computer Studies*, 45(1), 19–45.

Delere, M., Höfer-Lück, H. & Boehncke, M. G. (2021). Analog VS. Digital spaces-how university lecturers evaluate possibilities for preservice teachers education within the corona- pandemic. *INTED 2021 Proceedings*, 3425–3432.

Deshields, O.W., Kara, A. & Kaynak, E. (2005). Determinants of business student satisfaction and retention in higher education: applying Herzberg's two-factor theory. *International Journal of Educational Management*, 19(2), 128–139.

Dick, G., Akbulut, A.Y. & Matta, V. (2020). Teaching and learning transformation in the time of the Coronavirus crisis. *Journal of Information Technology Case and Application Research*, 22(4), 243–255.

Elsa, R. & Eka, P. (2020). Teacher's Challenges Towards Online Learning in Pandemic Era. *LET: Linguistics, Literature and English Teaching Journal*, 10(2), 71–88.

Escueta, M., Nickow, A.J. & Oreopoulos, P. (2020). Upgrading education with technology: In- sights from experimental research. *Journal of Economic Literature*, 58(4), 897–996.

Fitzgerald, A., Avirmed, T., & Battulga, N. (2025). Exploring the factors informing educational inequality in higher education: A systematic literature review. *Perspectives: Policy and Practice in Higher Education*, *29*(4), 199-209.

Forbes (2020). URL *https://www.forbes.com/sites/petergreene/2020/12/08/surveyduring-pandemic-teachers-are-working-more-and-enjoying-it-less/?sh=3ad5aa775f8e.*

Fraillon, J., Ainley, J. & Schulz, W. (2018), "Computer and information literacy framework", *IEA International Computer and Information Literacy Study*, pp. 13–23.

Frand, J.L. (1999). URL *www.anderson.ucla.edu/faculty/jasonfrand.*

Gamage, K.A., Wijesuriya, D.I. & Ekanayake, S.Y. (2020). Online delivery of teaching and laboratory practices: continuity of university programmes during COVID-19 pandemic. *Edu- cation Sciences*, 10(10), 291–291.

Gerrard, B. (2000). Virtual Universities - The Way Ahead*? Industry and Higher Education*, 14(5), 317-326.

Ghavifekr, S., Kunjappan, T. & Ramasamy, L. (2016). Teaching and Learning with ICT Tools: Issues and Challenges from Teachers' Perceptions. *Malaysian Online Journal of Educa- tional Technology*, 4(2), 38–57.

Gibney, E. (2020). Whose coronavirus strategy worked best? Scientists hunt most effective policies. *Nature*, 581(7806), 15–17.

Gonzales, Jennifer Batican (2025). Optimizing Online Teaching: An Explanatory Sequential Study on the training needs of the Pre-service English Teachers. *International Journal of Learning, Teaching and Educational Research*. 24 (1).

Goodson, I.F. & Mangan, J.M. (1996). Computer literacy as ideology. *British Journal of Sociology of Education*, 17(1), 65-79.

Govindarajan, V. & Srivastava, A. (2020). What the shift to virtual learning could mean for the future of higher ed. *Harvard Business Review*, 31(1), 3–8.

Hamilton, D., Mcfarland, D. & Mirchandani, D. (2000). A decision model for integration across the business curriculum in the 21st century. *Journal of Management Education*, 24(1), 102–126.

Hasan, N., & Bao, Y. (2020). Impact of "e-Learning crack-up" perception on psychological distress among college students during COVID-19 pandemic: A mediating role of "fear of academic year loss. *Children and Youth Services Review*, 118, 105355.

Henderson, M., Selwyn, N., & Aston, R. (2017). What works and why? Student perceptions of 'useful' digital technology in university teaching and learning. *Studies in higher education*, 42(8), 1567-1579.

Hidalgo, A., Gabaly, S. & Morales-Alonso, G. (2020). The digital divide in light of sustainable development: An approach through advanced machine learning techniques. *Technological Forecasting and Social Change*, 150, 119754–119754.

Hillier, M. (2018). Bridging the digital divide with offline e-learning. *Distance Education*, 39(1), 110-121.

Hockly, N. (2012). Substitute or redefine. *Modern English Teacher*, 21(3), 40-42.

Holzberger, D., Philipp, A. & Kunter, M. (2013). How teachers' self-efficacy is related to instructional quality: A longitudinal analysis. *Journal of Educational Psychology*, 105(3), 774-786.

Howard-Grenville, J. (2021). Grand challenges, Covid-19 and the future of organizational scholarship. *Journal of Management Studies*, 2021-2021.

Hwang, A., Fornaciari, C.J. & Asarta, C.J. (2021). An analysis of highly-cited scholarship in business and management education: Findings and future agendas. *The International Journal of Management Education*, 19(1), 100447–100447.

Jabbar, A., Analoui, B., Kong, K. & Mirza, M. (2018). Consumerisation in UK higher education business schools: higher fees, greater stress and debatable outcomes. *Higher Education*, 76, 85-100.

Jones, L., Palumbo, D., & Brown, D. (2020). Coronavirus: A visual guide to the economic impact. *BBC News*, June 30, 2020.

Kamal, M. M., & Choudrie, J. (2020). The double-edged sword of COVID-19 and the new world of work in academic institutions. *Chartered Association of Business Schools (CABS)* Blogs Retrieved on August 20, 2020.

Kamal, M. M. (2020). The triple-edged sword of COVID-19: understanding the use of digital technologies and the impact of productive, disruptive, and destructive nature of the pandemic. *Information Systems Management*, 37(4), 310-317. *https://doi.org/10.1080/10580530. 2020.1820634.*

Kapse, M. L., Jaheer Mukthar, K. P., Das, A., Maria, Seema, N., & Nirmala, M. M. (2025). Evolution and Challenges of Management Education in India: A Historical and Contemporary Analysis. In *International Conference on Business and Technology* (383-389). Cham: Springer Nature Switzerland.

Koris, R. & Nokelainen, P. (2015). The student-customer orientation questionnaire (SCOQ): Application of customer metaphor to higher education. *International jour- nal of educational management*.

Krishnamurthy, S. (2020). The future of business education: A commentary in the shadow of the Covid-19 pandemic. *Journal of Business Research*, 117, 1–5.

Laasch, O., Ryazanova, O. & Wright, A.L. (2022). Lingering covid and looming grand crises: envisioning business schools' business model transformations. *Academy of Management Learning & Education*, 21(1), 1-6.

Lee, R.B., Baring, R. & Maria, M.S. (2017). Attitude towards technology, social media usage and grade-point average as predictors of global citizenship identification in Filipino University Students. *International Journal of Psychology*, 52(3), 213–219.

Limani, Y., Hajrizi, E., & Stapleton, L. (2019). Digital transformation readiness in higher education institutions (HEI): The case of Kosovo. *IFAC-PapersOnLine* 2019; 52(25):52–57.

Macy Jr, J. (2018). Foundation. Achieving competency-based, time-variable health professions education: Recommendations from the *Macy Foundation* Conference.

Magen-Nagar, N. & Shonfeld, M. (2018). The impact of an online collaborative learning program on students' attitude towards technology. *Interactive Learning Environments*, 26(5), 621–637.

Márquez-Ramos, L. & Mourelle, E. (2018). On the relationship between society and higher education: what path should we take. *Distance Education*, 39, 19–36.

Miladinovic, S. (2020), URL *https://www.neweurope.eu/article/is-covid-19- accelerating-digitalisation-or-exposing-the-digital-divide.*

Hashim, M.A., Tlemsani, I. & Duncan Matthews, R. (2022). A sustainable University: Digital Transformation and Beyond. *Education and Information Technologies*, 27(7), 8961-8996.

Montacute, R. & Cullinane, C., 2021. Learning in lockdown. *Research Brief. Sutton Trust.*

Naim, A. (2025). Equity across the educational spectrum: innovations in educational access crosswise all levels. *Frontiers in Education* . Vol. 9. Frontiers Media SA. https://doi.org/10.3389/feduc.2024.1499642

Ngai, E., Poon, J. & Chan, Y. (2007). Empirical examination of the adoption of WebCT using TAM. *Computers & Education*, 48, 250–267.

Obermiller, C., Fleenor, P. & Peter, R. (2005). Students as customers or products: perceptions and preferences of faculty and students. *Marketing Education Review*, 15(2), 27-36.

OECD (2020). URL *https://www.oecd.org/education/the-impact-of-covid-19- oneducation-insights-education-at-a-glance-2020.pdf.*

Palfrey, J. & Gasser, U. (2008). Opening Universities in a Digital Era. *New England Journal of Higher Education*, 23(1), 22–24.

Piccoli, G., Ahmed, R. & Ives, B. (2001). Webbased virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. *MIS Quarterly*, 25, 401–426.

Rohaan, E.J., Taconis, R. & Jochems, W.M. (2010). Reviewing the relations between teachers' knowledge and pupils' attitude in the field of primary technology education. *International Journal of Technology and Design Education*, 20, 15-26.

Schuck, R.K. & Lambert, R. (2020). Am I doing enough?" Special educators' experiences with emergency remote teaching in Spring 2020. *Education Sciences*, 10(11), 320–320.

Soomro, K.A., Kale, U. & Curtis, R. (2020). Digital divide among higher education faculty. *International Journal of Educational Technology in Higher Education*, 17(1), 1–16.

Taleb, N.N. (2007). The black swan: The impact of the highly improbable. Volume 2. Random house.

Tang, Y.M., Chen, P.C. & Law, K.M. (2021). Comparative analysis of Student's live online learning readiness during the coronavirus (COVID-19) pandemic in the higher education sector. *Computers & Education*, 168–168.

Turnbull, D., Chugh, R., & Luck, J. (2021). Transitioning to E-Learning during the COVID-19 pandemic: How have Higher Education Institutions responded to the challenge? *Education and Information Technologies*, *26*(5), 6401-6419.

URL *https://unsdg.un.org/resources/policy-brief-education-during-covid-19- and-beyond. (2020).*

URL *https://www.un.org/development/desa/dspd/wp-content/uploads/sites/22/2020/ 08/sg_ policy_brief_covid-19_and_education_august_2020.pdf. (2019).*

West, D.M. & Karsten, J. (2016), URL *https://www.brookings.edu/blog/techtank/2016/ 07/ 18/rural-and-urban-america-divided-by-broadband-access/.*

Witze, A. (2020). Universities will never be the same after the coronavirus crisis. *Nature*, 582, 7811, 162–165.

Woodall, T., Hiller, A., & Resnick, S. (2014). Making sense of higher education: Students as consumers and the value of the university experience. *Studies in Higher Education*, 39(1), 48-67

Yoon, J., Kwon, S. & Shim, J.E. (2012). Present Status and Issues of School Nutrition Programs in Korea. *Asia Pacific Journal of Clinical Nutrition*, 21(1), 128133–128133.

Zemliansky, P. (2021). Faculty development training in online instruction at a Norwegian university: An experience report. *IEEE Transactions on Professional Communication*, 64(1), 84–95.

Zimmerman, J. (2020). URL *https://www.chronicle.com/article/Coronavirusthe-Great/ 248216.*

Employee Attitude towards E-HRM in IT Organizations

Rupa Rathee, Renu Bhuntel***

Abstract

Increase in interaction between employees and managers has been possible with the integration of e-HRM in the IT companies. There has been ease of availability of information and it has provided greater speed to functions. In order to smoothen HR functions e-HRM has been implemented by various organizations. Therefore, this study was needed to understand the attitude of employees towards e-HRM. Data for the students included a sample of 940 IT employees from IT organizations located in the National Capital Region, India. The sampling technique used for data collection was convenience sampling. The data was collected using google forms and a standardized questionnaire was used for this purpose. SPSS version 23 was used for data analysis. The study results showed that there was a positive relationship between perceived usefulness and attitude towards e-HRM. Similarly, there was a positive relationship between perceived ease of use and attitude towards e-HRM.

Keywords: HR Functions, Innovation, Appraisal, Quality of Work, Transformation of HRM.

Introduction

Associations are not simple blocks, mortar or hardware, they likewise incorporate individuals. Individuals are important for group of laborers in organizations. In this way, human asset the executives include everything connected with the business worker relationship and manages overseeing and supporting the association's kin and related processes. It is fundamental for business capability and critical to the association's successful presentation.Traditional process of HR is changing with use of e-HRM. This has changed the perception of employees regarding various HR functions. e-HRM is a wide-ranging concept. According to Kavanagh *et al*. (2009), "e-HRM can be used for transactional activities (i.e. those that involve day-to-day

* *Associate Professor, DMS, DCRUST, Murthal, Haryana, India.*
E-mail: ruparathee@gmail.com

** *Research Scholar, DMS, DCRUST, Murthal, Haryana, India.*
E-mail: bhuntelrenu101@gmail.com

transactions and record keeping); traditional HRM activities such as recruitment, selection, training, compensation and performance management; and transformational activities that add value to the organization."

It is the main programming right now in any business endeavor or office. This is because of the reality, individuals give forceful advantage to a firm and managing people is the area of e-HRM. Human resources are the wellspring of arriving at forceful addition in view of its ability to change over different assets alongside money, device and techniques in to yield for example item. In the IT field there is a need of the new software every time according to the requirement of the employees and demand of the customers. Organization helps the customers or employees for providing these services in the form of the new updates in software.

In this manner e-HRM helps because in every organization there is a need of the HR services. With the help of the IT services work becomes easier for both the organization and for the employees. For example, in the HR department there is need in the process of HRM activities like recruitment, training, compensation, performance appraisal etc. While using e-HRM in the organization employees are satisfied with their work because it is easy to use and understandable. Due to the busy schedule and lack of the time everyone whether it is the employer and employee, both save their own time with e-HRM.

Review of Literature

De Alwis et al. (2022) determined the influence of e-HRM implementation on evolution of HRM function in Sri Lanka. The researchers found that one of the most important benefits of e-HRM was that it relieved the human resource from intermediary roles, thus making place of strategic roles. It transformed the HR practitioners from handling the role of administration to that of strategic planning. Myllymaki (2021) found that the full potential of e-HRM literature has not been realised on various theoretical perspectives. Therefore, a socio material perspective was proposed for this study. The research suggested the exploration of materiality of technology. This means paying attention on how material artefacts are intertwined requiring thorough description of organizational context.

Johnson et al. (2020) studied why it is becoming inevitable for companies to understand e-HRM. The study revealed that due to the labour-intensive nature of hospitality industry it faces several challenges, major among with is turnover. The research explored how technology can ensure a fit between the employees and organization which would lead to increase in rate of retention. Ahmed and Ogalo (2019) elaborated

on the growing shift from HRM to e-HRM and why it is becoming inevitable for businesses to understand and accept it. The discussion also highlighted certain explanation of the capabilities and possibilities of e-HRM and its forte in evaluation with conventional HRM practices. In parallel, the object additionally expounds on HRM as a strategic idea while unleashing on factors referring to technological primacy.

Bhate (2016) had presented the review of performance appraisal process implementation in e-HRM software. Also, the author studied the automated processes used to streamline performance reviews and appraisal process. A sample of 50 companies was selected for the survey and 130 questionnaires were distributed for the research. Simple random sampling technique was used. The study found that e-HRM software reduced paperwork and easily monitored and executed performance appraisal process and easy to use. Yusoff et al. (2015) focused on the conceptual model, in which five variables were studied in perceived ease of use, perceived usefulness, e-HRM trust, HR roles and attitude. Sample size collected for this research was 300. A questionnaire based on seven-point Likert scale was used. They found that technology adoption model helps to reduce the transformation of HRM activities from manual conduct to automatic use of e-HRM technology.

Ibrahim and Yusoff (2015) investigated techno stress as antecedent factortowards e-HRM in Malaysian government agencies. Semi structured interviews, from seven HRMIS (Human Resource Management Information System) experts in three state governments of Malaysia were conducted. The finding of the paper focused on the implementation of HRMIS in Malaysian government agencies and solving the problem of training and development program in this issue. The HRMIS specialists were of the assessment that three qualities (disposition, innovation status and availability for change) were identified with all parts of techno stress. Esen and Erdogmus (2014) focused on the e-HRM field and effects of technology readiness on technology acceptance. The result of the outcome showed that creativity and hopefulness of innovation status affected apparent handiness and saw usability. Weakness and discomfort had no beneficial outcomes.

Patil (2013) focused on the employee satisfaction and attitude towards e-HRM. The author also focused on the challenges of e-HRM to IT employees. This was a descriptive study. Structured questionnaire was used. The sample size was 20 IT employees in software organizations. The e-HRM technology supports the HR function through web technology-based channels. More than 70 per cent employees were highly satisfied with secured database in e-HRM. 51 per cent employees satisfied with easier

communication among various departments. 50 per cent employee said e-HRM saves time.

Marler and Fisher (2013) examined the research on e-HRM to give proof put together examination with respect to the relationship of e-HRM and vital HRM. The examination directed audit of 40 investigations distributed from 1999 to 2011. The investigation found that view of e-HRM and key HRM directed at the individual level. A proof that vital HRM predicts e-HRM results and the relationship seemed subordinate, nonetheless, research plans were not adequate to set up causal bearings. There was no evidence that showed e-HRM predicted strategic outcomes.

Erdogmus and Esen (2011) found out the impacts of innovation status on innovation acknowledgment in the e-HRM field. Information was gathered from 65 HR chiefs from top 500 biggest private area organizations. Two models were utilized in this examination TAM (Technology Acceptance Model) and TRI (Technology Readiness Index). The discoveries of study showed that four kinds of innovation status effectively affect apparent convenience and saw usability about e-HRM. Hopefulness and inventiveness measurements of innovation preparation effectively affect apparent handiness and saw usability. Inconvenience and uncertainty measurements don't have any critical impacts on apparent handiness and saw usability.

Voermans and Veldhoven (2007) in their research focused on demeanor towards e-HRM. An assessment model was figured ward on the two speculations from reciprocal investigation zone: Davis' advancement affirmation model and Ulrich's model on HR occupations. Online overview was accumulated from 99 bosses and 257 delegates inside Philips (Hardware). Factor investigation (head parts, varimax) was utilized. It was found that differentiations in saw comfort of current IT systems, similarly as the inclined toward HR occupations fundamental accessory (high tendency) and delegate legend (low tendency) related to helpful mindset towards e-HRM structures. For bosses, client support was moreover found to be a mark of a motivational mindset towards e-HRM.

Objective of the study

To study the attitude of employees towards e-HRM in Indian IT organizations.

Hypotheses

The attitude of employees towards e-HRM includes the study of relationship between attitude and perceived usefulness and ease of use. In previous studies a positive relationship has been found between perceived usefulness and attitude towards

e-HRM. Also, there is a positive relationship between perceived ease of use and attitude towards e-HRM (Voermans and Veldhover 2007, Erdogmus Esen 2014, Yusoff et al., 2015). Thus, the following were hypothesized:

H_{1a} There is a positive relationship between perceived usefulness and attitude towards e-HRM.
H_{1b} There is a positive relationship between perceived ease of use and attitude towards e-HRM.

Method

Sample size and population: The study used descriptive research design. The data was collected from IT companies located in National Capital Region, India. A sample of 940 IT employees was taken.

Data collection: The data was collected using standardized questionnaire using online Google forms.

Measures: The questionnaire consisted of four sections - the first section included statements related to perceived ease of use, second related to perceived usefulness and third attitude towards e-HRM. Lastly, demographic information of the respondents was recorded. The items were measured on 5-point Likert scale ranging from 1 "strongly disagree" to 5 "strongly agree".

Results

The details of the analysis are given in the Tables 1 to 4.

Table 1: Items used for measuring Attitude towards e-HRM

S. No	Statement(Attitude towards e-HRM) Perceived ease of use, Perceived usefulness, General attitude towards e-HRM
Perceived ease of use	
1	e-HRM is easy to learn to work
2	It is easy to work with e-HRM the way that I want it to
3	e-HRM is inflexible
4	In general, e-HRM is easy to use
5	It is hard to understand how e-HRM works exactly

Perceived usefulness	
1	e-HRM improves the quality of my work
2	e-HRM enables me to do my work quickly
3	Using e-HRM improves my personal effectiveness
4	It is useful to use e-HRM
General attitude towards E-HRM	
1	e-HRM is an improvement over traditional HRM
2	HR should make more use of electronic HRM
3	HR should not be automated any further
4	e-HRM is an improvement for the organization
5	e-HRM is an improvement for the employees

Source: (Voermans and Veldhoven 2007)

Table 2: Reliability Statistics

Cronbach's Alpha	N of Items
.830	14

The value of Cronbach's alpha for the fourteen statements was .830.

Correlation

The relationship between perceived usefulness towards attitude of the employees is significant. So that the hypothesis H_{1a} was accepted because there was a positive relationship between perceived usefulness and attitude towards e-HRM.

H_{1a} There is a positive relationship between perceived usefulness and attitude towards e-HRM.

The relationship between perceived ease of use towards attitude of the employees was significant. The hypothesis H_{1b} was accepted because there was a positive relationship between perceived ease of use and attitude towards e-HRM.

H_{1b} There is a positive relationship between perceived ease of use and attitude towards e-HRM".

Table 3: Correlation between perceived usefulness and attitude

Correlations										
Statements	**A1**	**A2**	**A3**	**A4**	**A5**	**A10**	**A11**	**A12**	**A13**	**A14**
A1	**1.000**									
A2	.414**	**1.000**								
A3	.161**	.314**	**1.000**							
A4	.435**	.400**	.327**	**1.000**						
A5	.307**	.211**	.105**	.141**	**1.000**					
A10	.287**	.275**	.221**	.279**	.110**	**1.000**				
A11	.200**	.285**	.342**	.342**	.053	.321**	**1.000**			
A12	.176**	.213**	.225**	.236**	.339**	.081*	.180**	**1.000**		
A13	.386**	.288**	.112**	.344**	.159**	.348**	.223**	.126**	**1.000**	
A14	.292**	.251**	.326**	.303**	.164**	.387**	.368**	.143**	.345**	**1.000**

***. Correlation is significant at 0.01 level (2-tailed).*

**. Correlation is significant at 0.05 level (2-tailed).*

From the Table 3, it was found that there was a correlation between the perceived ease of use and general attitude towards e-HRM. Correlation was significant at the 0.01 level with two tailed significance. It was also significant at the 0.05 level two tailed.

The value of correlation r = .287 for the statement A1 with A10, correlation r = .275 for the statement A2 with A10, correlation r = .221 for the statement A3 with A10, correlation r = .279 for the statement A4 with A10 and correlation r = .110 for the statement A5 with A10. From the Table 3, it was clearly shown that there was a correlation between the statements: "e-HRM is easy to learn to work (A1), it is easy to work with e-HRM the way that I want it to (A2), e-HRM is inflexible (A3), in general, e-HRM is easy to use (A4), it is hard to understand how e-HRM works exactly (A5); with e-HRM is an improvement over traditional HRM (A10)."

The correlation r = .200 for the statement A1 with A11, correlation r = .285 for the statement A2 with A11, correlation r = .342 for the statement A3 with A11, correlation r = .342 for the statement A4 with A11, correlation r = .053 for the statement A5 with A11. From the table 3 it was clearly found that there was significant and positive

correlation between the statements "e-HRM is easy to learn to work, it is easy to work with e-HRM the way that I want it to, e-HRM is inflexible, in general, e-HRM is easy to use, it is hard to understand how e-HRM works exactly; with HR should make more use of electronic HRM."

Further correlation r = .176 for the statement A1 with A12, correlation r = .213 for the statement A2 with A12, correlation r = .225 for the statement A3 with A12, correlation r = .236 for the statement A4 with A12, correlation r = .339 for the statement A5 with A12. From the Table 3, it is clearly shown that statements "e-HRM is easy to learn to work, it is easy to work with e-HRM the way that I want it to, e-HRM is inflexible, in general, e-HRM is easy to use, it is hard to understand how e-HRM works exactly were correlated with HR should not be automated any further."

Next, the correlation r = .386 for the statement A1 with A13, correlation r = .288 for the statement A2 with A13, correlation r = .112 for the statement A3 with A13, correlation r = .344 for the statement A4 with A13, correlation r = .159 for the statement A5 with A13. As seen from Table 3, the correlation between the statement "e-HRM is easy to learn to work, it is easy to work with e-HRM the way that I want it to, e-HRM is inflexible, in general, e-HRM is easy to use, it is hard to understand how e-HRM works exactly; with e-HRM is an improvement for the organization" was significant.

Lastly, correlation r = .292 for the statement A1 with A14, correlation r = .251 for the statement A2 with A14, correlation r = .326 for the statement A3 with A14, correlation r = .303 for the statement A4 with A14, correlation r = .164 for the statement A5 with A14. The table clearly shows that correlation between the statements "e-HRM is easy to learn to work, it is easy to work with e-HRM the way that I want it to, e-HRM is inflexible, in general, e-HRM is easy to use, it is hard to understand how e-HRM works exactly with e-HRM is an improvement for the employees" was significant."

The relationship between perceived usefulness towards attitude of the employees was significant. So, the hypothesis H_{1a} was accepted because there was a positive relationship between perceived usefulness and attitude towards e-HRM.

Table 4: Correlation between perceived ease of use and attitude

Correlations									
Statements	**A6**	**A7**	**A8**	**A9**	**A10**	**A11**	**A12**	**A13**	**A14**
A6	**1.000**								
A7	.294**	**1.000**							
A8	.327**	.273**	**1.000**						
A9	.341**	.200**	.337**	**1.000**					
A10	.317**	.287**	.256**	.306**	**1.000**				
A11	.322**	.359**	.298**	.219**	.321**	**1.000**			
A12	.157**	.181**	.244**	.184**	.081*	.180**	**1.000**		
A13	.261**	.174**	.290**	.453**	.348**	.223**	.126**	**1.000**	
A14	.398**	.298**	.331**	.363**	.387**	.368**	.143**	.345**	**1.000**

***. Correlation is significant at 0.01 level (2-tailed).*

**. Correlation is significant at 0.05 level (2-tailed).*

From the Table 4, it was clear that there was a correlation between the perceived usefulness and general attitude towards e-HRM. Correlation was significant at the 0.01 level with two tailed significance. Also, it was significant at the 0.05 level two tailed.

It was found that the correlation r = .317 for the statement A6 with A10, correlation r = .287 for the statement A7 with A10, correlation r = .256 for the statement A8 with A10, correlation r = .306 for the statement A9 with A10. From the table 4 it is clearly shown that there was correlation between the statements "e-HRM improves the quality of my work, e-HRM enables me to do my work quickly, using e-HRM improves my personal effectiveness, it is useful to use e-HRM is correlated with e-HRM is an improvement over traditional HRM (A10)."

The value of correlation r = .322 for the statement A6 with A11, correlation r = .359 for the statement A7 with A11, correlation r = .298 for the statement A8 with A11, correlation r = .219 for the statement A9 with A11. In Table 4, it is clearly shown that there is significant and positive correlation between the statements "e-HRM improves the quality of my work, e-HRM enables me to do my work quickly, using e-HRM

improves my personal effectiveness,it is useful to use e-HRM with HR should make more use of electronic HRM (A11)."

Further, correlation r = .157 for the statement A6 with A12, correlation r = .181 for the statement A7 with A12, correlation r = .244 for the statement A8 with A12, correlation r = .184 for the statement A9 with A12. As seen from Table 4, the correlation between the statements "e-HRM improves the quality of my work, e-HRM enables me to do my work quickly, using e-HRM improves my personal effectiveness, it is useful to use e-HRM with HR should not be automated any further (A12) was significant."

Next, correlation r = .261 for the statement A6 with A13, correlation r = .174 for the statement A7with A13, correlation r = .290 for the statement A8 with A13, correlation r = .453 for the statement A9 with A13. From the table 4 it is clearly shown that the statements "e-HRM improves the quality of my work, e-HRM enables me to do my work quickly, using e-HRM improves my personal effectiveness, it is useful to use e-HRM were significantly and positively correlated with e-HRM is an improvement for the organization (A13)."

Lastly, correlation r = .398 for the statement A6 with A14, correlation r = .298 for the statement A7 with A14, correlation r = .331 for the statement A8 with A14, correlation r = .363 for the statement A9 with A14. As seen from the table 4 the correlation between the statements "e-HRM improves the quality of my work, e-HRM enables me to do my work quickly, using e-HRM improves my personal effectiveness, it is useful to use e-HRM was sign with e-HRM is an improvement for the employees (A14)" was significant."

The relationship between perceived ease of use towards attitude of the employees was significant. So, the hypothesis H_{1b} was accepted because there was a positive relationship between perceived ease of use and attitude towards e-HRM.

Conclusion

The objective of this study was to find employee attitude towards e-HRM in IT organizations. For the fulfilment of this objective, correlation analysis was used. Statements A1 A2 A3 A4 and A5 were correlated with the statements A10 A11 A12 A13 A14 and A15. On the other hand, statements A6 A7 A8 and A9 were also correlated with the statement A10 A11 A12 A13 A14 and A15. So, it was found that there is a positive relationship between perceived usefulness and attitude towards e-HRM, thus hypothesis H_{1a} was accepted. There was a positive relationship between perceived

usefulness and attitude towards e-HRM. So similarly, Hypothesis H_{1b} was also accepted. There is a positive relationship between perceived ease of use and attitude towards e-HRM. Both the hypotheses H_{1a} and H_{1b} were accepted because of the existence of significant and positive correlations.

Suggestions

- The results of the study showed that the general attitude of employees regarding e-HRM was positive which was mainly due to perceived ease of use and usefulness. Therefore, organizations that were earlier apprehensive in using e-HRM can also start its implementation.
- Organizations must take care that while e-HRM implementation the data is secure and must implement stringent measures regarding accessibility of data.

Implications

- The study has some useful implications. The mere implementation of e-HRM would not fulfill its effectiveness. The attitude of employees must be such that they make the best use of e-HRM capabilities.
- The organizations must also try to make the e-HRM system easy to use so that the employees do not have any problem in adapting to it.

References

Ahmed, A., & Ogalo, H. S. (2019). From hrm to e-hrm: Contemporary developments from scholarly work. *Annals of Contemporary Developments in Management & HR (ACDMHR), 1*(1), 1-6.

Bhate, (2016). Study of use of e-HRM in performance appraisal process in IT organizations, *Indira Management Review, 10*(2), 62-72.

De Alwis, A. C., Andrliæ, B., & Šostar, M. (2022). The Influence of E-HRM on modernizing the role of HRM context. *Economies, 10*(8), 181.

Erdoðmuþ, N., & Esen, M. (2011). An investigation of the effects of technology readiness on technology acceptance in e-HRM. *Procedia-Social and Behavioral Sciences, 24*, 487-495.

Ibrahim, H., &Yusoff, Y. M. (2015). User characteristics as antecedents of techno stress towards EHRM: From experts' views. *Procedia-Social and Behavioral Sciences, 172*, 134-141.

Johnson, R. D., Stone, D. L., & Lukaszewski, K. M. (2020). The benefits of eHRM and AI for talent acquisition. *Journal of Tourism Futures.*

Kavanagh, M. J., Thite, M., & Johnson, R. D. (2009). The Future of HRIS. *Emerging Trends in HRM and IT*.

Marler, J. H., & Fisher, S. L. (2013). Human Resource Management Review An evidence-based review of e-HRM and strategic human resource management. *Human Resource Management Review*, *23*(1), 18-36. http://doi.org/10.1016/j.hrmr.2012.06.002

Myllymäki, D. (2021). Beyond the 'e-'in e-HRM: integrating a sociomaterial perspective. *The International Journal of Human Resource Management, 32*(12), 2563-2591.

Patil, U. V. (2013). The Role of E-HRM in increasing positive work attitudes among IT employees with special reference to Pune city, *1*(3), 27–35.

Voermans, M., & van Veldhoven, M. J. P. M. (2007). Attitude towards EHRM: An empirical study at Philips. *Personnel Review*.

Yusoff, Y. M., Ramayah, T., & Othman, N. Z. (2015). Why examining adoption factors, HR role and attitude towards using E-HRM is the start-off in determining the successfulness of green HRM. *Journal of Advanced Management Science*, *3*(4).

Exploring the Relationship between Lean Principles, Intellectual Capital and Firm Performance

*Deepa Venugopal**

Abstract

The synergy between Lean Management principles, intellectual capital, and firm performance is a dynamic nexus shaping modern business paradigms. Lean methods focus on efficiency and continuous improvement, while also nurturing employee skills and innovation. This enhances Intellectual capital—the valuable know-how within a company. When a company combines Lean practices and intellectual capital effectively, it becomes more competitive and resilient. While many studies have investigated the relationship between Lean Management Principles and corporate performance, the potential of Lean principles to enhance intellectual capital has often been overlooked. Furthermore, a straightforward method for quantifying organizational leanness is lacking. This study addresses these gaps by introducing an innovative approach named SLIM™ to measure organizational leanness. This method is applicable to various organizations, whether they have already adopted Lean practices or plan to do so. The methodology, which is patented and trademarked, underwent validation using data from two MSMEs spanning data from 2016 to 2021. The findings indicate a strong fit index and high predictive relevance. Ultimately, this research concludes that the adoption of Lean Management Principles can indeed foster intellectual capital, leading to improved financial performance.

Keywords: Assessment Models, Good Fitness of Index, SLIM™, PLS-Path Modelling, ROCE.

Introduction

Problem solving has become the quintessential component for driving success and sustenance in business. (Keki et.al 2020) reports that 90 % of the US industries do not know how to solve chronic business problems of which notable ones are quality problems. In this age of dis-continuity and disruptive innovation, Lean Philosophy is

* *Associate Professor, DJ Academy for Managerial Excellence, Coimbatore.*
Email: deepa.v@djacademy.ac.in

This work is based on the ARIF project funded by the Association of Indian Management Schools (AIMS), Hyderabad.

undisputedly the best answer to inculcate problem solving skills, bring continuous improvement, people empowerment, and waste reduction and thereby improve competitive advantage. (Womack and Jones 2003 p.15) describes 'Lean' as a way of doing "more with less and less human effort, less equipment, less time, and less space – while coming closer to providing customers with exactly what they want. Thus, Georges cu (2011) opines that Lean enterprise drifts away from traditional mass production system in terms of better management of people, operations, product, supplier, customer relations and creating better customer value. Lean can be considered as a culmination of Mass production and Craft production where good quality, large scale production, lowest wastage and low cost are guaranteed.

In the knowledge driven world, where better thinking and learning rules the roost, Lean principles acts as a catalyst for creating superior intellectual capital leading to competitive advantage. It is high time that academicians and researchers in the field of business ponder into this interesting area and bring in fresh insights. Such studies would be decisive and would go a long way in enriching hand full of subjects like Operations Management, Financial Management, Knowledge Management and Business Strategy. The researcher proposes to take up a study encompassing all the three areas vis– a – vis Lean management, Intellectual capital, and financial performance. A robust study in this area can accord managerial evidence that reduces ambiguities between theory, practice, and performance.

Objectives

- To develop Lean Performance Indicator to measure the leanness of the organization.
- To do a Y-O-Y comparison of Leanness, Rank and give recommendations.
- To evaluate the intellectual capital efficiency using **VAIC** $^{\mathbf{TM}}$ and rank
- To study the significant relationship between Lean manufacturing practices, intellectual capital, and firm performance.
- Leanness can impact and predict Intellectual capital efficiency & Firm Performance.

Review of Literature

Lean and Financial Performance & Growth: It takes only common sense to understand that successful implementation of best business practices would result in enhanced financial performance. But in case of Lean manufacturing (considered as a world class best practice) fall short of enough evidence to substantiate this relationship. Lean manufacturing flowers itself into distinct subset of practices like JIT (Just in Time),

TPM (Total productive Maintenance), SPC (statistical Process control), TQM (Total Quality Management), reengineering set up, Pull production, integrated product design etc. Toyota Motor Corporation has put all the above said lean practices under the gamp - TPS (Toyota Productive System) and for the past 60 years it has made sure that there is continuous improvement of the Lean practice. The engineering and financial success of Toyota is largely beholden to Lean manufacturing practices.

Most of the studies in lean are limited to a few components of lean and not all. Huson & Nanda (1995) studied on the impact of JIT and found that even though the direct effect of JIT is to reduce the unit cost, the overall implementation resulted in increase in per unit cost because of increased investment cost in capital and quality production systems. The study also showed a significant relationship between JIT implementation and EPS (Balakrishnan et al., 1996; Callen et al., 2000) Biggart & Gargeya (2002) found that only raw material inventory levels and WIP inventory management could be improved. Easton & Jarrell (1998) completed an exhaustive study on 108 TQM announcements and found that, these announcements had positive impact on stock returns that lasted even for 5 more years after announcements.

Hendricks and Singhal (1996) found that stock returns showed significant increase in mean stock return on smaller firms after the announcement of Malcolm Baldrige National Quality Award. Easton et al., 1998 studied the five-year performances following the implementation of JIT and it offered stronger positive significant results. Boyd et al. (2002) found that there is no significant relationship between JIT and ROE (Return on Equity). Callen et al. (2000) studied the impact of JIT practice on performance across plants by using sales ratio alone. Callen et al. (2000) looked at practice impact on performance across plants with sales ratio as the sole performance indicator, the sales ratio included WIP to Sales, Finished Goods Inventory to sales, operating profit to sales and contribution margin ratio and found a positive impact. Fullerton and McWatters (2001) found significant effects on ROA, ROS, and cash flow margin.

Lean and Intellectual Capital: Intellectual capital can be defined as intellectual resources that have been "formalized, captured and leveraged" to create assets of higher value (Prusak, 1998). According to Thomas Stewart "intellectual capital is something that cannot be touched, although it slowly makes you rich". The studies on IC were conducted in late 80's and Itami (1987) noted that there were differences in performance of firms. Edvinson, Skandia, Sullivan (1996) define IC as knowledge that can be converted into value. (Botnis, 1996; Edvinsson and Sullivan, 1996; Prusak, 1998; Stewart, 1991 and1995) is of the view that identifying, valuing, reporting and managing of IC assets are crucial for maintaining competitive advantage.

Edvinson and Malone (1997) view that intellectual capital is made up of Human capital and Structural capital. Pulic's approach uses human capital (VAHU), Physical Capital (VACA) and structural capital (STVA) to measure the Intellectual ability of a company. LEAN practices augment the intellectual capital of a company by enhancing human capital through the process of continuous learning, improvement, and empowerment; it impacts the physical capital by employing less investment to give more financial returns. Lean hugely benefits the structural capital by putting compending systems & processes in place. Intellectual capital encompasses all the building blocks of lean Practices This includes detailing on business processes, products, customer and value creation.

Intellectual capital and Lean process: In this turbulent knowledge era where rapid change is the order of the day, the only way for survival is to learn and adapt continuously (Chatzkel, 2002). Unlike tangible capital whose value decrease with use, Intellectual capital value increases with use. An intellectual capital driven company would be learning organisation and lean is all about learning and continuous improvement (Thomson 2014). (Gorecki&Pautsch,2018) states that lean strives to create maximum value for customers with minimum resources. Becker (2008) recognises human capital as one of the key factors for business growth. McDuffie (1995) addressed impact of human resource practices on lean performance by finding significant links between various JIT practices and HRM policies by looking at the number of hours taken to build a vehicle and number of defects reported by customer.(Burton 2016) surmises that organisations can extract maximum intellectual capital by hiring talented workforce, investing in them ,evaluating the quality of their work and motivating them by rewarding and involving them in decision making and entrusting with more responsibility.

Measuring Leanness in Organisations: Lean Manufacturing practices are intended to systematically eliminate wastes in different forms (MUDA), identify and reduce non-value-added activities in processes and thereby bringing in continuous improvement which in turn adds better value to the organisation and customer. (Susilawati, Tan, Bell, & Sarwar, 2015) Initiated by Toyota Automotive in Japan in the 1960s, its main concentration was a waste reduction as well as cost while improving product quality. However, as explained by Koren in The Global Manufacturing Revolution book (Koren, 2010), the first step of implementing lean is Value Stream Mapping of production which looks at the whole production processes, eliminating all possible non-value-added activities and culminating in a continuous, levelled, and stable production flow.

Important Lean Assessment Models: One of the major objectives of this study is to come out with a Lean measurement model to assess the Lean practices in an organisation. There are many assessment models which have been developed till date. The following are a few important ones.

Table 1: Lean Assessment Models (Shetty, 2011)

Name	Developed by	Description
Lean Enterprise Self-Assessment Tool (LESAT)	Massachusetts Institute of Technology (MIT)	It is composed of the assessment of 54 enterprise activities under the 3 sections of Leadership & Transformation, Lifecycle Process and Enabling Infrastructure. It covers thewhole organization;
Shingo Prize	Shingo Institute – Utah State University	This is a form of an award given for implementing the lean principles. Its auditing process requires training
Hung-da Wan	H. *Wan*, F. Frank Chen by University of Texas at San Antonio – USTSA	A chart based on the mathematical model, setting a pathway for improvement bases hypothetical quantitate measures
Strategos	Strategos Lean consultants	A simple model consisting of 3 to 6 questions. The results are summed and/or averaged to produce the Lean Index.
Lean-Rapid Plan Assessment (RPA)	Dr. R. Eugene Goodson	An assessment model consisting of visual information, graphs, diagrams, etc without metrics
Mahalanobis Distance	Srinivas Raghavan and Allada	A theoretical model serves to benchmark the performance data on the same 5 principlesas the LESAT.
General Motors Supplier	*Lean* Enterprise *Supply* Chain Development by General Motors (GM)	Focuses on 5 principles implementation through GM's supplier enterprises, to ensure mutual understanding and goal orientation towards lean and reducing waste.

The above given are a select few important lean assessment models. Most of the models including the above-mentioned list attempts to address various aspects of Lean practices. But hardly any model looks at the value addition created by Lean practices.

SLIM™ – Simplified Lean Integration Metric – A Measurement Model

This study adds to the literature and theory development by introducing a new model for calculating the value addition created though Lean practices. This method is named SLIM – Simplified Lean Integration Metric. It is registered for Trademark and a Patent by the author.

SLIM™ – Simplified Lean Integration Metric

- This relates to developing a metric to objectively assess the Leanness of an organization using the Value-added concept.
- It seeks to measure the Leanness of an Organization. This Metric can be used by any organization that has embarked on a lean journey. It gives a reality check on Lean implementation process and the extent of benefits or improvements derived by the organization on various aspects like quality, safety, delivery, cost, and morale.

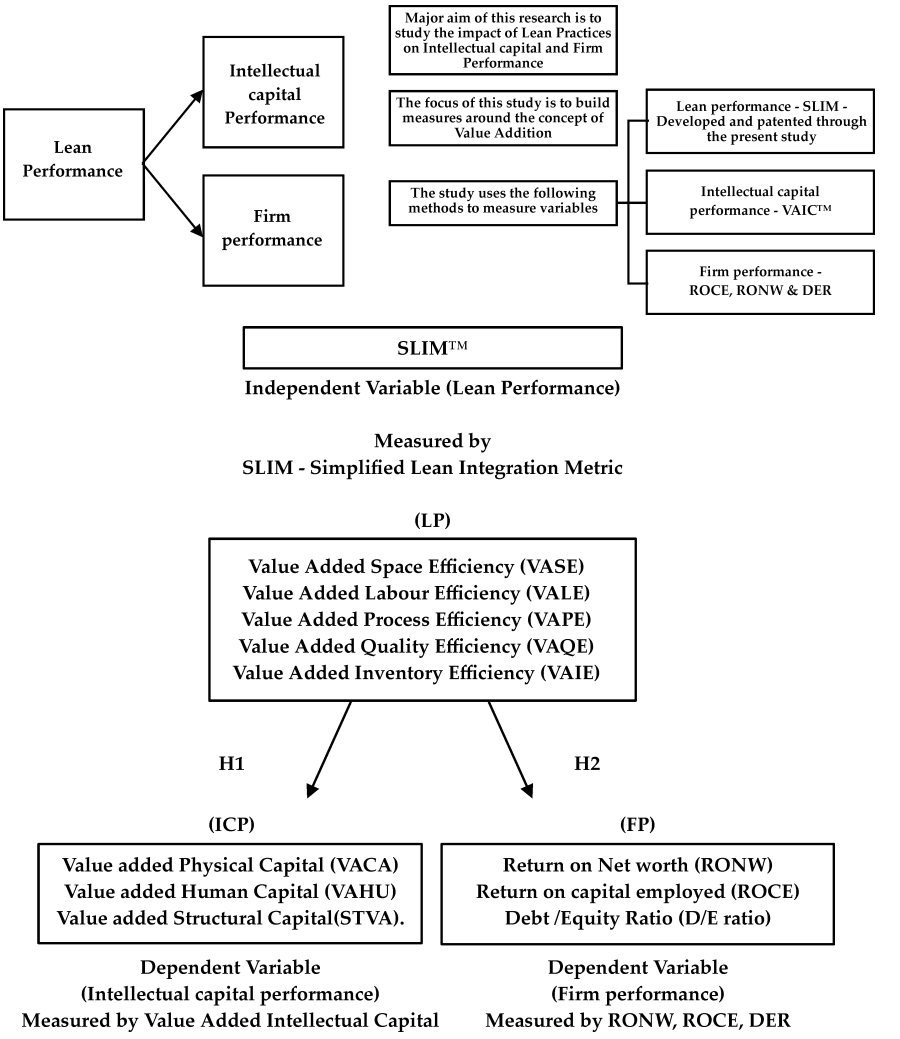
Advantages of invention

- Of the many tools which are lengthy & arduous, SLIM is easy to use and interpret.
- It captures complete improvement aligned with the concept of SLIM Manufacturing.
- SLIM helps in getting a quick measure of Leanness of a company & firm to firm comparison.
- Prove to be helpful in acquisitions.
- Helps in finding products/businesses which are effectively contributing towards the larger Mission of the company.
- Would be one of the best tools to encapsulate the Lean journey & provides a complete visual & year-on-year improvements in a spreadsheet.

Research Framework and Method

Major aim of this research is to study the impact of Lean Practices on Intellectual capital and Firm performance. The focus of this study is to build measures around the concept of Value Addition. Hence this study brings to light a new assessment method that has been developed to measure the value addition created by lean practices. The study also uses Value added Intellectual Capital method to measure the Intellectual capital value add. Keeping in mind the objectives, of the study the following research framework has been proposed.

Figure 1: Research Framework



Conceptual Model of Research Framework

Using Partial Least Square-Path Modelling

In this PLS–PM model Lean performance, Intellectual Capital performance and Firm Performance are treated as latent variables. Lean Performance which is captured by SLIM® Intellectual capital has three indicators VACA, VAHU and STVA and corporate performance has RONW, ROCE, DER indicators. Hence, we draw up a formative model for this study. Such kind of analysis cannot be given by a multiple regression model and hence PLS-PM has been adopted for this study. PLS is a suitable choice when compared with other SEM techniques in case where variables lack normal distribution. This method is highly recommended in case were formative than reflective models are studied. It is also useful in case of studies like this where theories are yet to be firmly defined. Moreover PLS-PM is less sensitive to misspecifications. Reasons for choosing PLS-PM over multiple regression are:

- There are multiple independent (X) and multiple dependent (Y)
- The data does not follow normal distribution
- Multiple regression cannot be employed when study involves a latent variable captured by manifest variables and there the model used for study is formative or reflective.

Hypothesis Development

As cited earlier many studies have been successful in empirically exploring and finding positive relationship between Lean performance and Firm/financial performance. There are yet another many studies which look at Intellectual Capital and Firm Performance. But there are only very few studies which have tried to find out the impact of Lean Performance on Intellectual capital on corporate performance and its predictive ability. This would help to statistically validate VAIC™ methodology. Pulic model describes the IC efficiency of a company can be described through VACA, VAHU and STVA It would also clarify the effectiveness and reliability of this tool. Hence it is hypothesized.

H1: There is a significant impact of Lean performance on Intellectual Capital Performance.

H2: There is a significant impact of Intellectual capital performance on Firm Performance

H3: Lean performance can predict Intellectual Capital performance can Firm performance.

The study uses multivariate analysis PLS-PM to test the hypothesis. As per this method impact of the variables of one over another is measured by R2 of the latent variable which shows the validity and strength of the model.H4 intends to look at the predictive ability of the model – which means the relevance of latent variable in explaining endogenous variable. H1 & H2 assesses the inner model, whereas H3 analyses the total model predictability.

Independent Variable

SLIM™ The Lean Value-added measurement model developed through this project is used to measure the independent variable - Lean performance.

The following table shows the Formula for calculation of **SLIM®**

Space Efficiency = Value addition/Space Employed
Labour Efficiency = Value addition/FTE labour hours
Process Efficiency = Value addition/Depreciation
Quality Efficiency = Value addition /Cost of Poor quality
Inventory Efficiency = Value addition/Average inventory
SLIM® = Space Efficiency + Labour Efficiency + Process Efficiency+ Quality Efficiency

Dependent Variables

(I) Intellectual Capital Performance

Dependent variables used in this study are derived from Pulic's method and VAIC would be determined using three comprehensive measures VACA, VAHU and STVA.

(i) Value added Capital Employed is denoted by VACA: It gives the value created by spending one unit of Physical capital.

(ii) Value added efficiency of Human Capital VAHU is an indicator of the efficiency of value added by human capital employed.

$$VA= I+ DP + Di + Ti + Mi + R+ WS \ldots. (1)$$

VA for firm is Value Addition

I is as the sum of interest expensed is depreciation expenses, D dividends Corporate taxes, M Equity of minority shareholders in net income of subsidiaries- Profits retained for the year, WS

- wages and salaries.

Capital employed (CA) =Book value of net assets of firm (2.2)

VACA=VA/CA.

Human Capital (HC) = Total Investment made in Employees which includes their salary, wages etc**.**

VAHU = VA/HC STEP IV

Structural Capital (SC) = VA-HU. SCVA =SC/VA

STEP V

VAIC™ = VACA+VAHU+STVA

(II) Firm Performance Measures

RoNW is as follows: Return on Net Worth =Annual Net worth of the company/ shareholders equity capital

ROCE: Return on capital employed is calculated by dividing net operating profit, or earnings before interest and taxes, by capital employed.

D/E ratio: The debt-equity ratio is a measure of the relative contribution of the creditors and shareholders or owners in the capital employed in business.

Looking at the broad research problem , the researcher believes that the primary step should be understanding the extent of lean implementation in the organization**.** As suggested by the Mentors of the Project Dr. Upinder Dhar and Dr. Jitendra Mishra, the study takes up a Case study approach.

Data Source

A case-based approach has been used for this study. Hence both large and small Manufacturing firms were approached. Few major companies were not willing to share the data terming them as sensitive, but two MSME's showed interest in the new

Lean Measurement tool developed in this study. The data was collected from these companies for 6 years and analysis was done.

Empirical Analysis and Discussion

Case Study 1: Eurocast Engineering

Eurocast engineering offers complete die-casting and machining solutions. They challenge the processes of tooling, die-casting, and machining with their expertise, passion, and hard work. With a built-up area of 45,000 square feet and more than a decade of experience, Eurocast is one of the best MSME's in Coimbatore to undertake this exploratory research in the areas of Lean Practises, Intellectual Value Creation, and Firm Performance. As an organisation Eurocast has tremendous engineering capabilities and fantastic growth possibilities and adoption of this tool would be of great use .The major objective of the research was to develop a tool to measure the leanness of the organisation. Simplified Lean Integration Metric developed through this research is used to measure the Leanness .Table 2 given below shows the calculation and interpretation.

Table 2: Lean Efficiency - Simplified Lean Integration Metric - SLIM ™ for Eurocast

Years		Space Efficiency	Labour Efficiency	Process Efficiency	Quality Efficiency	Inventory Efficiency	SLIM
2016	792.50	0.025	0.003	3.8	11.7	1.7	17.3
2017	973.26	0.030	0.003	4.2	11.9	1.6	17.8
2018	1902.22	0.059	0.007	7.9	17.9	2.5	28.3
2019	2917.30	0.073	0.009	13.0	33.0	3.3	49.4
2020	2298.37	0.057	0.006	9.2	17.1	2.1	28.5
2021	2461.82	0.062	0.007	9.8	11.1	2.0	23.0

The above data refers to the Leanness calculation captured by SLIM ™ for Eurocast. Data was collected from 2016 to 2021. Corner stone of Lean Philosophy is the efficient use of space, labour, process, quality, and inventory. The results reveal that from 2016 to 2019, the organization's Value creation ability by adopting Lean principles have improved gradually, and their right implementation can generate value by increasing efficiency from 17.3 to 49.4. We also see improvements in individual efficiencies such as space efficiency, labour efficiency, and so on.

Inventory efficiency did not improve significantly in 2017, but targeted efforts to improve individual efficiencies paid off and the consequences are visible. However, things took a U-turn with Covid lockdown in 2020,we witness an overall reduction in all efficiencies .It fell from

49.4 in 2019 to 28.5 in 2020, and the fallout from the lockdown was considerably worse the following year. Value creation fell to a low of 23.0. The years 2020 and 2021 have been difficult for all industries around the world. The tool is exact in informing us of which areas of performance have been badly impacted. The years 2020 and 2021 have been difficult for all industries around the world. The tool is exact in informing us of which areas of performance have been badly impacted. Despite improved space, labour, and process efficiency in 2021, quality and inventory efficiencies were extremely low.

Table 3: Intellectual Capital Efficiency - VAIC ™ - for *Eurocast*

Years	VACA	VAHU	STVA	VAIC
2016	5.66	11.83	0.83	18.33
2017	6.32	10.34	0.87	17.53
2018	11.13	9.25	0.88	21.26
2019	15.24	11.18	0.93	27.35
2020	10.91	8.04	0.94	19.90
2021	10.63	5.87	0.86	17.36

The table presented above displays Eurocast's Intellectual Capital efficiency for the years analysed. It indicates that the years 2019 and 2018 were the most productive, with Intellectual Capital efficiency scores of 21.26 and 17.53, respectively. The efficiency of Intellectual Capital is determined by Physical capital, Human capital, and Structural Capital efficiency. The study shows that Physical and Human Capital are the most significant contributors to Intellectual Capital. The scores for the years 2020 and 2021 are lower due to the impact of the pandemic.

By comparing the Lean scores and Intellectual Capital efficiency scores, we can conclude that the years 2019 and 2018 were the best performing years, with high scores in both categories. This suggests that higher Lean efficiency scores result in the creation of more Intellectual Capital value.

Hypothesis Verification

To examine the multivariate relationship among the observed variables that measure Lean performance, Intellectual capital, and corporate performance PLS path modelling method has been used**.** For the study purpose a Formative model has been developed. This model treats Lean performance, intellectual capital performance and corporate performance as latent variables measured by manifest variables (indicators). Lean performance is measured by **SLIM**™ , Intellectual capital performance is measured using three indicators VACA, VAHU and STVA. Firm performance is measured using ROCE, RONW, D/E ratio.

Figure 2: Shows the PLS – Model for Eurocast

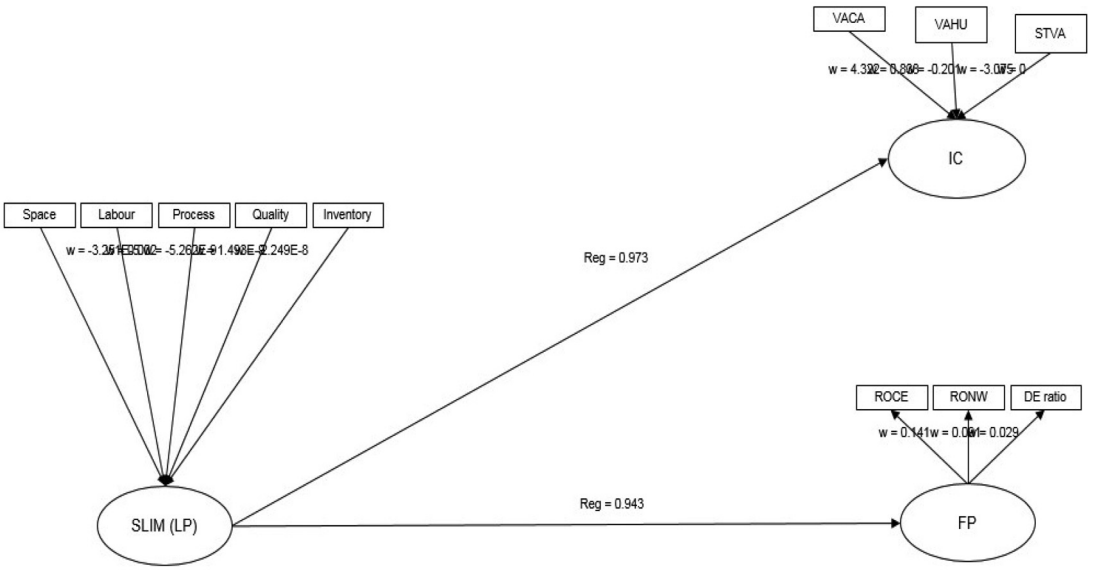


Table 4: Results of PLS – Path Modelling for Eurocast

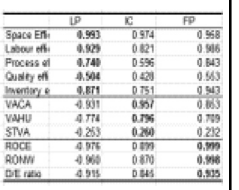
Measurement	Indicator	Result	Significance of the indicator	Interpretation
Goodness of fit	**GoF Relative index**	Relative GOFF index has a value of .882	GoF is a single measure for the overall prediction performance of the model	Value of relative GoF close to 0.9 or higher than are considered to speak in favor of the model
Cross loadings	Mono factorial cross loadings	 LP IC FP Space Effi 0.993 0.974 0.968 Labour effi 0.929 0.821 0.986 Process ef 0.740 0.596 0.843 Quality eff 0.504 0.428 0.563 Inventory e 0.871 0.751 0.943 VACA -0.931 0.957 0.863 VAHU -0.774 0.796 0.709 STVA -0.253 0.260 0.232 ROCE -0.976 0.899 0.999 RONW -0.960 0.870 0.998 D/E ratio -0.915 0.845 0.935	Checks whether the manifest variables are related to latent. variables or to some other latent Variable	The model is well. Specified i.e the manifest variables. measure the latent variables. conclusively.
R2 values of Endogenous LV's	Inner model specification	**.946**	R2 values of 0.6, 0.33, or 0.19 for endogenous latent variables in the inner path model are described as substantial, moderate, or weak by Chin (1998,p.32)	**In this case the values are above.6. Hence the model strength is substantial**
Path Coefficient	Regression weightof the path	**LP& IC.973** **LP & FP .943**		
t-statistic	**8.354**			The t –statistic of the regression weight is more than 1.96. This means that loading is significant at P<.05 level.
Model Predictive Value	R2 Adjusted	**.95**		

Table 4 shows the measurement aspects of PLS-PM model and its interpretations. A detailed interpretation is given below:

PLS-PM structure looks at interpreting each part of the model which includes the measurement model, structural model, and the overall model. All these are separately validated. The measurement model, structural model are explained through the communality index and Redundancy index. A global criterion of goodness of fit proposed by Tenenhaus et al. (2004) is used for validating GOF. GoF index is obtained as the geometric mean of average communality index and average R2 values. Even though GoF models are mostly used in case of reflective models, for practical purpose GoF can be interpreted for formative models also as it provides a measure of overall fit V.Esposito Vinzi et al. (2010). This index is bound to be between 0 and 1 As a rule of thumb value of relative GoF close to 0.9 or greater than that clearly speaks in favour of the model.

In our case the value is.882 and speaks very highly in favour of the model. Thus, it confirms our H1 and H2 hypothesis that Lean performance impacts intellectual capital and Firm performance. Here higher value addition happening due to Lean practices create latent knowledge in the organisation which enhances the Intellectual capital. Greater value addition also leads to higher utilisation of capital and better processes and products which creates higher revenue thereby creating higher returns on Assets and equity and better utilisation of debt.

Mono factorial manifest variables: This table allows us to check whether a given manifest variable is mono factorial or not. This means whether the manifest variable is mostly related with the latent variable. Ideally the model is said t be well specified if it appears that the manifest variables are more related to its latent variables than other variables.

R2 values of endogenous Latent Variable: Valid outer model permits the evaluation of inner model. The criteria used for evaluation is the coefficient of determination R2 of the endogenous latent variable. Chin (1998) describes R2 values of 0.67, 0.33, and 0.19 in PLS path models as substantial, moderate, and weak, respectively. Predictive relevance is measured using the mean redundancies the table given below.

Table 5: Model assessment & blind folding redundancies

Latent Variable Redundancies	Type	R2	Adjusted R2	Mean
LP	Exogenous			
IC	Endogenous	0.946	0.946	0.427
FP	Endogenous	0.946	0.946	0.904
Mean		0.946		0.666

From the Table 5, the mean redundancy for endogenous variables are.66 which explains the medium predictive relevance of the model. *Predictive Ability:* Blind folding procedure is done to obtain the cross validated redundancy which fits the PLS path modelling approach like 'hand and glove' (WOLD 1982). In analogy to f2 the relative impact of predictive relevance can be assessed by means of redundancies (q2) values. values of 0.02, 0.15, and 0.35 reveal a small, medium or large predictive relevance of latent variable which in turn explain the endogenous latent variable Here the mean redundancies is .66 which means that there is a large predictive relevance for the model.

Overall, it can be concluded that the model for measuring Lean performance leading to Intellectual capital and Firm performance is highly relevant and adds to the theoretical contribution & literature through this case as evidence. Eurocast has made great improvements with the implementation of Lean practices and is in the right path with continuous improvement in processes.

Case Study 2: Doiter

The Doiter Group of Companies specialize in manufacturing and exporting Aluminium, Cast Iron, and Nodular Iron components. The group is staffed with experienced professionals who provide customers with the full value of supply chain, manufacturing, sourcing, and logistics services. The manufacturing facilities are in the Industrial City of Coimbatore, Tamil Nadu, India. DOITER is committed to producing the highest quality products by regularly conducting consistent reviews of structured objectives. Additionally, the group continuously improves product quality in a supportive and friendly work environment.

Doiter is on the path of adopting Lean Practices in the organisation. They allowed this study to understand how the company is faring in terms of the Lean Efficiency indices and the extend of value addition created by the organisation . Over and above this the entire model was run to understand the impact of Lean on Intellectual capital & Firm performance.

Table 6: Lean Efficiency - Simplified Lean Integration Metric - SLIM ™ for Doiter

YEAR		Space Efficiency	Labour Productivity	Process Productivity	Quality Performance	Inventory Performance	SLIM
2016	1126.16	0.38	0.005	7.81	44.09	37.07	89.35
2017	1205.06	0.04	0.005	9.21	51.10	38.85	99.21
2018	1062.49	0.04	0.004	7.52	35.07	28.98	71.61
2019	1382.92	0.05	0.005	7.76	41.35	9.95	59.11
2020	1240.22	0.04	0.005	6.78	39.57	4.69	51.08
2021	1329.90	0.04	0.004	8.08	46.74	7.24	62.11

The Leanness Metric for Doiter reveals a consistent decline in the SLIM metric value over the study's duration. The most substantial value creation occurred in 2017, reaching a score of 99.21, followed by 2016 at 89.35. However, in subsequent years, there was a continuous decrease in the score. The data in the table unmistakably highlights inventory management as the bottleneck. Enhancing the implementation of Just-In-Time (JIT) practices and employing Visual Management tools could be effective solutions. Despite the notably high-Quality Efficiency, the primary focus should shift towards optimizing inventory management. By prioritizing these improvements, the adoption of Lean principles can be impactful.

Table 7: Intellectual Capital Efficiency - VAIC ™ - for DOITER

Years	VACA	VAHU	STVA	VAIC™
2016	8.04	44.09	0.98	53.11
2017	7.83	51.10	0.98	59.91
2018	6.22	35.07	0.97	42.25
2019	7.22	41.35	0.98	49.55
2020	5.89	39.57	0.97	46.44
2021	5.74	46.74	0.98	53.46

The trend observed in the Intellectual Capital value creation mirrors that of the SLIM™ metric. The peak value generation occurred in 2017 at 59.91, followed by 2016 and 202153.11 & 53.46 respectively. Notably, in the context of Doiter, the contribution of Physical Capital and Structural Capital to the creation of Intellectual Capital value is limited. Instead, the pivotal role is attributed to Human Capital, which is evident from the value augmentation attributed to it. In fact, over 85% of the Intellectual Capital value is attributed to Human Capital. This phenomenon underscores the presence of a productive and harmonious work environment within Doiter.

Figure 3: PLS – Model for Doiter

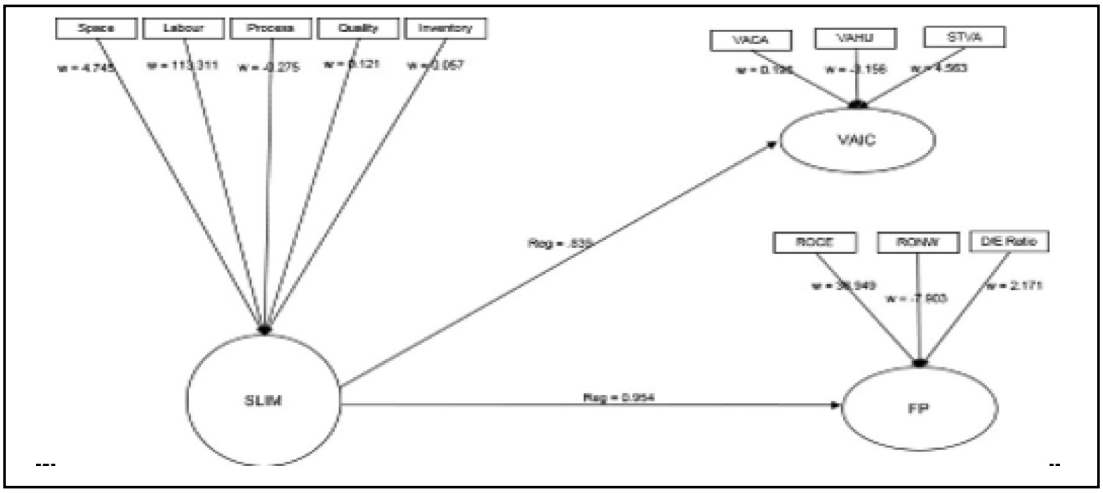
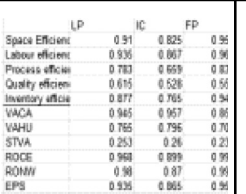


Table 8: Results of PLS – Path Modelling for Eurocast

Measurement	Indicator	Result	Significance of the indicator	Interpretation
Goodness of fit	**GoF Relative index**	Relative GOFF index has a value of .789	GoF is a single measure. for the overall prediction performance of the model	Value of relative GoF close to 0.9 or higher than are considered to speak in favor of themodel
Cross loadings	Mono factorial cross loadings		Checks whether the manifest variables are. related to latent. variables or to some other latent variable	The model is well specified i.e the manifest variables. measure the latent variables conclusively.

R2 values of Endogenous LV's	Inner model specification.	**.856**	R2 values of 0.6, 0.33, or 0.19 for endogenouslatent variables in the inner path model are described as substantial, moderate, or weak by Chin (1998,p.32)	**In this case the values are above.6. Hence the model strength is substantial**
Path Coefficient	Regression weight of the path	**LP& IC.839** **LP & FP .954**		
t-statistic	**6.24**			The t –statistic of the regression weight is more than 1.96. This means that loading issignificant at P<.05level.
Model Predictive Value	R2 Adjusted	**.783**		

The PLS-PM structure involves a comprehensive analysis of different components of the model, including the measurement model, structural model, and the overall model. To validate the model's goodness of fit, a global criterion recommended by Tenenhaus et al. (2004) is employed, which ranges between 0 and 1. Generally, a relative GoF value close to or exceeding 0.9 indicates strong model performance. In our context, the value stands at 0.782, significantly endorsing the model's validity. This outcome reinforces our hypotheses H1 and H2, affirming that Lean performance has a positive impact on intellectual capital and firm performance. Furthermore, the mean redundancies score is 0.865, signifying a high level of predictive relevance within the model. The outer model's validity allows for an evaluation of the inner model. The assessment criterion used is the coefficient of determination (R2) of the endogenous latent variable, yielding a value of 0.786. This value underscores the model's robustness and validity.

To summarize, the model's efficacy in measuring the relationship between Lean performance, intellectual capital, and firm performance is compelling. The model's

relevance contributes substantively to theoretical understanding and the existing literature, bolstered by the evidence presented in this case.

Conclusion

This study was conducted to assess the impact of Lean performance on Intellectual capital and Firm performance and took the case study route by identifying companies in Coimbatore who have adopted/not adopted Lean Practices. Two MSMEs namely Eurocast and Doiter came forward to participate in the study and gave their consent to give data. The period of study was from2016-2021. This study developed a New Lean measurement Methodology which captures the value addition through Lean practices. This Lean Measurement tool is named SLIM™ acronym for Simplified Lean Integration Metric. The developer of this tool, the researcher herself, has filed Patent application and Trademark and is pending Grant.

The case study on Eurocast and Doiter reveals that there is a Good Fitness of Index for the model, .882 and .789 respectively. The latent variable is thoroughly captured by manifest variables in both the case studies. The model has high predictive relevance. Eurocast which has implemented Lean a few years back and Doiter is embarking on a Lean Journey. This Model would be very useful to them to track continuous improvement. This study is a way forward for lean practitioners and non-practitioners since it makes a comprehensive measurement of lean metrices in a lucid style. The lean measurement metrics of SLIM can be used by lean practitioners to measure the effectiveness of their lean implementation efforts and Kaizens. For non-practitioners, this measurement identifies areas for improvements for which lean implementation can be done.

The hallmark of this measurement is that it is pragmatic and easily implementable for all businesses which have a value addition in their processes.

References

Balakrishnan, R., Linsmeier, T. J., & Venkatachalam, M. (1996). Financial benefits from JIT adoption: Effects of customer concentration and cost structure. *Accounting Review, 71*(2), 183.

Bontis, N. (1996). There's a price on your head: managing intellectual capital strategically. *Business Quarterly,* 40-7, Summer.

Boyd, D. T., Kronk, L., & Skinner, R. (2002). The effects of just-in-time systems on financial accounting metrics. *Industrial Management & Data Systems, 102*(3), 153-164.

Burton, T. T. (2016). *Global KATA: Success through the Lean Business System Reference Model*. New York: McGraw-Hill Education

Callen, J. L., Fader, C., & Krinsky, I. (2000). Just-in-time: A cross-sectional plant analysis. International *Journal of Production Economics, 63*(3), 277-301.

Chatzkel, J. L. (2002). *Intellectual Capital*. Oxford: Capstone Pub

Easton, G. S. & Jarrell, S. L. (1998). The effects of total quality management on corporate performance. *Journal of Business, 71*(Issue 2), 253.

Edvinsson, L. (1997). Developing intellectual capital at Skandia. *Long Range Planning, 30(*3), 266-373.

Edvinsson, L. and Malone, M. (1997). *Intellectual Capital: Realizing your Company's True Value by Finding its Hidden Brainpower.* Harper Collins, New York, NY

Fullerton, R. R. & McWatters, C. S. (2001). The production performance benefits from JIT implementation. *Journal of Operations Management, 19*(1), 81.

Georgescu (2011). Lean Thinking and Transferring Lean Management- The Best Defence against an Economic Recession? *European Journal of Interdisciplinary Studies,3(1), 2011*

Gorecki, P., & Pautsch, P. (2018). *Lean Management*. Mu˜nchen: Hanser

Gulhak, Gelvo,ivinich. (2020). The intellectual capital and Lean process correlation, 61st International Scientific Conference on Economic and Social Development – Corporate social responsibility in the context of the development of entrepreneurship and small businesses. *Varazdin,* October 22-23.

Hendricks, K. B. & Singhal, V. R. (1996). Quality awards and the market value of the firm: Empirical. *Management Science, 42*(3), 415.

Huson, M. & Nanda, D. (1995). The impact of just-in-time manufacturing on firm performance in the US. *Journal of Operations Management, 12*(3/4), 297.

Itami.H (1987). *Mobilizing Invisible Assets.* Harvard University Press, Cambridge

MacDuffie, J. P. (1995). Human resource bundles and manufacturing performance: Organizational logic and flexible. *Industrial & Labor Relations Review, 48*(2),197.

Prusak, L. (1998). *Working Knowledge: How organizations Manage What They Know.* Harvard Business School Press, Cambridge, MA

Pulic, A. (2000). An accounting tool for IC management. Available at: *www.measuring-ip.at/Papers/ham99txt.htm*

Stewart, T.A. (1997). *Intellectual Capital: The Wealth of New Organizations.* Nicholas Brealey Publishing, London

Thomsen, E. (2014). *Lean Management: Arbeitsbuch*. Sternenfels: Verl. Wissenschaft et Praxis

Womack, J. and Jones, D. (1996). *Lean Thinking*. Simon & Schuster, New York. Womack, J., & Jones, D. T. (2003). *Lean Thinking*. New York: Free Press

Exploring Well-Being through Bibliometric and Systematic Analysis

Aditi Badoni, Santosh Rangnekar***

Abstract

Happiness and life satisfaction play key components in subjective well-being. As such, both societal and individual well-being are affected. The process involved in researching life satisfaction and happiness is always undergoing dynamic development; thus, the use of VOSviewer in carrying out the bibliometric analysis was applicable. After the survey of the 170 journal articles published in the Scopus database, the key areas of research included dynamics in rural and urban well-being, psychological and consumer well-being, economic effects, tourism with sustainable use, and mental health and happiness. More recent observations have captured the rising focus on global matters like the COVID-19 outbreak, and the effects of economic conditions, in addition to the key issue of mental health. By taking into account both individual and group factors in determining life satisfaction today, it contributes to our understanding of happiness.

Keywords: Life Satisfaction, Happiness, Subjective Well-Being, VOSviewer.

Introduction

Having a high level of satisfaction with life is a fundamental component of well-being. In fact, from utilitarian moral philosophy perspective, life satisfaction is often described as an end goal of life (Ehrhardt et al, 2000). From this perspective, life satisfaction is an attitude and therefore is considered, "a summary evaluation of objects along a dimension from positive to negative" (Petty et al., 1997). Life satisfaction, therefore, is a summary of an individual's positive and negative evaluations of different aspects of life, or different life domains, and is, therefore, an attitudinal object (Heller et al, 2004). On this basis, Frisch et al. (1992) suggests life satisfaction or quality of life, is an individual's subjective appraisal of how well their important needs and wants have been met.

* *Research Scholar.* ORCID: 0009-0008-8009-7477. *E-mail: aditi_b@ms.iitr.ac.in*

** *Professor.* ORCID: 0000-0001-5806-1197. *E-mail: santosh.rangnekar@ms.iitr.ac.in*

Department of Management Studies, Indian Institute of Technology, Roorkee, Uttarakhand, India-247667.

In both personal life and work life, satisfaction with life is often the overriding motivation for most decisions. Therefore, aspects like premium employment, high wages, sound mental and physical well-being, and healthy social ties often correlate with heightened life satisfaction (Raza et al, 2020). Subjective well-being is the main category under which life satisfaction falls (Ferreira et al., 2020). It is often linked to recreation, personal fulfilment, positive social relationships, physical and mental health, and quality of life (Qu & Zhao, 2012). Numerous positive outcomes, such as enhanced happiness, mental wellness, creativity, and productivity, have also been linked to life satisfaction (Pasupuleti et al., 2009).

Employee life satisfaction is now a significant component of job happiness and has become a goal for job applicants (Kashyap et al., 2016). The time has ended for most organizations when talented employees could be lured exclusively by top company name(s) or famous or prominent leaders who made their career there. The current employees put primary importance on how organizations strive to offer employee well-being and life satisfaction. This is a major component of happiness and is critical for talent management and retention. The field of organizational psychology has begun to focus on life satisfaction (Erdogan et al., 2012; Unanue et al., 2017) because it is positively correlated with job performance (Jones, 2006), negatively correlated with turnover intentions (Rode et al., 2007), and is a foundational aspect of happiness (Veenhoven, 2017). This is why, in contemporary organizations, SWL is important for the happiness of the employees and the organization (Hagmaier et al., 2018).

Objectives of the Study

The purpose of this article is to review the relevant literature, establish the primary components of the framework for life satisfaction and happiness, pinpoint central areas in the field, and highlight key developments in the field. In attempting to achieve these objectives, the author hopes to make a contribution to the literature on life satisfaction by setting out to accomplish the following:

1. Examine the life satisfaction and happiness scholarship and map out divergent lines of research in different settings.

2. To examine life satisfaction and happiness research longitudinally to identify and explain important shifts and patterns.

3. To identify gaps in the literature and provide practical recommendations to advance and shape future research.

Scope of the Review

This is the first ever analysis of the different aspects of life satisfaction and pleasure, and the most common features related to this fundamental principle. The subjective framework of happiness, with life satisfaction as a critical component of subjective well-being, has been used by researchers to study happiness from an empirical perspective (Erdogan et al, 2012). The all-encompassing nature of happiness speaks to the importance of life satisfaction/fulfilment. Researchers have studied life satisfaction at the micro and macro levels in relation to a plethora of positive and negative psychological, social, interpersonal, and intra-personal attributes across different groups (Enkvist et al, 2012). Within the organisational context, the happiness of life has been associated with career adaptability, career choices, organisational/job related satisfaction, and self-efficacy (Jaensch et al, 2015). Life satisfaction and happiness have also been studied in relation to the different experiences that shape an individual's life.

Method

Approach

This research will make use of the dual approach by applying both the bibliometric and the interpretative technique to meet the aims and objectives of the research to establish the research groups and to establish the current trends. Scholarly research usingbibliometrics is subjective to the shape and composition of the structure of the amount of the literature. To ensure depth and coverage of the determined research groups to ensure comprehensively rooted knowledge of the philosophical roots embedded within the groups, the research applied the research aimed by carrying out aninterpretativestudy. According to Sprong et al. (2021), this is how the constraints embedded within thebibliometricsanalysis are dealt with.

Data Collection

The bibliometric method of analysis retrieved information from Scopus, which is the largest database of peer-reviewed literature abstracts and citations (Ballew, 2009). To be more relevant, the information retrieved was restricted to the title, abstract, and keyword of the publications. To limit the scope of the investigation and thus improve its impact and predictability, fields for the topic of discussion were restricted to psychology, social sciences, business, accounting and management, and arts and humanities. Keywords were selected based on the central idea and its related terms. However, during the first screening, some terms were found to be common in studies unrelated to the target area, which led us to remove non-specific terms. This is the data collection query used:

TITLE-ABS-KEY ("life satisfaction" AND "happiness") AND (LIMIT-TO (SUBJAREA, "BUSI")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE , "English")) AND (LIMIT-TO (SRCTYPE , "j")) AND (LIMIT-TO (PUBSTAGE , "final")).

The first search query produced 223 results from Scopus which went through an additional screening phase of just the abstract to further optimize the dataset for relevancy and specificity for the purpose of bibliometric mapping. This process led to the removal of 43 additional articles.

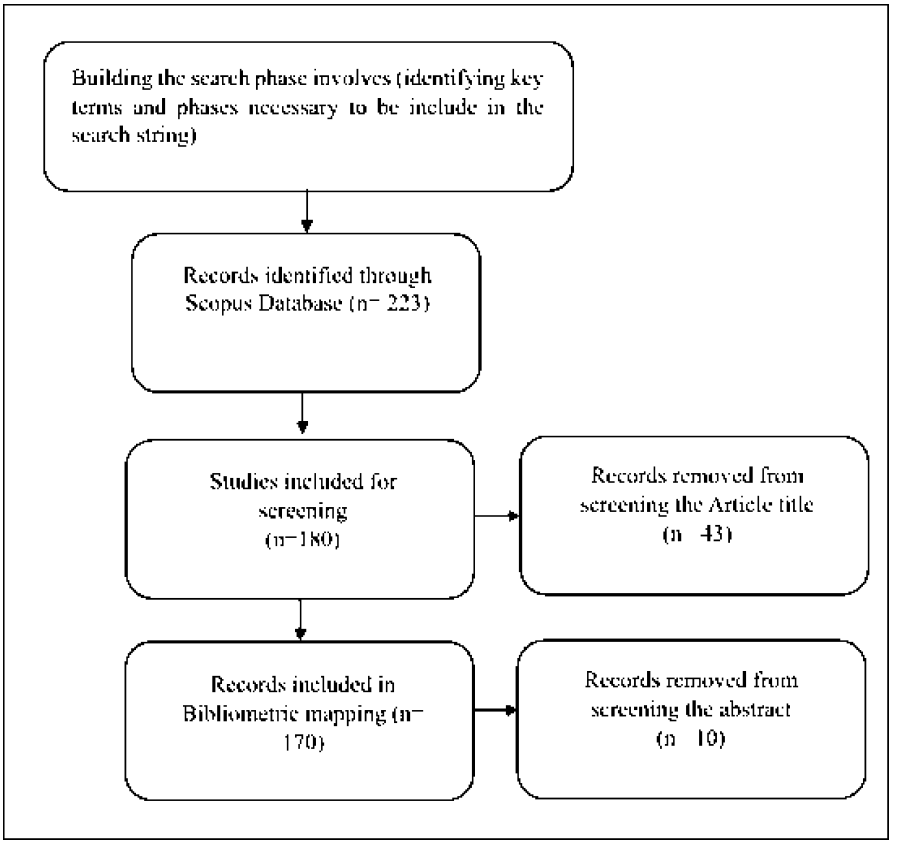


Figure 1. Article Selection Process

Bibliometric Mapping

The bibliometric coupling technique was used to map the literature while also identifying research clusters (van Eck & Waltman, 2010; Waltman et al., 2010). VOS

viewer software (Jan van Eck & Waltman, 2020) aided the study by using the Visualisation of Similarity (VOS) technique to generate distance-based maps in which nodes' closeness shows their relatedness. A higher resolution parameter results in more clusters; however, a minimum cluster size assures that each cluster contains a specific number of articles.

Interpretative Analysis

The two-dimensional map that results from the process of bibliometric mapping illustrates a number of study clusters. A comprehensive analysis for the assessment of the study clusters has been achieved by carrying out a comprehensive study of the titles, abstracts, as well as keywords of the chosen papers. In addition, based on the outcome of the study on the process of the bibliography chart, as well as the combination of the authors' keywords, a set of key articles for the study clusters has been identified for the insertion of labels on eleven study clusters.

Table 1. Characterization of Clusters

Cluster No.	Cluster Colour	Cluster Name	Keywords	Cluster Description
Cluster 1	Red	"Urban and Rural Well-Being Dynamics"	life satisfaction, migration, rural, social capital, subjective wellbeing (swb), urban, urbanism, urbanization	This grouping is centering on the contrast between urban and rural, dealing with the effect that social capital, urbanization, and migration have upon perceived satisfaction with life.
Cluster 2	Green	"Psychological and Consumer Well-Being"	consumer well-being, happiness index, motivation, positive psychology, poverty, psychological capital, sustainable consumption, wellbeing	The emphasis of this work is the nexus between the concern for consumer well-being and the well-being of the mind, including positive psychology. It focuses on the part that psychological capital and motivation plays in the well-being of consumers.
Cluster 3	Blue	"Economic Influences on Well-Being"	economic growth, hedonic adaptation, income, job satisfaction, recession, social comparison, subjective wellbeing	The role of economic variables in the explanation of well-being in the context of hedonic adaptation and social tensions is what this cluster of studies is exploring, whether from higher income, job satisfaction, and economic growth.

Cluster 4	Yellow	"Mental Health and Psychological Well-Being"	anxiety, depression, mental health, psychological well-being, underemployment, well-being, worship	In relation to mental health, this dimension identifies the interlinkages of well-being with psychological constructs such as anxiety, depression, and under-employment, as well as the significance of support systems for mental health and worship/ spirituality in general well-being.
Cluster 5	Purple	"Inequality and Social Comparisons"	comparison income, inequality, materialism, reference groups, relative income, welfare, world values survey	This cluster focuses on how beliefs about inequality, materialism, and comparing earnings influence happiness, examining the role of relative earnings and social comparison on both happiness and values.
Cluster 6	Cyan	"Entrepre-neurship and Satisfaction"	bhps, entrepreneurship, quantile regressions, satisfaction, self-employment, subjective well-being	Focusing on entrepreneurship, self-employment, and personal satisfaction, this cluster investigates the effects of entrepreneurship and job satisfaction on subjective well-being, with the help of quantile regressions, which are used to estimate economic outcomes.
Cluster 7	Orange	"Affective and Social Well-Being"	affect, emotions, immigration, leisure, quality of life, urban paradox	The significance of this cluster includes the emphasis placed on the emotional dimension and the importance of affect and emotions as a component of well-being, in addition to the challenges associated with the theme of immigration and urbanism, including the paradox of the quality of life and happiness in the urban context.
Cluster 8	Brown	"Leisure and Gender Perspectives on Happiness"	adaptation, gender, gender gap, happiness, leisure attitude	This type of clustering is concerned with investigating gender and leisure in relation to happiness, specifically gender differences in happiness and adaptational theories of leisure and happiness socialization.
Cluster 9	Pink	"Tourism and Community Resilience"	community resilience, residents' attitudes, tourism, tourism impact, tourist arrivals	Emphasis on Tourism: This cluster, focusing on the aspect of tourism, relates the concept of resilience to the impact of tourism on the attitudes and well-being of the residents.

Cluster 10	Light Red	"Health, Education, and Utility in Well-Being"	health, higher education, relationship, students, utility	The relevance of health, higher education, and relationships emerging through clustering helps explain how these factors impact well-being, especially in college students, and how the availability of utilities and services affects overall life satisfaction.
Cluster 11	Light Green	"Pandemic and Sustainability Influences"	covid-19, expectations, subjective happiness, sustainability	Analyzing the study of the effects of the COVID-19 pandemic, this cluster centers on the influence of subjective expectations and sustainable processes on feelings of happiness amidst global crises.

Source: Reviewed studies

Results

Life Satisfaction and Happiness as a Growing Research Area

The last ten years have been very positive in the studies on the academic side of happiness and life satisfaction. The studies on life satisfaction and happiness are now multiple in number and easily accessible. The surge in the number of life satisfaction studies can now be easily conducted and measured using systematic bibliometric studies and network visualizations. Initially, life satisfaction studies were mostly focused on the economy, such as studies on income and job satisfaction. Now, the studies have perceived life satisfaction and happiness in multiple disciplines, including psychology, sociology, and the environment. The usage of the terms 'positive psychology, 'subjective well-being', and 'mental health' in earlier studies focused mostly on the economy. The recent studies are now devoted to the multiple other dimensions of well-being other than the economy.

In order to promote and enhance happiness and life satisfaction, psychological and emotional variables should be given equal priority alongside other social economic variables. The large number of life satisfaction studies is the major proof of the large amount of disciplines involved in the research of life satisfaction. Studies on the effects of economic growth and hedonic adaptation are the proof of the large amount of disciplines involved in the research of life satisfaction.

Bibliographic coupling

Cluster 1: Urban and Rural Well-Being Dynamics

This cluster explores the diverging well-being experiences in urban and rural settings, considering how migration, social capital, and urbanization affect life satisfaction. This cluster brings out two environments-urban and rural-that shape subjective well-being, focusing on challenges and opportunities related to urbanization and the quality of rural living conditions.

Cluster 2: Psychological and Consumer Well-Being

Centering on the linkage of psychological elements and consumer behavior, this cluster focuses on identifying ways by which factors like psychological health, happiness indicators, and positive psychology can impact individual well-being. The need for psychological capital, motivation, and sustainable consumption patterns can enormously help to create individual feelings of personal well-being. Consumer well-being is given great importance within happiness research.

Cluster 3: Economic Influences on Well-Being

This category evaluates economic factors that are related to happiness, including employment, economic growth, and salary. The effects of hedonic adaptation, and the impact of recession and interindividual differences regarding the subject's sensation of being pleasantly happy, also fall under this category. This category shows the close association between economic and individual levels of salaries and the experience of life satisfaction.

Cluster 4: Mental Health and Psychological Well-Being

Emphasis on the psychological aspect of happiness, this set considers the relationship between anxiety, depression, and psychological well-being and other factors surrounding psychological well-being and life satisfaction. Underemployment and psychological well-being as issues affecting life satisfaction due to the importance of psychological health care with regards to having a happier life.

Cluster 5: Inequality and Social Comparisons

This cluster describes the role of both the concepts of inequality and comparisons regarding subjective well-being. This cluster describes the use of the concepts of reference group, materialism, and relative income to examine the happiness level of the individual and the role of socio-economic inequalities and individual beliefs about

these inequalities to affect the level of life satisfaction. This cluster indicates the role of the welfare regime and values concerning the well-being of the set of income recipients.

Cluster 6: Entrepreneurship and Satisfaction

This group, concentrating around the relationship between entrepreneurship and subjective well-being, examines the relationship between self-employment and entrepreneurial activity and life satisfaction. Analyzing the relationship between job satisfaction and autonomy and the stimulation of subjective well-being, the implications of entrepreneurial activities with respect to subjective well-being are explored.

Cluster 7: Affective and Social Well-Being

The current cluster investigates the non-cognitive personal, subjective facet of well-being, revolving around the concepts of affect, emotions, and leisure. This cluster recognises that variations in wellbeing are significantly captured by such aspects as one's experiences and emotional and social relationships.

Cluster 8: Leisure and Gender Perspectives on Happiness

This cluster explores the implications of gender and leisure in relation to happiness by exploring how gender disparities, concepts of leisure, and disparities between genders have affected overall life satisfaction. This cluster will also explore how adaptable one can be as an individual in terms of leisure pursuits in order to lead a balanced life concerning happiness and gender concepts.

Cluster 9: Tourism and Community Resilience

This grouping is focused on the impact that tourism has on the community well-being of citizens. This group is centered on the idea that the presence of tourism and the arrival of tourists have positive impacts on the attitudes of the community members. This is in relation to the advantages and disadvantages that arise from having tourism.

Cluster 10: Health, Education, and Utility in Well-Being

Focusing on the nexus between health and education and happiness, this categorized question explores the nexus between healthcare facilities, colleges of higher education, and social facilities within the context of happiness. This issue is focused on how other variables like the college experience, healthcare facilities, and education facilities relate to life satisfaction.

Cluster 11: Pandemic and Sustainability Influences

This cluster explores the impact of the COVID-19 pandemic on subjective happiness, considering the increased relevance of sustainability for the study of happiness. It explains how global health crises, shifting social expectations, and the growing emphasis on environmental sustainability shape individual perceptions of well-being and life satisfaction within a crisis adaptation and long-term resilience perspective.

Co-occurrence Author's Keywords cluster

Co-Occurrence: The keyword clustering done by the author portrays the relationship between the key words in the research of happiness and life satisfaction. Key words such as happiness, subjective well-being or SWB, and life satisfaction are the central theme in the fields of research. Other words such as sustainability, urbanisation, and social capital show the increasing emphasis on the environmental and societal influences responsible for the determinations of an individual's well-being in life. Additionally, words such as health, mental health, and economic growth show the importance of the mental and economic influences. The co-occurrence of the aforementioned terms reflects the complexity of well-being and demonstrates how societal, environmental, and individual factors are interlinked in research on happiness.

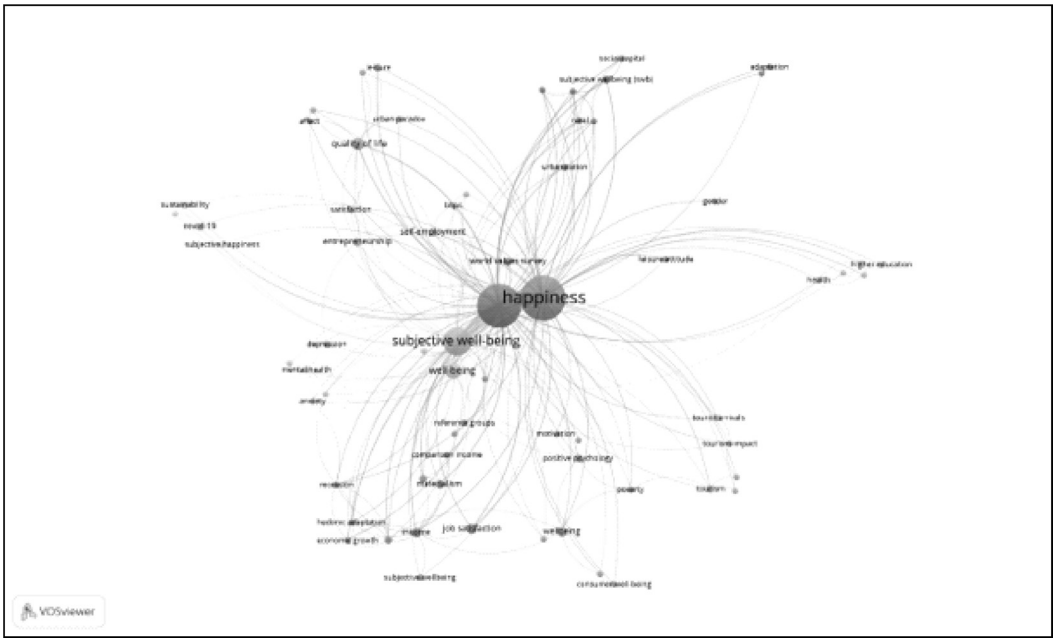


Figure 5. Co-occurrence Author's Keywords cluster

Linkages Across Clusters

Clusters within the research network of happiness and life satisfaction show that the construct of well-being is multi-faceted. Indeed, economic factors-income, job satisfaction, and economic growth-relate best to psychological well-being, entailing a network in which materialism and social comparisons are central. Most of the mental health factors, most notably anxiety and depression, are the best correlates of subjective well-being (SWB), showing the core of happiness is in emotional and psychological factors. Social and environmental factors also form some links, especially the urban-rural divide and the increased social capital and the social dimension of sustainability. The inter-linkages of social, e.g., community resilience and quality of life, and environmental, e.g., tourism and happiness, illustrate how these very factors impact individual happiness, inclusive of direct relationships of community well-being with the number of tourists and the economic benefits of tourism.

In addition, the areas of health and higher education connect with happiness, explaining how subjective well-being is affected by access to health and educational services. The emerging fields of socio-cultural adaptation and gender add flesh and blood to the research, illustrating how life satisfaction is dependent on social structure and the place of women within it. Overall, the linkages across these clusters highlight the multifaceted nature of happiness research, where economic, psychological, social, and environmental factors are intertwined. Understanding these connections is essential for developing holistic approaches to improving well-being at both individual and societal levels.

Bibliographic coupling

Co-occurrence Author's Keywords cluster

Concepts such as happiness, life satisfaction, and subjective well-being (SWB) show strong interconnections, highlighting their core relevance as far as the study of well-being is considered. The interconnections between the topic happiness and the social aspects are getting accepted increasingly, as per concepts such as social capital, urbanization, and economic development. Also, the concept-based terminology on poverty, job satisfaction, and psychological well-being highlight the rising importance of psychological and socio-economic aspects as far as the concept of life satisfaction gets defined.

The core topics studied as far as this concept defines include tourism, sustainability, and COVID-19, highlighting the rising importance as far as shifting from local ideas

to global ideas, based on the influence of external factors on happiness get considered. The fact that all these keywords exist together indicates the interdisciplinary aspect as far as the study on well-being gets addressed, as all aspects, whether economy, psychology, or environment, remain core as far as understanding the idea of happiness and life satisfaction gets addressed.

Author Contributions to Research Over Time

Over the years, the contributions to research on life satisfaction and happiness by the authors have shown immense progress, with an ever-increasing number of approaches being used for this area of research. The research has shifted gradually from primarily economic aspects to an ever-increasing range of research approaches being derived from the psychological, sociological, and environment domain of research. In order to illustrate the progressively changing nature of collaboration in research being executed by professionals belonging to psychological, economic, and social science streams, the concept of visualization for the keyword co-occurrence would be helpful. There has been an indication of the progressively increasing interrelation between the different aspects of economic, psychological, and social facets of well-being, which indicates an intense focus on the multi-dimensional aspect of happiness.

Developments over Time

There have been major developments in research studies related to life satisfaction and happiness as a subject matter over the past few decades, especially related to methodological advancements. Looking through the time span of 2014 to 2022, there is a rising trend of research related to subjective well-being (SWB) and its correlations to psychological-social elements, specifically keywords that have appeared during that time span including "positive psychology," "mental health," and "social capital." This points to an integrated perspective of happiness that extends beyond economic frameworks, not to mention that global events, including the recent COVID-19 pandemic, have widened the area of study to examine various external elements that impact happiness as well as life satisfaction, reflecting a major paradigm change to comprehend well-being.

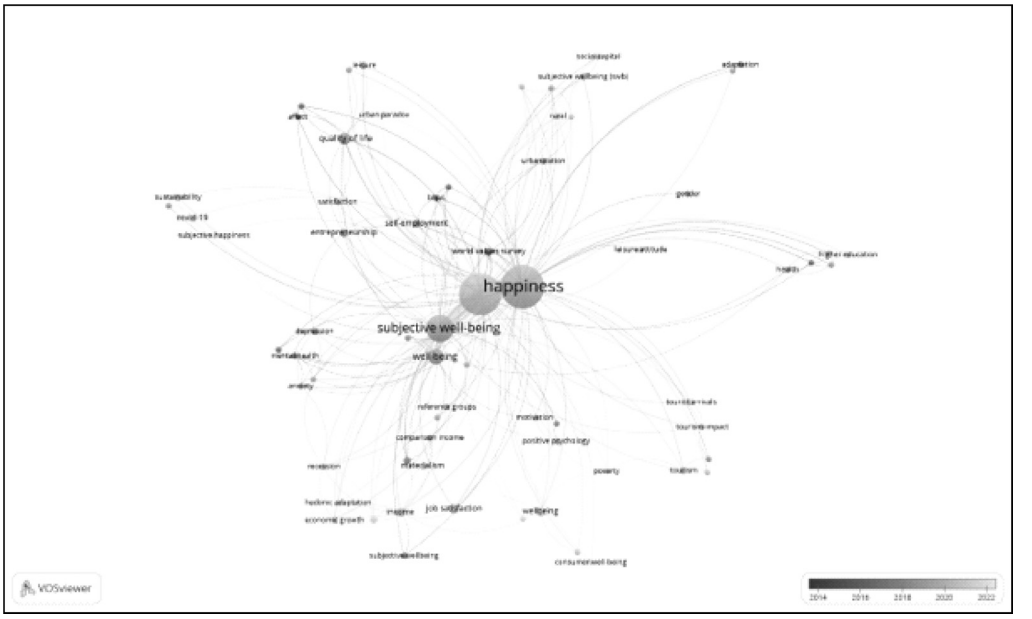


Figure 6. Network Visualization of Research Themes Related to Life Satisfaction

There is a great expansion in the present trend of the integration of research that had been previously distinguished by being separate and distinct, with new relationships being developed in the field of economic, social, and psychological variables. The research groups are now broader in their conception of the research subject, with the new relationships including key words such as "sustainability," "health," "urbanization," and "tourism" to the research subject of happiness. This also recognizes that the research in the subject had previously been dominated by research approaches being isolated and aiming to involve many variables that could possibly influence and affect the research subject. The present relationships are now broader to incorporate both the socio-environmental variables such as quality of life and the impact of urbanization in the research subjects, and the other research subjects in psychology such as mental health and motivation.

The Movement Towards Interlinked Areas

Contemporary happiness and life satisfaction studies are becoming increasingly marked by interconnected fields that echo the multifaceted nature of happiness and well-being. It is common now to see keywords like "income," "job satisfaction," or "materialism" alongside other keywords like "social capital," "tourism," and "community resilience." However, this trend of moving towards interconnected fields

marks a new understanding that happiness is no longer strictly impacted by personal variables but is deeply entrenched in social, economic, and environmental milieus around it. The current state of happiness studies finds itself at an intersection of fields that contribute to healthcare, education, economics, and environment sciences; this shows that happiness studies have reached the point of embracing a broader definition of happiness in the future by reaching towards integrated models of happiness studies.

Discussion

Future Research Directions

The future directions for studying life satisfaction and happiness will be impinged by the evolving global scenario. The field, Urban and Rural Well-Being, would see an accentuation of smart cities, the effects of urbanization, migration, and inequality on the supply of resources for rural areas, respectively. The field of Psychological and Consumer Well-Being would see an attention of the nodal points of Behavioral Economics, Psychology, and Online Consumption, specifically highlighting the contribution of the consumer for well-being through their acts. Economic Influences on Well-Being would study the effects of economic inequality, socio-economic resilience, and global psychological toll of global disasters within economic crises, respectively. Mental Health and Psychological Well-Being would focus their accent on the development of mental health care, individual resilience, as well as the conceptual integration of mental and physical well-being, specifically within the context of the pandemic situation, respectively.

The field of Inequality and Social Comparisons would take note of the global, technological, as well as the social impacts on the perception of inequality within well-being, respectively. Entrepreneurship and Satisfaction would study the development of well-being fueled by innovations via entrepreneurship, specifically within marginalized communities, respectively. Affective and Social Well-Being will examine emotional intelligence, social relationships, as well as the role played by intercultural contacts on the subjective experience of happiness in increasingly diverse communities. The theme Leisure and Gender Perspectives on Happiness investigates the gender perspectives on leisure and their implications on life satisfaction.

Tourism and Community Resilience views sustainable tourism and their role in (local) communities, ensuring that there exists equilibrium between development on the one hand and sustainability and well-being on the other. Health, Education, and Utility in Well-being continues with the examination on healthcare, education, and social

facilities contributory to enhanced well-being through health preventive and mental health initiatives. Finally, Pandemic and Sustainability Influences analyzes the impact of recovery from a pandemic with regard to the role played by sustainability as contributory elementary happiness components on happiness. In this case, these themes will therefore continue developing towards an interdisciplinary understanding of well-being informed by social, technological, and global transformations.

Possible challenges

There exist some challenges which exist in the present research work regarding the topic of life satisfaction and happiness. They include the challenges of defining and measuring the subjective state of wellbeing, the complexity of the variables which influence wellbeing such as economic conditions, mental status, and values of society, and the multidisciplinary nature of the research work regarding wellbeing. There might exist the challenge of combining the findings of different fields of study in a manner which helps attain the solutions of real-life problems.

Overall direction

Future studies on life satisfaction and happiness are likely to embrace the holistic approach, drawing on the wisdom of economics, psychology, the field of health, and the realm of sociology. There would be an emphasis on the relationship between the individual experience of life satisfaction or happiness, on the one hand, and the global forces of globalization, urbanization, and sustainability, on the other. Research on the effect of global issues, such as the widening wealth gap and climate shifts on life satisfaction would also receive emphasis. The role of digital technology in well-being would be an area for the future.

Emerging topics

Critical current themes and fields in the area of happiness research include digital consumption and the effects of the internet and social networking sites upon happiness, issues related to inequality and economic justice, the doubly disadvantaged relationship between mental and physical health, and the themes of sustainable development and the collective happiness. These themes are likely to be ever-deepening, especially the notion of happiness dimension.

Limitations of the Study

The study has the following limitations: Firstly, it depends on the availability of tools designed to conduct bibliometric and systematic analysis, and there may be studies

beyond the scope of the tools available today. There may be differences in the methodologies and approaches to defining happiness and life satisfaction in studies which can create variations in the results obtained. The papers being analyzed are also limited to the scope of data provided, and there are emerging areas which may not have attracted adequate research attention to be considered in the study in question. There are regional and cultural variations in the perception of living well which are not considered in global studies."

Conclusion

The ever-increasing number of studies connected with life satisfaction and happiness highlights the growing significance that has been accorded to it. With time, new studies in the field would explore the relationship that exists between individual well-being and society. The new themes that are emerging, including inequality in the economy, mental illness, and climate change, would ensure that the improvement of well-being would remain a critical element in new studies. The interdisciplinary theme that the subject raises today would generate new information about how the improvement of happiness and life satisfaction would be projected in different societies.

References

Ballew, B. S. (2009). Elsevier's Scopus® database. *Journal of Electronic Resources in Medical Libraries*, 6(3), 245–252. https://doi.org/10.1080/15424060903167252

Enkvist, Å., Ekström, H., & Elmståhl, S. (2012). What factors affect life satisfaction (LS) among the oldest-old? *Archives of Gerontology and Geriatrics*, 54(1), 140–145. https://doi.org/10.1016/j.archger.2011.03.013

Erdogan, B., Bauer, T. N., Truxillo, D. M., & Mansfield, L. R. (2012). Whistle while you work: A review of the life satisfaction literature. *Journal of Management*, 38(4), 1038–1083.

Ferreira, P., Gabriel, C., Faria, S., Rodrigues, P., & Pereira, M. S. (2020). What if employees brought their life to work? The relation of life satisfaction and work engagement. *Sustainability (Switzerland)*, 12(7). https://doi.org/10.3390/su12072743

Frisch, M. B., Cornell, J., Villanueva, M., & Retzlaff, P. J. (1992). Clinical Validation of the Quality of Life Inventory: A Measure of Life Satisfaction for Use in Treatment Planning and Outcome Assessment. *Psychological Assessment*, 4(1).

Hagmaier, T., Abele, A. E., & Goebel, K. (2018). How do career satisfaction and life satisfaction associate? *Journal of Managerial Psychology*, 33(2), 142–160.

Heller, D., Ilies, R., & Watson, D. (2004). The role of person versus situation in life satisfaction: A critical examination. *Psychological Bulletin*, 130(4), 574–600. https://doi.org/10.1037/0033-2909.130.4.574

Jaensch, V. K., Hirschi, A., & Freund, P. A. (2015). Persistent career indecision over time: Links with personality, barriers, self-efficacy, and life satisfaction. *Journal of Vocational Behavior*, 91, 122–133. https://doi.org/10.1016/j.jvb.2015.09.010

Jan van Eck, N., & Waltman, L. (2020). *VOSviewer Manual*.

Jones, M. D. (2006). Which is a better predictor of job performance: job satisfaction or life satisfaction? *Journal of Behavioural and Applied Management*, 8(1), 20–42.

Kashyap, S., Joseph, S., & Deshmukh, G. K. (2016). Employee Well–Being, Life Satisfaction and the need for Work–Life balance. *Journal of Ravishankar University, Part–A*, 22, 11–23.

Kim, M., & Kim, Y. (2012). Factors affecting life satisfaction among the oldest-old: Evidence from South Korea. *Journal of Aging & Social Policy*, 24(3), 207–219.

Pasupuleti, S., Allen, R. I., Lambert, E. G., & Cluse-Tolar, T. (2009). The impact of work stressors on the life satisfaction of social service workers: A preliminary study. *Administration in Social Work*, 33(3), 319–339. https://doi.org/10.1080/03643100902988141

Petty, R. E., Wegener, D. T., & Fabrigar, L. R. (1997). ATTITUDES AND ATTITUDE CHANGE. In ATTITUDES *Annu. Rev. Psychol* (Vol. 48). www.annualreviews.org

Qu, H., & Zhao, X. R. (2012). Employees' work-family conflict moderating life and job satisfaction. *Journal of Business Research*, 65(1), 22–28. https://doi.org/10.1016/j.jbusres.2011.07.010

Raza, S. A., Qazi, W., Umer, B., & Khan, K. A. (2020). Influence of social networking sites on life satisfaction among university students: a mediating role of social benefit and social overload. *Health Education*, 120(2), 141–164. https://doi.org/10.1108/HE-07-2019-0034

Rode, J. C., Rehg, M. T., Near, J. P., & Underhill, J. R. (2007). The effect of work/family conflict on intention to quit: the mediating roles of job and life satisfaction. *Applied Research in Quality of Life*, 2(2), 65–82.

Sprong, N., Driessen, P. H., Hillebrand, B., & Molner, S. (2021). Market innovation: A literature review and new research directions. *Journal of Business Research*, 123, 450–462. https://doi.org/10.1016/j.jbusres.2020.09.057

Unanue, W., Gómez, M. E., Cortez, D., Oyanedel, J. C., & Mendiburo–Seguel, A. (2017). Revisiting the link between job satisfaction and life satisfaction: the role of basic psychological needs. *Frontiers in Psychology*, 17. https://doi.org/10.3389/fpsyg.2017.00680

van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Veenhoven, R. (2017). Measures of Happiness: Which to Choose? In Brule, G., & Waltman, L., van Eck, N. J., & Noyons, E. C. M. (2010). A unified approach to mapping and clustering of bibliometric networks. *Journal of Informetrics*, 4(4), 629–635. https://doi.org/10.1016/j.joi.2010.07.002

Intention to Adopt Green Management Practices by Indian Leather and Footwear Manufacturing SMEs

*Utkal Khandelwal**

Abstract

This article highlights the role of the green initiative and the adoption of green technology, and it identifies sustainable green practices between companies and managers of small and medium-sized enterprises (SMEs) in India's leather and footwear manufacturing sector. The use of sustainable green practices in the study of real-life difficulties affecting organisations requires a thorough understanding of these two components. Thus, to formulate hypotheses, this study examines green initiative factors such as energy management, water conservation, waste management, and green purchasing. This survey is intended for small and medium-sized enterprises (SMEs) in the leather and footwear manufacturing sector, namely owners/managers, managers, managing directors, and department heads.411 responses were collected through the physical interface and online surveys. For data analysis, we have used SMART PLS 4 software. From the analysis, we can conclude that there is a positive relationship between firm performance and energy management, water conservation, waste management, and green purchasing and also there is a moderating effect of green technology adoption on energy management, waste management, and green purchasing except for water conversation.

Keywords: Energy Management, Water Conservation, Waste Management, Green Purchasing, Firm Performance.

Introduction

In the light of the current economic crisis, business has become very complex. On one hand, the organizations have to meet the exceeding competitive consumer's demands, and, on the other hand, they must now add the new perspective of environment friendly business practices as a social demand of civil society and government. Presently, environmental consciousness is not only becoming popular in everyday life but also certifying sound business practices (Plambeck and Denend, 2011). To this

* *Professor, GLA University, Mathura, India. E-mail: utkal.khandelwal@gla.ac.in*

This work is based on the ARIF project funded by the Association of Indian Management Schools (AIMS), Hyderabad.

effect, the company interacted with policymakers, NGOs, academicians, and suppliers to understand current best practices and outline steps that it would take to achieve its sustainability goal. As part of its strategy, Walmart worked with its suppliers, eliminated middlemen, and licensed environmental innovation. Walmart's example is one of the many cases of firms greening its supply chain. Other examples include Patagonia, a U.S. based clothing company which has collaborated with its suppliers and altered the mix of materials for manufacture of a particular brand of jacket - Rain Shell Jacket.

Starbucks Corporation, the specialty coffee retailer collaborated with Conservation International, which is an eco-friendly non-profit organization, to foster sustenance of Coffee and Farmer Equity Practices. Increasing environmental concerns have catalyzed the development of green management practices. Entrepreneurs and companies are recognizing this emerging trend and are increasingly adopting sustainable practices to demonstrate their environmental responsibility (Chen et al., 2016; Mehta 2013) and this now emerging as a sustainable model of business also. This phenomenon of adopting green management practices are term as enviropreneurial management or Ecopreneurs. Ecopreneurs is a term coined by Kirkwood and Walton (2010) explained those entrepreneurs who start for-profit businesses with strong underlying green values and who sell green products or services. This is an emerging field where research is still in its infancy.

Green production and sustainability have a growth potential; these approaches have produced a wide scope of opportunities for entrepreneurs at the intersection of environment, social and economic objectives, known as green or eco entrepreneurs (Nacu and Avasilcai, 2014; Gibbs and O'Neill, 2014). With India's swift transition towards a market-oriented economy and its accession to the World Trade Organization, environmental issues have gained unprecedented attention from both authorities and the public. Globally, businesses have recognized the imperative to protect the natural environment, increasingly incorporating environmental marketing into their strategies (Minor and Morgan, 2011). This global green shift necessitates similar responses from Indian entrepreneurs. Diverse alternative approaches can be adopted to achieve responsible and sustainable outcomes, with environmental issues and sustainability serving as significant competitive advantages.

The sustainable development paradigm posits that societies must manage three types of capital—economic, social, and natural—each of which may be non-substitutable and whose depletion could be irreversible. Daily (1991) emphasizes that natural capital

cannot necessarily be replaced by economic capital. While some natural resources might be replaceable, essential ecosystem services, such as the protective function of the ozone layer or the climate-stabilizing role of the Amazon rainforest, are irreplaceable. Indeed, natural, social, and economic capital are often complementary, underscoring the need for integrated management to ensure sustainable development

Thus, the primary objective of this study is to examine the adoption of green initiatives and their impact on firm performance in the Indian leather and footwear manufacturing SMEs. The study aims to understand how specific environmental management practices - energy management, water conservation, waste management, and green purchasing affect firm performance. Additionally, the study investigates the moderating role of green technology adoption in enhancing the relationship between these green initiatives and firm performance.

Review of Literature

SMEs are mushrooming across a wide range of sectors across the country including agriculture, manufacturing, or service industries (Agan et al., 2013). The SME sector is a key factor in rural India urbanization, according to estimates; most Indians live in villages and in tier 1/tier 2 cities (Singh et al., 2009). India's prioritization of SMEs has significantly contributed to their growth and the development of the national economy, with government initiatives also enabling them to compete in international markets (Subrahmanya, 2007; Todd et al., 2007). However, priority sector financing SMEs are implemented by the government to facilitate access to finance by enabling domestic and foreign banks to lend 40% of their total bank credit to SMEs (Gaur et al., 2011). Before the Micro, Small, and Medium Enterprises Development (MSMED) Act, there was no official definition of SMEs in India.

The MSMED Act 2006 classifies MSME into three categories based on their investment in plant and machinery. Companies with an investment of less than 25 Lakh Rupees are classified as microenterprises, between 25 Lakh Rupees and 5 Crore Rupees as small enterprises, and between 5 Crore Rupees and 10 Crore Rupees as medium-sized enterprises (Govt. of India, msme.gov.in; Lahiri, 2012). The SME sector has been a major driver of economic growth in India, comprising an estimated 42.50 million entities, both registered and unregistered, and accounting for 95% of the country's manufacturing facilities. SMEs employ approximately 106 million people, representing 40% of the workforce (Lahiri, 2012). They contribute 6.11% to the manufacturing GDP and 24.63% to the service sector GDP, constituting 16% of bank lending, 45% of total production, and 40% of exports. With fixed assets valued at INR 1.471.912.94 crore,

the sector has maintained a growth rate exceeding 10% (Sources: msme.gov.in/KPMG/ CRISIL/CII).

According to an Ernst and Young (EY) report, SMEs are projected to account for 22% of the national GDP by 2020, underscoring the sector's dynamic growth and continual influx of new enterprises. Since the beginning of the financial crisis, it has been difficult for the world economy to repair itself and maintain a healthy rate of growth. Global growth last year is projected to be 3.40% and 3.80% this year (Roberts et al., 2019) However, India's GDP continues to rise rapidly surpassing the major economies of the world. The International Monetary Fund (IMF) expects India to increase GDP by 7% in the fiscal year (Sources: msme.gov.in/CII.) The future looks very bright for Indian SMEs, which are far more confident than their Asian counterparts in China, Japan, and other competitive and large economies (Yadav et al., 2019). American Express's 2017 Global SME Pulse states that 71% of SME respondents are positive about their domestic economy, 62% about China, and 54% about Japan.

National Steel and Shipbuilding Company (NASSCO) aims to enable SMEs to reach the next level and provide end-to-end support for information sharing best practice in business, networking, policy advocacy, and brand building. The Indian business sector continues to increase demand for SMEs (Manian and Ashwin, 2014). Facebook and Google have launched digital training programs and hubs that focus on improving digital SME skills in India (Lema et al., 2012). Most banks have introduced simple loan and loan programs to help SMEs benefit from finance without any complexity (Dhillon et al., 2012). In addition, a variety of technology firms have launched customized products, applications, and services for SMEs (Maruthi and Rashmi, 2015).

While the SME sector contributes to a large proportion of India's GDP, traditional inefficient business methods and low green technology levels have discouraged smaller businesses from realizing their potential (OECD Report, 2019). Google's research with the consulting firm KPMG found that 68% of the 51 million SMEs are not connected to the internet (KPMG Report, 2017). SMEs face many challenges such as lack of workforce experience, low infrastructure and services, low productivity in manufacturing, lack of innovation, lack of technical and industrial skills, and adoption of green practices. These prevent Indian SMEs from realizing their full potential, meeting their foreign peers' expectations, and becoming self-supporting (Thanki and Thakkar, 2018). However, the SME sector should find such obstacles as untapped opportunities. Such challenges offer a wide range of opportunities to strengthen the base of SMEs.

Conceptual Framework and Hypotheses Development

With the increasing of environmental consciousness by customer, government and other marketing forces, manufacturing units are now inclined towards environmental management, environmental disclosure, and green performance (Li et al., 2018). Previous researches (Aziz et al., 2018; Sellitto, 2018, El Baz and Laguir, 2017) embrace this green inclination of manufacturing units and term this action as green initiative. Green initiative can be explained as the set of actions adopted by a firm to minimize the negative environmental effects associated with the entire life cycle of its products (Chen et al., 2018; Nicholls and Kang, 2012).

Literature covers various dimensions of business on the green initiative implementation such as Sharma and Vredenburg (1998) specifies changing business strategies, whereas Porter and Van der Linde (1995) focused on product design and Pujari (2006) focused on production processes for adopting green initiative. In this context, the implementation of green initiatives normally involves firms to find and use supporting strategies and increase resources (Handfield et al., 2005). Green initiatives can be broadly classified into energy management (Cato et al., 2008; Kirkwood and Walton, 2010), water conservation (Kenny et al. 2009; Mofokeng, 2013), waste management (Patrício et al., 2015; Udawatta et al., 2021) and green purchasing (Jazairy and Haartman, 2020). Thus, for the long term benefits in terms of financial savings and reduction in cost SMEs should go for green initiatives. Therefore, this study measures energy management, water conservation, waste management and green purchasing as green initiatives variables and develop hypotheses accordingly.

SMEs in India are not serious in energy management because of lack of knowledge, expertise and resources however it is an important constituent of production cost. Dependence on non renewable energy in the SMEs are not a sustainable way of doing business and it increases the cost as well as the prices of electricity and oil rises very rapidly. Thus SMEs for their sustainability must have to manage their energy consumption and upgrading their facilities or equipment to improve energy efficiency (Choong et al., 2012). This lead to our first hypothesis:

H_1: There is a positive relationship between energy management and firm performance.

Apart of energy management, SMEs also require water as part of their input processes. Water conservation is another important variable for sustainable business strategy. Yacob et al. (2019) observed that many SMEs do not pay much attention to water conservation in their operations. It is also been observed by past researcher that most

of the SMEs does not pay attention towards water conservation due to the heavy financial obligation that may be essential (Bay and Rasmussen, 2011). Water conservation in SMEs required extra investment but it increase the efficiency and profitability in the long run (Mofokeng, 2013). Therefore, water conservation has been considered as a significant area of green initiatives in SMEs and should be implemented, managed and controlled by a systematic method to achieve green sustainability. Thus our next hypothesis is framed as:

H_2: There is a positive relationship between water conservation and firm performance.

Waste management represents another crucial aspect of green initiatives, driven by unsustainable consumption in operational processes (Tchobanoglous, 2009). Historically, many SMEs have disposed of waste products directly into the environment without prior treatment (Winfrey and Tilley, 2016), leading to increased pollution and adverse environmental impacts. Weerasiri and Zhengang (2012) highlighted that the importance of waste management in SMEs is significantly under recognized, emphasizing the need to prioritize and enhance waste management practices within these enterprises. Thus our next hypothesis is framed as:

H_3: There is a positive relationship between waste management and firm performance.

With the shifting consumer behaviour towards green products and government compliances Firms are inclined to be more transparent in addressing and managing environmental and social issues. Green purchasing management has been defined as the implementation of "an environmentally-conscious purchasing practice that reduces sources of waste and promotes recycling and reclamation of purchased materials without adversely affecting performance requirements of such materials" (Min and Galle, 2001, p. 1223). SMEs are not generally focuses towards green purchasing but it is important to measure those contingencies that either boost or mitigate the impact green purchasing management has on firm performance. Thus our next hypothesis

H_4: There is positive relationship between green purchasing and firm performance.

Green technology adoption involves implementing novel or improved processes, techniques, and systems to mitigate the environmental impact of business activities and human actions (Yacob et al., 2019). This adoption process can be seen as an innovation process that incorporates new technical and administrative knowledge, which can also be embraced by SMEs. Thus, this research is measuring the moderating role of green technology adoption between green initiative and green technology adoption.

H_5: Green technology adoption moderates the relationship between green initiatives (waste management, water conservation and energy management) and the firm performance.

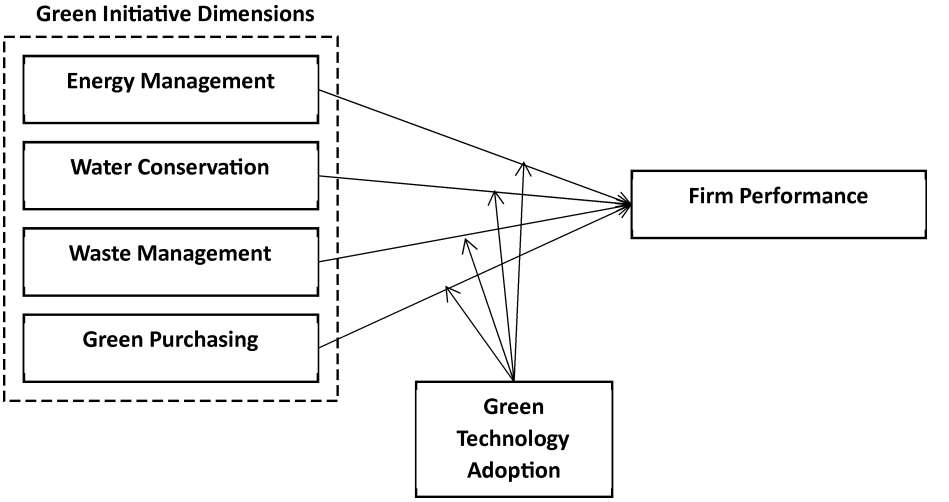


Figure 1: Conceptual Framework

Research Method

To accomplish the objective of the study, all the constructs were adopted from the relevant literature. A pilot study involving 30 SMEs assessed the instrument's validity and reliability, yielding Cronbach alpha values ranging from 0.722 to 0.836. Based on the pilot study's findings and expert suggestions, the final survey questionnaire comprised of opinion based questionnaire of 6 constructs: four independent variables (Energy management, water conservation, waste management and green purchasing), one independent variable (firm performance) and a moderating variable (green technology adoption). For measuring this cross-sectional research, researchers used to structure questionnaire comprised 31 questions on six different construct. Each variable is evaluated through seven-point Likert Scale where 1 belongs to strongly disagree and 7 belong to strongly agree.

Energy management was measured with a six-item scale adopted from Kannan and Boie (2003), Water conservation was measured with a six-item scale adopted from Kenny et al. (2009), Waste management was measured with a six-item scale adopted from Tchobanoglous (2009) and green purchasing with 5 items scale adopted from Min and Galle (1997). Green technology played as a moderator and this construct was measured with a six-item scale and adopted from Yacob et al. (2018) and lastly,

our dependent variable firm performance comprised of a three-item scale adopted from Foo et al., (2019). Response categories of these question is on seven point Likert scale where 1 means strongly disagree, 2 means disagee, 3 means somewhat disagree, 4 means neither agree nor disagree and 5 means somewhat agree, 6 means agree and 7 means strongly agree. Details of the items of each constructs are explained in Table 1. A pilot survey was conducted to correct errors and to ensure that the questions were easily understood.

Table 1: Details of Scale Items

#	Constructs	Labels	Items	Source
1	Energy management	EM1	My enterprise ensures activities minimize the amount of energy used	Kannan and Boie (2003)
2		EM2	My enterprise ensures activities minimize the emissions to air	
3		EM3	My enterprise set measurable targets for reducing energy usage	
4		EM4	My enterprise applies effective strategies in improving energy management	
5		EM5	My enterprise uses high-energy efficient lighting	
6		EM6	My enterprise regularly monitors trends in energy consumption	
7	Water Conservation	WM1	My enterprise promotes the re-use of water in production process	Kenny et al. (2009)
8		WM2	My enterprise set measurable targets in reducing water usage	
9		WM3	My enterprise applies effective strategies in improving water conservation	
10		WM4	My enterprise installs water-efficient devices to control water usage	
11		WM5	My enterprise regularly monitors the trends in water usage	
12		WM6	My enterprise ensures its activities minimize the amount of effluent to water	

13	Waste Management	WM1	My enterprise ensures in minimizing the amount of waste from its activities promotes the recycling of waste by using the most	Tchobanoglous (2009)
14		WM2	My enterprise environmentally safe procedures available	
15		WM3	My enterprise set measurable targets for waste reduction	
16		WM4	My enterprise ensures the disposal of hazardous waste appropriately by complying with all existing legislation standards	
17		WM5	My enterprise monitors and records on-site and off-site waste disposal	
18		WM6	My enterprise has waste storage facilities that meet environmental requirements	
19	Green Purchasing	GP1	My enterprise encourages our existing suppliers to become more sustainable.	Min and Galle, 1997
20		GP2	My enterprise actively consider switching to more sustainable suppliers	
21		GP3	My enterprise set environmental criteria that suppliers must meet	
22		GP4	Sustainability plays an important role in our search for suppliers	
23		GP5	My enterprise try, where possible, to replace less sustainable suppliers with more sustainable suppliers	
24	Green Technology	GT1	Adoption of green initiative opened new market opportunities for my enterprise.	Yacob et al. (2018)
25		GT2	Adoption of green initiative improved corporate brand image for my enterprise.	
26		GT3	Adoption of green initiative decrease in cost of energy consumption	
27		GT4	Adoption of green initiative has increased the product quality	
28		GT5	Adoption of green initiative has improved return on investment (ROI).	

29	Firm Performance	FP1	My enterprise is adopting innovative and efficient technological alternatives that potentially lead to sustainable development.	Firm Performance
30		FP2	My enterprise is shifting towards non renewable sources of energy from the conventional source of energy	
31		FP3	My enterprise is in the process of adopting green technology such as green tag, green building etc.	

This research is a perceptual study to measure the adoption of green initiatives by Indian leather and footwear industry. Thus, the sample for this study is Indian leather and footwear manufacturing SMEs. The selection of these firms is purely based upon convenience and judgmental sampling method. The target respondents for the survey include owners/managers, managers, managing directors and department heads in the leather and footwear manufacturing SMEs. In the absence of a definitive sampling frame for researching SMEs adopting green manufacturing, judgmental sampling was employed for data collection. This method entails researchers utilizing their expertise to select participants deemed most pertinent to the study's objectives (Hair et al., 2017).

Criteria for selection could include They are responsible and dealing with various functions where eco-friendly initiatives can be implemented. Judgmental sampling facilitates targeted recruitment of participants likely to offer insightful perspectives on the research topic, enhancing the study's validity and relevance. We visited various industries in Agra, Faridabad, and Kanpur region as these are major manufacturing regions of Leather and footwear. Data were collected through physical interface and online survey to the sample respondent. Follow ups were also taken through e-mails. A total of 411 responses were utilized for data analysis, collected within the designated period. This meets the sample size determination criteria of Krejcie and Morgan (1970), which states that a sample size of 384 is sufficient for a population of 1,000,000.

The data analysis process unfolds in four distinct stages. Firstly, demographic data undergoes examination utilizing descriptive statistics, predominantly expressed in percentages, to provide a comprehensive overview of the sample characteristics. Subsequently, the reliability and validity of the measurement scale are assessed. Reliability is evaluated through internal consistency using Cronbach's Alpha, ensuring that the items in the scale consistently measure the intended construct. Validity is scrutinized employing discriminant validity via the Fornell-Larcker criterion and convergent validity through the examination of Heterotrait-Monotrait ratios, affirming

the scale's ability to measure the intended constructs accurately. In the third stage, the direct effects within the model are scrutinized, illuminating the relationships between variables under investigation. All the above mentioned analysis except demographic analysis was estimated using the Partial Least square structural equation modeling (PLS-SEM).

Data Analysis and Interpretation

Measurement Model Assessment

Examining the indicator loadings is a crucial initial step in model assessment. It is recommended to consider loadings above 0.708, as these indicate that the construct explains more than 50 percent of the indicator's variance, ensuring reliable item performance. All the loadings in Table 1 are above 0.708, except for two items (WC6 & WM6). It is important to crosscheck items with loadings of 0.50–0.70 with their composite reliability (CR) and average variance extracted (AVE). If CR and AVE meet the required criteria, these items can be kept. Next, it is important to assess the internal consistency reliability. In general, higher values suggest a higher level of reliability. Table 2 displays the reliability values ranging from 0.70-0.90, indicating that all the values are deemed satisfactory to good.

When evaluating the convergent validity of a construct, it is customary to calculate the average variance extracted (AVE) for all items related to that construct. To calculate the AVE, it is important to square the loading of each indicator on a construct and then determine the average value. A satisfactory AVE is 0.50 or higher, indicating that the construct explains at least 50 percent of the variability in its items. Our analysis reveals that all constructs have an AVE value above 0.50, as demonstrated in Table 2 and Figure 2.

Table2: Reliability and Convergent Validity

	Outer Loadings	VIF Value	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Energy Management						
EM1	0.854	2.691				
EM2	0.876	3.773				
EM3	0.889	4.260	0.924	0.933	0.940	0.725
EM4	0.895	3.921				
EM5	0.826	2.862				
EM6	0.760	2.127				
Water Conservation						
WC1	0.908	3.556				
WC2	0.920	2.238				
WC3	0.923	4.456	0.915	0.943	0.934	0.70
WC4	0.854	2.701				
WC5	0.820	2.477				
WC6	0.571	1.520				
Waste Management						
WM1	0.727	2.972				
WM2	0.604	2.631				
WM3	0.847	3.310	0.841	0.886	0.881	0.560
WM4	0.890	4.516				
WM5	0.821	2.264				
WM6	0.530	1.263				
Green Purchasing						
GP1	0.913	4.761				
GP2	0.937	3.650				
GP3	0.923	3.821	0.935	0.936	0.953	0.836
GP4	0.884	2.964				

Green Technology Adoption						
GTA1	0.820	2.573	0.921	0.925	0.938	0.717
GTA2	0.867	3.457				
GTA3	0.849	3.062				
GTA4	0.886	3.543				
GTA5	0.890	3.720				
GTA6	0.760	1.819				
Firm Performance						
FP1	0.908	2.500	0.868	0.872	0.919	0.791
FP2	0.881	2.125				
FP3	0.880	2.283				

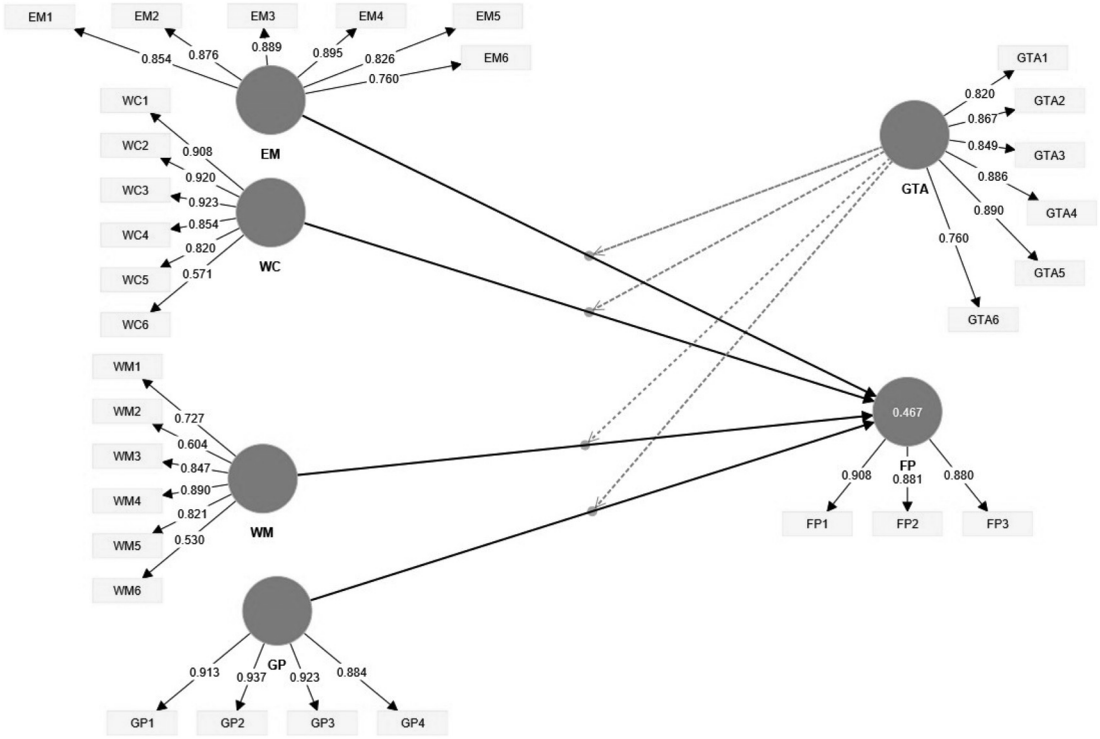


Figure 2 Measurement Model Assessment

To assess discriminant validity, it is important to measure how effectively a concept is distinguished from other concepts within the structural model. Fornell and Larcker (1981) proposed a standard metric for evaluating constructs. They suggested comparing the Average Variance Extracted (AVE) of each construct with the squared inter-construct correlation. This correlation is a useful indicator of the extent to which the construct being studied is related to other constructs that are measured in the structural model. Ensuring that the shared variance for all model constructs does not exceed their AVEs is crucial.

In a different perspective, Henseler et al. (2015) proposed the heterotrait-monotrait (HTMT) ratio of the correlations (Voorhees et al., 2016). If the HTMT value is higher than 0.90 in these cases, it suggests a lack of discriminant validity. However, if the constructs have different concepts, it is advisable to use a lower, more cautious threshold value, like 0.85 (Henseler et al., 2015). Therefore, the HTMT was utilised in this study to assess the discriminant validity. To establish discriminant validity, it is crucial to make sure that the HTMT value of each construct remains below 0.90 (Henseler et al., 2015). The results of Tables 3 and 4 demonstrate that the data has established discriminant validity.

Table 3: Discriminant Validity- HTMT Ratio

	Energy Management	Firm Performance	Green Purchasing	Green Technology Adoption	Water Conservation	Waste Management
Energy Management						
Firm Performance	0.624					
Green Purchasing	0.679	0.539				
Green Technology Adoption	0.759	0.658	0.801			
Water Conservation	0.731	0.518	0.051	0.770		
Waste Management	0.833	0.704	0.789	0.829	0.839	

Table 4: Discriminant Validity- Fornell Larcker Criterion

	Energy Management	Firm Performance	Green Purchasing	Green Technology Adoption	Water Conservation	Waste Management
Energy Management	0.851					
Firm Performance	0.567	0.890				
Green Purchasing	0.633	0.486	0.915			
Green Technology Adoption	0.706	0.601	0.742	0.846		
Water Conservation	0.681	0.482	0.802	0.726	0.892	
Waste Management	0.751	0.633	0.685	0.743	0.711	0.748

Structural Model Assessment

The coefficients for the relationships between the constructs in the structural model are determined by estimating a series of regression equations. High VIF values indicate the possibility of collinearity issues between predictor constructs. Each item's VIF should be less than 5, as stated by Hair et al. in 2017. Table 1 displays the VIFs for all constructs items, which were below the threshold of 5.

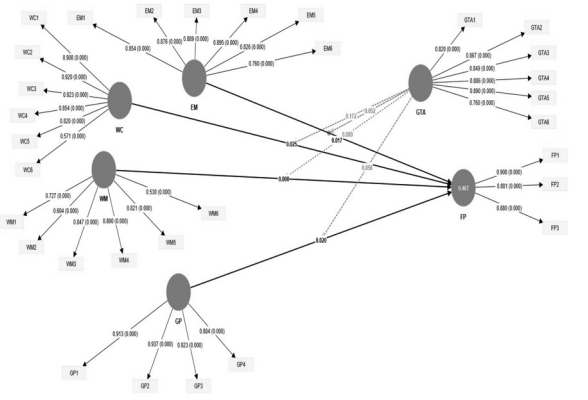


Figure 3 Structural Model Assessment

As per Cohen (1988), values greater than 0.02, 0.15, and 0.35 are typically regarded as indicating small, medium, and large f2 effect sizes. According to Table 4, energy management, green purchasing, green technology adoption, water conservation, and waste management all have small effect sizes on firm performance. The effect sizes for energy management, green purchasing, and water conservation are 0.013, 0.009, and 0.008 respectively, while the effect sizes for green technology adoption and waste management are 0.030 and 0.067.

To assess the predictive accuracy of the PLS path model, we can calculate the Q2 value using the methods described by Geisser (1974) and Stone (1974). Typically, Q2 values above specific thresholds indicate varying degrees of predictive relevance in the PLS-path model. Values greater than 0, 0.25, and 0.50 indicate varying degrees of predictive relevance - small, medium, and large, respectively. According to Table 4, the suggested framework has a moderate predictive relevance for the endogenous construct, with a Firm Performance value of 0.455.

The bootstrapping procedure was then utilised with 5000 resamples to assess the statistical significance of the path coefficients. The path coefficients for the hypothesized direct effects are shown in Table 5 and Figure 3. There is a positive relationship between energy management and the firm performance (â = 0.147, t = 2.122, p< 0.001), therefore, H1 is accepted. There is a positive relationship between water conservation and firm performance(â = 0.330, t = 1.968, p< 0.001), therefore, H2 is accepted.There is a positive relationship between waste management and firm performance(â = 0.365, t = 4.537, p< 0.001), therefore, H3 is accepted.There is a positive relationship between green purchasing and firm performance(â = 0.329, t = 2.052, p< 0.001), therefore, H4 is accepted.

Green technology adoption moderates the relationship between energy management and the firm performance(â = 0.116, t = 1.631, pd" 0.001), therefore, H5a is accepted.Green technology adoption does not moderate the relationship between water conservation and the firm performance(â = -0.246, t = 0.945, pe" 0.001), therefore, H5b is rejected.Green technology adoption moderates the relationship between waste management and the firm performance(â = -0.101, t = 2.052, pd"0.001), therefore, H5c is accepted.Green technology adoption moderates the relationship between green purchasing and the firm performance(â = 0.354, t = 1.592, pd" 0.001), therefore, H5d is accepted.

Table 5: Hypothesized Direct Effect

	Path Coefficient	T statistics	P values	Decision
EM -> FP	0.147	2.122	0.017	Supported
GP -> FP	0.329	2.052	0.020	Supported
GTA -> FP	0.230	2.617	0.004	Supported
WC -> FP	0.330	1.968	0.025	Supported
WM -> FP	0.365	4.537	0.000	Supported
GTA x WM -> FP	-0.101	1.406	0.080	Supported
GTA x WC -> FP	-0.246	0.945	0.172	Not Supported
GTA x GP -> FP	0.354	1.592	0.056	Supported
GTA x EM -> FP	0.116	1.631	0.052	Supported

Simple Slope Analysis

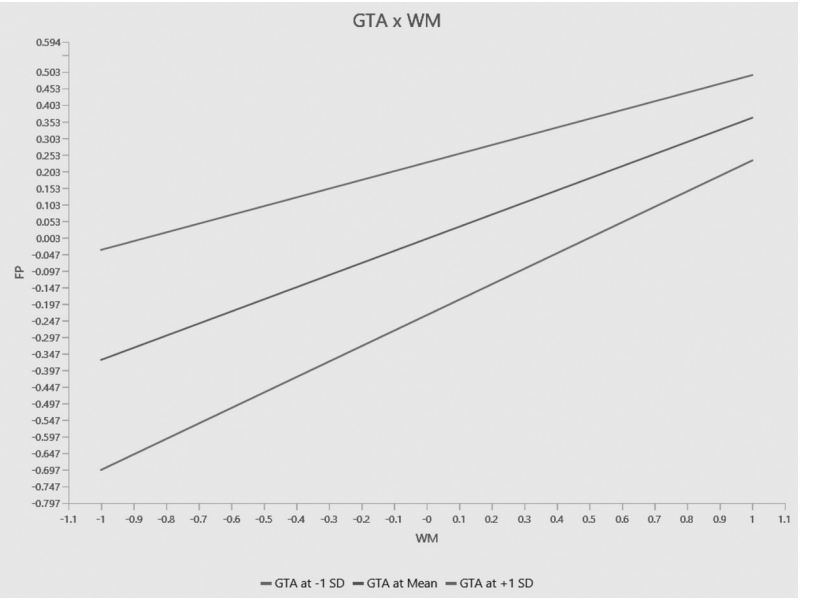


Figure 4: Slope Analysis GTA×WM

From the figure 4 of GTA×WM, we can conclude that when the green technology adoption is +1 SD then, the line becomes flatter which means that there is a weak

relationship between waste management and the firm performance. And, when the green technology adoption is at -1 SD then, the line becomes steeper means having a higher slope, therefore, there is a strong relationship between waste management and the firm performance.

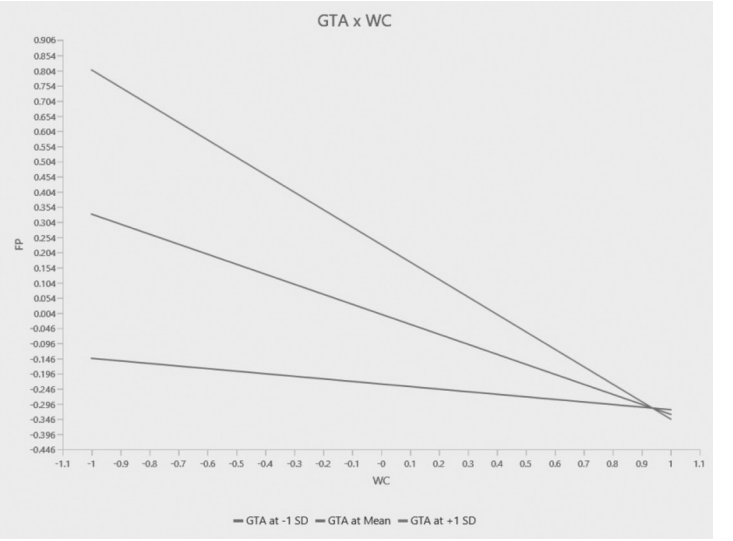


Figure 5: Slope Analysis GTA×WC

From the figure 5 of GTA×WC, we can conclude there is a negative interaction effect, therefore, when green technology adoption is +1 SD then,the line becomes steeper means having a higher slope means a weaker relationship between water conservation and firm performance. And, when the green technology adoption is at -1 SD then, the line becomes flatter which means that there is a strong relationship between waste management and the firm performance.

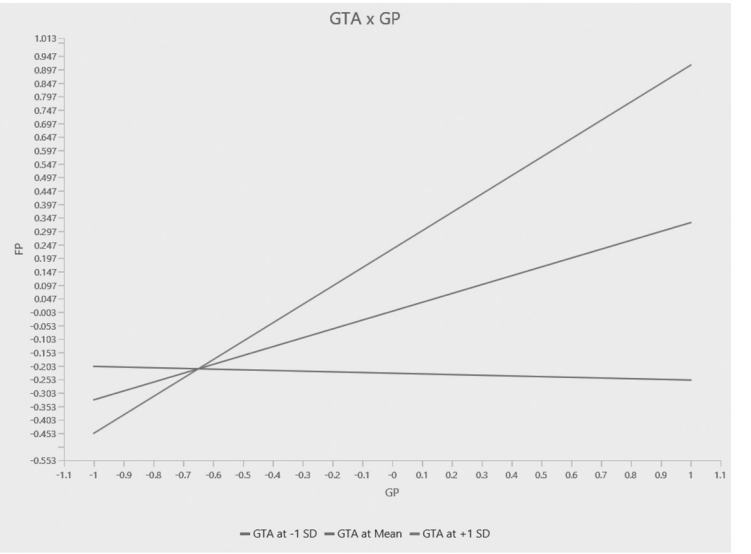


Figure 6: Slope analysis GTA×GP

From the figure 6 of GTA×GP, when green technology adoption is +1 SD then, the line becomes steeper means having a higher slope, therefore, there is a strong relationship between green purchasing and the firm performance. And, when the green technology adoption is at -1 SD then, the line becomes flatter which means that there is a weak relationship between green purchasing and the firm performance.

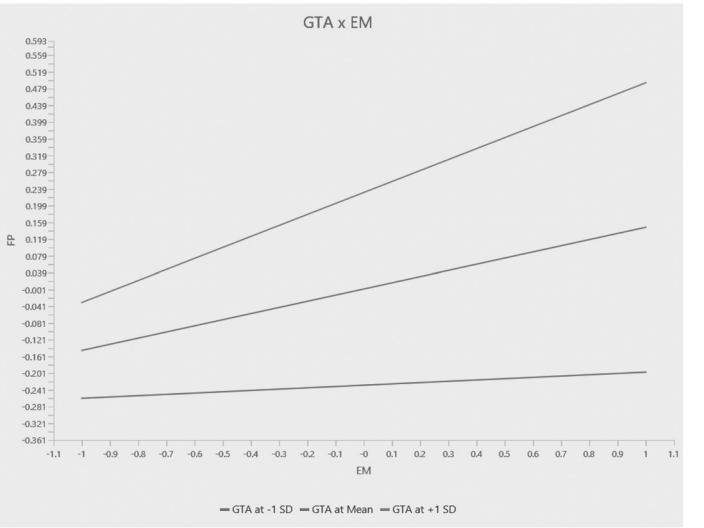


Figure 7: Slope analysis GTA×EM

From the figure 7 of GTA×EM, when green technology adoption is +1 SD then, the line becomes steeper means having a higher slope, therefore, there is a strong relationship between energy management and the firm performance. And, when the green technology adoption is at -1 SD then, the line becomes flatter which means that there is a weak relationship between energy management and the firm performance.

Discussion

This study examines the adoption of green initiatives and their impact on firm performance in the Indian leather and footwear manufacturing SMEs. The findings contribute significantly to the understanding of environmental management in SMEs, particularly in developing economies. The discussion revolves around the empirical support for the proposed hypotheses and the implications of these findings for theory and practice.

The hypothesis (H1) that there is a positive relationship between energy management and firm performance is supported ($\hat{a} = 0.147$, $t = 2.122$, $p < 0.001$). This aligns with previous research (Chong et al., 2012) that emphasizes the importance of energy management in reducing production costs and enhancing sustainability. The findings suggest that SMEs that invest in energy-efficient technologies and practices can improve their performance, thereby validating the critical role of energy management in achieving sustainable business operations. This is consistent with Porter and van der Linde's (1995) assertion that proactive environmental strategies, such as energy management, not only reduce costs but also drive innovation and competitive advantage. Additionally, Hart's (1995) natural-resource-based view posits that energy management can be a strategic resource that contributes to firm performance through cost savings and improved efficiency.

The study supports the hypothesis (H2) that water conservation positively affects firm performance ($\hat{a} = 0.330$, $t = 1.968$, $p < 0.001$). This is consistent with the assersion of Mofokeng (2013) that water conservation, despite requiring initial investment, enhances long-term efficiency and profitability. The significant relationship highlights the necessity for SMEs to integrate systematic water conservation practices to optimize resource use and reduce operational costs. This finding is also in line with studies by Cleff and Rennings (2012), who found that water conservation measures lead to better financial performance through reduced utility costs and improved resource efficiency. Furthermore, the emphasis on water conservation reflects the increasing regulatory and social pressures on firms to manage water resources sustainably, a trend observed in various industries globally (Goyal et al., 2013).

The hypothesis (H3) that waste management positively impacts firm performance is confirmed (â = 0.365, t = 4.537, p < 0.001). The findings align with the arguments of Tchobanoglous (2009) and Winfrey and Tilley (2016), who emphasize the importance of proper waste management in minimizing environmental impact and improving operational efficiency. The significant relationship underscores the need for SMEs to adopt comprehensive waste management strategies to enhance environmental performance and operational sustainability. The study's findings resonate with earlier research by Zhu et al. (2008), which demonstrated that waste management practices lead to cost savings and improved operational efficiencies, thereby enhancing firm performance. Additionally, the resource-based view (RBV) suggests that waste management can serve as a critical resource that provides firms with competitive advantages through cost reductions and enhanced brand reputation (Barney, 1991).

The positive relationship between green purchasing and firm performance (H4) is also supported (â = 0.329, t = 2.052, p < 0.001). This finding is consistent with Min and Galle's (2001) definition of green purchasing as practices that reduce waste and promote recycling without compromising performance. The results indicate that SMEs that adopt environmentally conscious purchasing practices can enhance their performance, likely due to increased efficiency and compliance with environmental regulations. The study supports the findings of Carter and Rogers (2008), who found that sustainable supply chain practices, including green purchasing, contribute to improved firm performance by enhancing operational efficiencies and meeting stakeholder expectations. Furthermore, green purchasing aligns with the institutional theory, which posits that firms adopt sustainable practices in response to regulatory pressures and normative expectations from stakeholders (DiMaggio & Powell, 1983).

The study examines the moderating effect of green technology adoption on the relationship between green initiatives and firm performance. The findings partially support the hypothesis (H5). Specifically, green technology adoption moderates the relationship between energy management and firm performance (â = 0.116, t = 1.631, p d"'/\˘o/˘ 0.001), waste management and firm performance (â = -0.101, t = 2.052, p d"'/\˘o/˘ 0.001), and green purchasing and firm performance (â = 0.354, t = 1.592, p d"'/\˘o/˘ 0.001). However, it does not moderate the relationship between water conservation and firm performance (â = -0.246, t = 0.945, p e"'/\˘o/˘ 0.001).

The positive moderation of green technology adoption in the relationships involving energy management and green purchasing indicates that the adoption of advanced technologies enhances the benefits of these initiatives. This is consistent with Yacob et

al. (2019), who argue that green technology adoption reduces the environmental impact of business activities. The findings suggest that green technology can amplify the efficiency gains from energy management and the operational benefits from green purchasing by integrating advanced systems and processes that optimize resource use and reduce waste.

However, the negative moderation in the waste management relationship suggests that while green technology can enhance performance, its integration in waste management might require more careful alignment with existing practices to achieve optimal benefits. This finding highlights a potential misalignment between existing waste management practices and the newly adopted green technologies, indicating a need for better integration and customization of technologies to fit specific operational contexts. This is supported by research from Zhu et al. (2010), who found that the effectiveness of green technologies in waste management is contingent upon the firm's ability to align these technologies with its existing processes and practices.

The absence of moderation in the water conservation relationship may suggest that green technology adoption in this area is either already optimized or that additional technologies do not significantly enhance performance. This could be due to the inherent efficiency of current water conservation practices or the saturation point where further technological investments yield diminishing returns. This finding aligns with the results from studies like those of Worrell et al. (2003), which show that beyond a certain point, additional technological interventions in water management may not produce substantial performance gains.

Theoretical Contribution

This research makes significant theoretical contributions to the literature on sustainability, technology adoption, and firm performance, specifically within SMEs in the leather and footwear manufacturing industry. Firstly, it extends the resource-based view (RBV) by demonstrating how green initiatives can enhance firm performance as strategic resources. Traditionally, RBV emphasizes valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). This study shows that green initiatives can serve as strategic resources, supporting previous findings that link sustainability practices to enhanced operational performance (Hart, 1995).

Secondly, the study integrates the technology-organization-environment (TOE) framework to highlight the moderating role of green technology adoption on the relationship between green initiatives and firm performance (Tornatzky & Fleischer,

1990). This provides a nuanced understanding of how external technological advancements and internal organizational capabilities interact to influence sustainability outcomes, enriching the TOE framework with empirical evidence. Furthermore, the research contributes to eco-innovation discourse by showing that green technology adoption amplifies the positive impacts of green initiatives (Rennings, 2000). This emphasizes the strategic importance of selecting and implementing the right technologies to complement sustainability efforts. Finally, the study addresses a gap in the literature on the leather and footwear industry, offering industry-specific insights that inform both academic inquiry and practical applications, thus enhancing our understanding of effective sustainability practices across different industrial contexts.

This research offers practical implications for SME managers in the leather and footwear manufacturing industry, as well as policymakers and stakeholders focused on sustainable business practices. The study reveals the positive impact of green initiatives on firm performance, urging SMEs to integrate environmental sustainability into their strategies. Managers should adopt practices like waste reduction, energy efficiency, and sustainable sourcing to enhance both environmental protection and operational efficiency (Porter & van der Linde, 1995). Moreover, the study highlights the importance of green technology adoption. SMEs should invest in technologies that support their green initiatives, such as energy-efficient machinery and renewable energy systems (Rennings, 2000).

This alignment can amplify the benefits of sustainability efforts, leading to superior firm performance. Policymakers can facilitate the adoption of green technologies by providing incentives, subsidies, and support programs, reducing the financial burden on SMEs and encouraging sustainability (Jenkins, 2009). Additionally, industry associations should promote awareness and training on best practices, fostering knowledge sharing and collaboration among SMEs to overcome common challenges (Del Brío & Junquera, 2003). In summary, a strategic approach to sustainability that integrates green initiatives and technologies can significantly improve firm performance. These insights can help SME managers and policymakers foster a more sustainable and competitive industry.

Limitations and Future Research

Despite its contributions, this research has several limitations. Firstly, it focuses exclusively on leather and footwear manufacturing SMEs in India, limiting the generalizability to other industries or regions. Future studies should include diverse

industries and international contexts to validate these findings. Secondly, the research relies on self-reported data from SME managers, which may be biased. Future research should use multiple data sources, such as financial reports, third-party audits, and customer feedback, to enhance data reliability. Thirdly, while the study examines the moderating role of green technology adoption, it does not explore specific types of green technologies and their impacts. Future research should identify which technologies are most effective in enhancing firm performance when combined with green initiatives.

Additionally, the cross-sectional design limits the ability to establish causal relationships. Longitudinal studies would help examine how green initiatives and technologies evolve over time and their long-term effects on performance. Finally, the study focuses on quantitative measures of performance, such as financial outcomes and operational efficiency. Future research should include qualitative measures, such as employee satisfaction, brand reputation, and customer loyalty, for a more holistic view. Addressing these limitations can provide deeper insights into the dynamics between green initiatives, technology adoption, and firm performance, aiding SMEs in their sustainability efforts.

References

Agan, Y., Acar, M. F., & Borodin, A. (2013). Drivers of environmental processes and their impact on performance: a study of Turkish SMEs. *Journal of cleaner production*, *51*, 23-33.

Aziz, N., Govindan, K., Palaniappan, P.L., & Thavagnanam, H.S. (2018). A review on the green initiatives implemented in the Indian manufacturing sector. *Journal of Cleaner Production, 198*, 663-684.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management, 17*(1), 99-120.

Bay, N., & Rasmussen, K. (2011). Environmental impacts and initiatives in the manufacturing sector: A study of Danish SMEs. *Business Strategy and the Environment, 20*(6), 423-434.

Cato, M. S., Arthur, L., Keenoy, T., & Smith, R. (2008). Entrepreneurial energy: associative entrepreneurship in the renewable energy sector in Wales. *International Journal of Entrepreneurial Behavior & Research*, *14*(5), 313-329.

Chen, F., Ngniatedema, T., & Li, S. (2018). A cross-country comparison of green initiatives, green performance and financial performance. *Management Decision*, *56*(5), 1008-1032.

Chen, Y. S., Chang, T. W., Lin, C. Y., Lai, P. Y., & Wang, K. H. (2016). The influence of proactive green innovation and reactive green innovation on green product development performance: The mediation role of green creativity. *Sustainability*, *8*(10), 966.

Choong, W. W., Chong, Y. F., Low, S. T., & Mohammed, A. H. (2012). Implementation of energy management key practices in Malaysian universities. *International Journal of Emerging Sciences*, *2*(3), 455-477.

Cohen, J. (1988), *Statistical Power Analysis for the Behavioral Sciences.* Lawrence Erlbaum Associates: Copenhagen Business School.

Daily, G. C. (1991). Value of nature and the nature of value. *Science, 289*(5478), 395-396.

Del Brío, J. Á., & Junquera, B. (2003). A review of the literature on environmental innovation management in SMEs: implications for public policies. *Technovation, 23*(12), 939-948.

Dhillon, P., Kumar, R., & Sharma, S. (2012). Simplified loan programs for SMEs: A study of banking initiatives in India. *Journal of Banking and Finance Perspectives*, 4(2), 45-57.

El Baz, J., & Laguir, I. (2017). Green innovation and firm performance: Evidence from French manufacturing SMEs. *Technological Forecasting and Social Change, 120*, 251-260.

Gaur, S., Kumar, M., & Singh, D. (2011). SME financing by banks in India. *International Journal of Business Insights and Transformation, 4*(2), 9-18.

Geisser, S. (1974). A predictive approach to the random effect model. *Biometrika, 61*(1), 101-107.

Gibbs, D., & O'Neill, K. (2014). Rethinking sociotechnical transitions and green entrepreneurship: the potential for transformative change in the green building sector. *Environment and Planning A*, *46*(5), 1088-1107.

Govt. of India. (n.d.). Micro, small & medium enterprises. Retrieved from *https://msme.gov.in*

Hair, J.F., Ringle, C.M. & Sarstedt, M. (2017). PLS-SEM: Indeed, a silver bullet. *Journal of Marketing Theory and Practice, 19(*2), 139-151.

Handfield, R., Sroufe, R., & Walton, S. (2005). Integrating environmental management and supply chain strategies. *Business Strategy and the Environment*, *14*(1), 1-19.

Hart, S. L. (1995). A Natural-Resource-Based View of the Firm. *Academy of Management Review, 20*(4), 986-1014.

Henseler, J., Ringle, C.M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43,* 115-135.

Jazairy, A., & Haartman, R. (2020). Green purchasing strategies in the context of SMEs: A systematic review. *Sustainability, 12*(6), 2563.

Jenkins, H. (2009). A 'business opportunity model of corporate social responsibility for small-and medium-sized enterprises. *Business Ethics: A European Review, 18*(1), 21-36.

Kannan, R., & Boie, W. (2003). Energy management practices in SME—case study of a bakery in Germany. *Energy Conversion and Management*, *44*(6), 945-959.

Kenny, J.F., Barber, N.L., Hutson, S.S., Linsey, K.S., Lovelace, J.K., & Maupin, M.A. (2009). Estimated use of water in the United States in 2005. *U.S. Geological Survey Circular, 1344.*

Kirkwood, J., & Walton, S. (2010). How green is green? SMEs and environmental practices in a New Zealand context. *Business Strategy and the Environment, 19*(8), 525-536.

KPMG. (2017). *Impact of internet on SMEs in India*. Retrieved from *https://home.kpmg/in/en/home/insights/2017/10/impact-of-internet-on-smes-in-india.html*

Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, *30*(3), 607-610.

Lahiri, S. (2012). Problems and prospects of micro, small and medium enterprises (MSMEs) in India. *International Journal of Management and Social Sciences Research, 1*(1), 1-10.

Lema, R., Quadros, R., & Schmitz, H. (2012). Digital SME skills development in India: The impact of Facebook and Google training programs. *Journal of Digital Skills Development*, 5(1), 35-48.

Manian, K., & Ashwin, J. N. (2014). Present green marketing-brief reference to Indian scenario. *International Journal of Scientific Research and Management*, *2*(3), 51-57.

Maruthi, G. D., & Rashmi, R. (2015). Green Manufacturing: It's Tools and Techniques that can be implemented in Manufacturing Sectors. *Materials Today: Proceedings*, *2*(4-5), 3350-3355.

Mehta, A. (2013). Green marketing practice in Indian business environment: a conceptual review. *International Journal of Business and Globalisation*, *11*(2), 187-209.

Min, H., & Galle, W. P. (2001). Green purchasing management in the private and public sectors. *International Journal of Operations & Production Management*, *21*(9/10), 1223-1238.

Minor, D., & Morgan, J. (2011). CSR as reputation insurance: Primum non nocere. *California Management Review*, *53*(3), 40-59.

Mofokeng, T. (2013). Water conservation strategies for SMEs: A study in South Africa. *Journal of Sustainable Development, 6*(9), 104-112.

Nacu, C. M., & Avasilcãi, S. (2014). Technological ecopreneurship: conceptual approaches. *Procedia-Social and Behavioral Sciences*, *124*, 229-235.

Nunes, B., & Bennett, D. (2010). Green operations initiatives in the automotive industry: An environmental report analysis and benchmarking study. *Benchmarking: An International Journal, 17*(3), 396-420.

OECD. (2019). *Environmental Performance Reviews: India 2019*. Paris: OECD Publishing. https://doi.org/10.1787/9789264311843-en

Patrício, J., Barton, J.R., & Cordey-Hayes, M. (2015). Waste management practices and the impact on the environmental performance of SMEs in the Brazilian industrial sector. *Journal of Environmental Management, 153*, 92-99.

Plambeck, E. L., & Denend, L. (2011). The greening of Walmart's supply chain—revisited. *Supply Chain Management Review*, *15*(5).

Porter, M., & Van der Linde, C. (1995). Green and competitive: ending the stalemate. *The Dynamics of the Eco-efficient Economy: Environmental Regulation and Competitive Advantage*, *33*, 120-134.

Pujari, D. (2006). Eco-innovation and new product development: Understanding the influences on market performance. *Technovation, 26*(1), 76-85.

Rennings, K. (2000). Redefining innovation—eco-innovation research and the contribution from ecological economics. *Ecological Economics, 32*(2), 319-332.

Roberts, A., Smith, B., & Johnson, C. (2019). Global economic outlook. *Journal of Economic*

Growth, 12(3), 45-67.

Sellitto, M. A. (2018). Assessment of the effectiveness of green practices in the management of two supply chains. *Business Process Management Journal, 24*(1), 23-48.

Sharma, S., & Vredenburg, H. (1998). Proactive corporate environmental strategy and the development of competitively valuable organizational capabilities. *Strategic Management Journal*, *19*(8), 729-753.

Singh, R., Garg, S., & Deshmukh, S. G. (2009). The competitiveness of SMEs in a globalized economy: Observations from China and India. *Management Research Review, 32*(1), 45-65.

Stone, M. (1974), Cross-validatory choice and assessment of statistical predictions. *Journal of the Royal Statistical Society, 36(*2), 111-147.

Subrahmanya, M. B. (2007). Development strategies for Indian SMEs: promoting linkages with global transnational corporations. *Management Research News*, *30*(10), 762-774.

Tchobanoglous, G. (2009). Waste management strategies and policies for sustainable cities. *Waste Management*, *29*(4), 1337-1348.

Thanki, S., & Thakkar, J. (2018). A quantitative framework for lean and green assessment of supply chain performance. *International Journal of Productivity and Performance Management*, *67*(2), 366-400.

Todd, P. R., Javalgi, R. G., & Grossman, D. A. (2007). Understanding the characteristics of growth in small and medium-sized enterprises: An examination of success factors and challenges in emerging markets. *Journal of Small Business Management, 45*(1), 35-50.

Tornatzky, L. G., & Fleischer, M. (1990). *The Processes of Technological Innovation.*

Lexington Books.

Udawatta, N., Zuo, J., Chiveralls, K., & Zillante, G. (2021). From green buildings to living buildings? Rating schemes and waste management practices in Australian educational buildings. *Engineering, Construction and Architectural Management*, *28*(4), 1278-1294.

Voorhees, C.M., Brady, M.K., Calantone, R. and Ramirez, E. (2016). Discriminant validity testing in marketing: An analysis, causes for concern, and proposed remedies. *Journal of the Academy of Marketing Science, 44(*1), 119-134.

Weerasiri, R., & Zhengang, Z. (2012). The role of green supply chain management in improving waste management practices in SMEs. *International Journal of Business and Management, 7*(12), 118-126.

Winfrey, B. K., & Tilley, D. R. (2016). An emergy-based treatment sustainability index for evaluating waste treatment systems. *Journal of Cleaner Production*, *112*, 4485-4496.

Yacob, P., Wong, L. S., & Khor, S. C. (2019). An empirical investigation of green initiatives and environmental sustainability for manufacturing SMEs. *Journal of Manufacturing Technology Management*, *30*(1), 2-25.

Yadav, R., Sharma, A., & Singh, V. (2019). SME confidence in India: A comparative study with Asian counterparts. *Journal of Small Business Confidence*, 7(2), 123-135.

Rethinking Business Management Curriculum: Learning from What Went Wrong

*G. P. Sudhakar**

Abstract

Business schools have continually updated their curricula to keep pace with changes in the business environment by introducing subjects such as analytics, digital technologies, sustainability and entrepreneurship. These changes have undoubtedly helped graduates respond to emerging industry needs. Yet repeated corporate failures, governance breakdowns, ethical lapses and growing concerns about the social and environmental impact of business suggest that a more fundamental question deserves attention. Are business schools developing managers with the judgement, values and long-term perspective needed to address these challenges? Curriculum reform has traditionally been guided by the changing needs of industry, employer expectations and academic opinion. The study undertakes a qualitative thematic synthesis of thirteen selected works representing two broad streams of thought: those that identify major shortcomings in business and management, and those that propose more responsible and sustainable alternatives. Despite differences in perspective, the selected works repeatedly emphasize ethical leadership, transparency, stakeholder orientation, long-term value creation, critical thinking, systems thinking, personal development and sustainability. The consistency with which these themes emerge suggests that they are not isolated concerns, but fundamental issues deserve greater attention in management education. It is hoped that the findings will contribute to the continuing discussion on redesigning business management curricula for a rapidly changing world.

Keywords: Ethical Failures, Failure of Nerve, Money for Nothing, Pursuit of Profit, The Golden Passport.

Introduction

Education management has continually evolved to reflect changes in business and society. Over the years, business schools have revised their curricula by introducing subjects such as analytics, digital transformation, entrepreneurship and sustainability to prepare graduates for emerging industry needs. These changes have undoubtedly helped students respond to an increasingly complex business environment. At the

* *Research Guide, Centre for Educational and Social Studies, Nagarbhavi, Bengaluru, India*
Email: gpsudhakar@gmail.com

same time, the world of business continues to face recurring challenges, including corporate failures, governance breakdowns, ethical lapses, environmental degradation and growing public distrust of business institutions. Numerous authors have examined these issues from different perspectives and have questioned not only the conduct of business but also the assumptions underlying management education. Their work raises an important question: if these problems continue to recur despite decades of management education, are business schools preparing managers for the right kind of success?

Curriculum reform has traditionally been guided by employer expectations, technological change and emerging skill requirements. While these are undoubtedly important, they represent only one perspective. An equally important question is what management education can learn from the recurring problems identified by thoughtful observers of business. Understanding these concerns may help curriculum developers prepare managers who are not only technically competent but also capable of exercising sound judgement, balancing stakeholder interests and creating responsible organisations. This paper adopts that perspective. Rather than beginning with the skills employers expect, it begins with what selected works repeatedly identify as having gone wrong in business and management. By synthesising these recurring themes, the paper seeks to identify priorities for rethinking business management curriculum.

Review of Literature

Curriculum reform has long been an important concern in management education because business environments, organisations and societal expectations continue to evolve. More than six decades ago, the American Accounting Association (1961) observed that management education had become overly focused on technical competence at the expense of interpretation, managerial judgement and the broader capabilities required for leadership. Although written in a different era, this concern remains remarkably relevant today. Similarly, Datar, Garvin and Cullen (2010) argued that management education should move beyond simply imparting knowledge ("knowing") to developing managerial capability ("doing") and professional identity ("being"). Together, these contributions demonstrate that the question of what business schools should teach has been debated for decades rather than being a recent concern.

In recent years, curriculum reform has accelerated in response to rapid technological, economic and societal change. Business schools have introduced new courses in areas such as analytics, artificial intelligence, entrepreneurship, sustainability and digital

transformation, while placing greater emphasis on experiential learning and interdisciplinary learning. International accreditation bodies and initiatives such as the Association to Advance Collegiate Schools of Business (AACSB International) and the Principles for Responsible Management Education (PRME) have similarly encouraged business schools to develop graduates who combine technical competence with ethical judgement, responsible leadership and societal impact (AACSB, 2020; Morsing, 2022). Recent studies likewise emphasise that management education must continue to evolve to respond to emerging technologies, changing business environments and new societal expectations (Bellary et al., 2025; Jain et al., 2025).

Most studies on curriculum reform derive their recommendations from employer expectations, industry needs, faculty opinion, alumni feedback, accreditation requirements or benchmarking with leading institutions. These approaches have undoubtedly strengthened the relevance of management education and helped align curricula with changing professional requirements. Denning (2018), for example, argues that business schools must continually rethink their curricula if they are to remain relevant in a rapidly changing world. However, these approaches largely begin with a common question: What knowledge, skills and competencies will future managers require? Surprisingly, relatively little attention has been given to an equally important question: What can management education learn from the recurring shortcomings identified by thoughtful observers of business itself? If similar concerns continue to emerge across diverse works examining leadership, governance, ethics, capitalism and management practice, they may provide valuable insights into the capabilities and judgement that future managers should develop.

This paper addresses that gap through a qualitative thematic synthesis of thirteen selected works representing two broad streams of thought: those that identify recurring shortcomings in business and management, and those that propose more responsible and sustainable alternatives. Rather than evaluating the selected works individually, the paper identifies recurring themes across these works and examines their implications for rethinking business management curriculum.

Method

This study adopts a qualitative thematic synthesis to examine the implications of contemporary business literature for management curriculum. Rather than reviewing the selected works individually, the study seeks to identify recurring concerns about business, leadership and management, and to examine what these collectively suggest for curriculum reform. The selected works comprised two complementary groups.

The first consisted of ten works that examined recurring shortcomings in contemporary business, including leadership failures, corporate governance, ethics, capitalism, organisational behaviour and corporate misconduct. The second consisted of three works that proposed more responsible and sustainable approaches to business and management. Together, these works provide both a diagnosis of recurring problems and insights into possible future directions.

The selected works were purposively chosen on the basis of their relevance, influence and diversity of perspectives. Together, they represent a broad cross-section of viewpoints on contemporary business and provide a suitable basis for identifying recurring themes across different authors, time periods and contexts. Each selected work was reviewed to identify the principal concerns raised by the author and the implications for management education, whether explicitly discussed or inferred from the author's analysis. The recurring themes were then synthesised to identify common patterns and areas of convergence across the selected works. The underlying premise of the study is that when similar concerns recur across influential works written independently, over different periods and from different perspectives, they are unlikely to be incidental. Such recurring themes therefore provide a useful basis for identifying the knowledge, capabilities and managerial judgement that deserve greater emphasis in business management curriculum.

As a conceptual study, the findings are necessarily influenced by the purposive selection of the works reviewed. The selected works do not represent all viewpoints on business or management education, nor do they constitute a comprehensive review of the literature. Rather, they provide a diverse body of evidence from which recurring themes relevant to curriculum reform can be identified and discussed.

Evidence from Selected Works: Lessons for Curriculum Reform

I. Recurring Shortcomings in Contemporary Business

1. Failure of Nerve (Friedman, 2007)

What the work is about: In *Failure of Nerve*, Edwin H. Friedman examines the challenges of leadership in an increasingly anxious and rapidly changing world. Although the book draws heavily on family systems theory, its insights extend well beyond families to organisations, educational institutions and businesses. Friedman argues that many leaders seek quick solutions to complex problems, avoid difficult conversations and become overly influenced by the anxiety and expectations of those around them. The result

is leadership that reacts to immediate pressures rather than exercising independent judgement and long-term thinking.

Central contribution: The book challenges the traditional view that effective leadership depends primarily on technical knowledge, analytical ability or managerial skills. Friedman argues that organisations need leaders who possess emotional maturity, self-awareness and the courage to make difficult decisions despite uncertainty or opposition. He also emphasises systems thinking, encouraging leaders to understand organisations as interconnected systems where actions often produce unintended consequences. These qualities enable leaders to respond thoughtfully rather than react impulsively to changing circumstances.

Why this work matters: Although written more than two decades ago, the book remains highly relevant in today's volatile and uncertain business environment. It shifts the discussion on leadership away from techniques and tools towards the character, judgement and emotional resilience of leaders. In doing so, it raises a broader question about whether management education has devoted sufficient attention to developing these qualities alongside functional competencies.

Lessons for curriculum reform: This work suggests that management education should place greater emphasis on developing managerial judgement, emotional resilience, systems thinking and self-awareness. While analytical and technical skills remain essential, they are insufficient on their own for leading organisations through uncertainty and complexity. Preparing future managers therefore requires greater attention to personal development, reflection, communication and the ability to understand organisations as dynamic systems rather than collections of independent functions.

2. Money for Nothing: How the Failure of Corporate Boards Is Ruining American Business and Costing Us Trillions (Gillespie, 2016)

What the work is about: John Gillespie examines one of the least visible yet most influential aspects of modern business—the effectiveness of corporate boards. Through numerous examples, the book argues that many corporate failures cannot be explained solely by poor executive leadership. Instead, they often reflect weak governance, passive boards, conflicts of interest and

a failure to provide meaningful oversight. According to Gillespie, these weaknesses have imposed enormous financial and social costs while undermining public confidence in business institutions.

Central contribution: The book argues that boards frequently fail to discharge their fiduciary responsibilities because of inadequate independence, excessive deference to senior management and insufficient understanding of governance responsibilities. Effective governance requires far more than compliance with regulations. It demands independent judgement, constructive challenge, transparency and accountability. Gillespie therefore shifts attention from the behaviour of individual executives to the governance systems that shape organisational decision-making.

Why this work matters: Management education traditionally devotes considerable attention to strategy, finance, marketing and organisational behaviour, but relatively little to the responsibilities and functioning of corporate boards. Yet governance failures repeatedly feature in major corporate scandals and have significant consequences for shareholders, employees, customers and society. Gillespie's work highlights that responsible management requires not only competent executives but also effective systems of governance capable of providing oversight and accountability.

Lessons for curriculum reform: The book highlights the need for stronger coverage of corporate governance within management programmes. Future managers should understand the roles and responsibilities of boards, fiduciary duty, transparency, accountability, risk oversight and ethical decision-making. Equally important is developing the confidence to question assumptions, challenge decisions constructively and appreciate that effective governance is central to creating responsible and sustainable organisations rather than merely ensuring regulatory compliance.

3. Nazi Billionaires (De Jong, 2022)

What the work is about: *Nazi Billionaires* examines how several of Germany's most prominent industrial families accumulated enormous wealth during the Nazi era through close associations with the regime. Drawing on extensive historical evidence, David de Jong documents how businesses benefited from forced labour, the confiscation of Jewish-owned enterprises and political patronage. More importantly, the book explores how many of these

relationships remained hidden for decades, raising difficult questions about corporate responsibility, historical accountability and the ethical foundations of business success.

Central contribution: The book demonstrates that business decisions cannot be separated from their political, social and ethical contexts. Commercial success achieved by compromising fundamental human values may create wealth, but it also leaves a legacy of injustice that can endure across generations. De Jong therefore challenges the traditional tendency to evaluate organisations primarily through financial performance by reminding readers that business history also contains examples of profound ethical failure.

Why this work matters: Although the events described belong to a particular historical period, the questions raised by the book remain relevant. It reminds us that managers and business leaders operate within society and cannot escape responsibility for the consequences of their decisions. The book also demonstrates the importance of understanding business history, not merely as a record of commercial achievement, but as a source of ethical lessons for future generations of managers.

Lessons for curriculum reform: Management education should provide greater exposure to the ethical and historical dimensions of business. Future managers need opportunities to examine how organisations respond to political pressure, balance commercial objectives with human rights and recognise the long-term consequences of unethical decisions. Such discussions help develop moral judgement alongside technical competence and encourage managers to view business success within its broader social context.

4. The Man Who Broke Capitalism (Gelles, 2020)

What the work is about: In *The Man Who Broke Capitalism*, David Gelles examines the career of Jack Welch, one of the most influential business leaders of the twentieth century. The book traces Welch's transformation of General Electric into one of the world's most admired companies while critically examining the management philosophy that accompanied this success. Gelles argues that Welch's relentless emphasis on shareholder value, cost reduction and short-term financial performance reshaped corporate America but also

contributed to widening inequality, weakened organisational cultures and a narrowing of business purpose.

Central contribution: The book questions whether management practices that deliver impressive financial results necessarily create better organisations or a better society. Gelles argues that excessive emphasis on shareholder value encouraged managers to prioritise quarterly performance over long-term investment, employee development and broader stakeholder interests. In doing so, he challenges one of the most influential assumptions underlying contemporary management thinking—that maximising shareholder wealth is the primary purpose of business.

Why this work matters: Jack Welch influenced generations of managers, consultants and business schools. His management philosophy became widely taught and admired, making this work particularly significant for management education. Gelles does not simply critique one individual; he questions an entire approach to management that shaped business practice for several decades. The book therefore encourages educators to reconsider whether some of the assumptions traditionally promoted in management classrooms continue to serve organisations and society well.

Lessons for curriculum reform: The book highlights the need for greater emphasis on long-term value creation, stakeholder orientation and responsible leadership. Students should be encouraged to evaluate organisational success using broader criteria than short-term financial performance alone. Management education should also expose students to competing perspectives on the purpose of business, enabling them to critically examine dominant management philosophies rather than accepting them uncritically.

5. The Golden Passport (McDonald, 2017)

What the work is about: In *The Golden Passport*, Duff McDonald critically examines the history and influence of Harvard Business School, one of the world's most influential institutions for management education. Rather than questioning the quality of the School itself, the book asks whether the philosophy of management it helped shape has contributed to many of the problems confronting contemporary business. McDonald traces the evolution of MBA education and argues that, over time, increasing emphasis on

financial performance, analytical techniques and career success often overshadowed broader questions of ethics, responsibility and the purpose of business.

Central contribution: The book raises fundamental questions about what management education should seek to achieve. McDonald argues that business schools have often rewarded analytical ability and financial success while giving comparatively less attention to moral judgement, social responsibility and the wider consequences of managerial decisions. He also questions whether the widespread use of the case method, while valuable for developing analytical thinking and decision-making, sometimes encourages students to focus on solving business problems without giving equal attention to their ethical and societal implications.

Why this work matters: Among the selected works, this book is unique because it examines management education itself rather than business practice alone. It challenges educators to reflect on the assumptions underlying MBA programmes and asks whether business schools are producing graduates who are merely capable managers or responsible leaders. As one of the most influential institutions in management education, Harvard Business School has shaped curricula across the world. Consequently, questions raised about its educational philosophy deserve careful consideration by all curriculum developers.

Lessons for curriculum reform: The book suggests that management education should strive for a better balance between analytical competence and managerial judgement. While finance, strategy and quantitative analysis remain essential, they should be complemented by greater emphasis on ethics, responsible leadership, stakeholder perspectives and the broader purpose of business. It also encourages educators to critically examine teaching methods and learning experiences to ensure that students develop not only the ability to solve business problems but also the wisdom to recognise their wider consequences.

6. What's Wrong with Damn Near Everything! (Winget, 2009)

What the work is about: In *What's Wrong with Damn Near Everything!*, Larry Winget presents a provocative critique of contemporary society, arguing that many of today's personal, organisational and social problems stem from the

gradual erosion of core values and personal responsibility. Although the book extends well beyond business, it examines issues such as declining standards, entitlement, poor financial discipline, weak work ethic and the tendency to expect quick solutions rather than sustained effort. Winget argues that lasting improvement begins with individuals taking responsibility for their own actions rather than expecting institutions or governments to solve every problem.

Central contribution: Unlike most of the selected works, Winget focuses less on corporate systems and more on the character and behaviour of individuals. His central argument is that organisations ultimately reflect the values of the people who lead and work within them. Weak organisational cultures, poor leadership and declining standards are therefore symptoms of deeper issues relating to personal responsibility, discipline and values. Sustainable organisational improvement requires attention to these foundations rather than relying solely on new policies or management techniques.

Why this work matters: Management education often concentrates on developing knowledge and professional skills while assuming that values, attitudes and habits are largely formed elsewhere. Winget challenges this assumption by arguing that personal responsibility and character are integral to professional success. Whether or not one agrees with all of his conclusions, the book raises an important question for educators: should business schools devote greater attention to personal development alongside technical and managerial competence?

Lessons for curriculum reform: The work supports greater emphasis on personal growth as an integral part of management education. Future managers should be encouraged to develop self-discipline, professionalism, ethical behaviour, financial responsibility, critical thinking and effective interpersonal skills. Such capabilities cannot be acquired through technical courses alone but require learning experiences that encourage reflection, accountability and continuous personal development.

7. The Origins of Ethical Failures (Gentilin, 2024)

What the work is about: In *The Origins of Ethical Failures*, Denis Gentilin examines why ethical failures continue to occur across organisations despite increasing regulation, corporate governance frameworks and ethics

programmes. Rather than attributing misconduct solely to individual wrongdoing, the book explores how organisational culture, leadership, incentives, decision-making processes and governance systems interact to shape ethical behaviour. Drawing on a range of corporate examples, Gentilin argues that ethical failures often develop gradually and become embedded within organisations before they become visible.

Central contribution: The book challenges the view that unethical behaviour is simply the result of a few dishonest individuals. Instead, it demonstrates that ethical failures usually arise from the interaction of organisational systems, leadership behaviour, incentive structures and cultural norms. When performance pressures outweigh ethical considerations, when questioning is discouraged and when governance mechanisms fail to function effectively, organisations can gradually normalise unethical behaviour. Ethical leadership therefore requires building systems that encourage integrity, openness and accountability rather than relying solely on individual character.

Why this work matters: The book broadens the discussion on ethics by moving beyond personal morality to organisational design and governance. It reminds us that responsible organisations are created not only through ethical leaders but also through cultures, systems and processes that support ethical decision-making. This perspective is particularly relevant for management education because future managers need to understand both the personal and organisational dimensions of ethical responsibility.

Lessons for curriculum reform: Management education should treat ethics as an integral part of organisational decision-making rather than as a standalone subject. Students should understand how incentives, culture, governance, leadership and organisational systems influence ethical behaviour. Greater emphasis should also be placed on ethical reasoning, responsible decision-making and recognising early warning signs before small ethical compromises develop into major organisational failures.

8. The Smartest Guys in the Room (McLean & Elkind, 2003)

What the work is about: *The Smartest Guys in the Room* recounts the rise and collapse of Enron, one of the largest corporate failures in modern business history. Based on extensive investigation, Bethany McLean and Peter Elkind describe how a company widely admired for innovation and financial success

ultimately collapsed because of accounting manipulation, excessive risk-taking, weak governance and a corporate culture that rewarded short-term performance over integrity. The book illustrates how organisational success can mask deep structural weaknesses that remain hidden until they reach a crisis.

Central contribution: The Enron story demonstrates that corporate failures rarely result from a single poor decision. Instead, they emerge from a combination of leadership failures, weak governance, flawed incentive systems, inadequate oversight and an organisational culture that gradually normalises unethical behaviour. The authors show how excessive confidence, lack of transparency and unquestioned pursuit of financial success created conditions in which unethical practices became accepted as normal business behaviour.

Why this work matters: Enron remains one of the most studied corporate failures because it illustrates how technical expertise, financial innovation and managerial intelligence cannot compensate for failures of ethics, governance and organisational culture. The lessons extend far beyond one company. The book demonstrates the importance of transparency, accountability, independent oversight and leadership that places long-term organisational integrity above short-term financial performance. It also reinforces the need for managers to recognise how organisational cultures influence individual behaviour.

Lessons for curriculum reform: The Enron experience provides a compelling case for integrating ethics, corporate governance, leadership, risk management and organisational behaviour rather than teaching them as isolated subjects. Students should understand how failures in one area can quickly spread across an organisation when systems of accountability break down. The book also highlights the importance of developing managerial judgement, encouraging constructive dissent and fostering organisational cultures that support openness, responsibility and ethical decision-making.

9. At Any Cost: Jack Welch, General Electric, and the Pursuit of Profit (O'Boyle, 1998)

What the work is about: In *At Any Cost*, Thomas F. O'Boyle examines the transformation of General Electric under Jack Welch, one of the most

influential business leaders of the late twentieth century. Drawing on extensive reporting, the book describes how Welch reshaped GE through aggressive restructuring, cost reduction, acquisitions, performance management and an unwavering emphasis on profitability. While acknowledging Welch's remarkable business achievements, O'Boyle also explores the organisational and human consequences of a management philosophy driven by relentless performance and shareholder returns.

Central contribution: The book illustrates how management philosophies centred on efficiency, financial performance and competitive success can profoundly shape organisational culture and managerial behaviour. O'Boyle shows that the pursuit of exceptional business performance often involved difficult trade-offs affecting employees, organisational stability and long-term relationships. Rather than presenting these outcomes as simple successes or failures, the book encourages readers to examine the broader consequences of management decisions and the assumptions that drive them.

Why this work matter: Although written during Jack Welch's tenure at General Electric, the issues raised remain highly relevant. The book demonstrates how influential management philosophies can shape business practice far beyond a single organisation, influencing corporate leaders, consultants and business schools around the world. Read alongside later critiques such as *The Man Who Broke Capitalism*, it provides valuable historical context for understanding the evolution of shareholder-centred management and its continuing influence on management education.

Lessons for curriculum reform: Management education should encourage students to critically evaluate influential management philosophies rather than treating them as universal models of success. Alongside studying organisational performance, students should examine the wider consequences of strategic decisions for employees, organisational culture, stakeholder relationships and long-term sustainability. Such an approach develops managers who can evaluate both the effectiveness and the broader implications of different management approaches.

10. Corporate Vices: What's Gone Wrong with Business? (Cohen, 2002)

What the work is about: In *Corporate Vices*, C. Cohen examines the behavioural and cultural patterns that contribute to repeated organisational failures. Rather than focusing on isolated incidents of misconduct, the book explores how traits such as greed, arrogance, excessive ambition, denial and short-term thinking can gradually become embedded within organisations. Cohen argues that these corporate vices influence decision-making at every level and often undermine ethical leadership, effective governance and long-term organisational performance.

Central contribution: The book demonstrates that organisational failure frequently reflects deeply rooted cultural and behavioural problems rather than isolated ethical lapses. Corporate values displayed in annual reports or mission statements have limited meaning unless they are consistently reflected in everyday decisions and organisational behaviour. Cohen therefore argues that sustainable organisations require cultures that actively reinforce integrity, accountability, humility and responsible leadership.

Why this work matters: This work reinforces an important theme emerging across the selected works—that organisational culture plays a central role in shaping managerial behaviour and business outcomes. Leadership, governance and ethical systems are undoubtedly important, but their effectiveness ultimately depends on the values that guide everyday organisational decisions. Cohen's work therefore highlights the need to examine culture as a strategic organisational resource rather than simply as a human resource issue.

Lessons for curriculum reform: Management education should give greater attention to organisational culture as a foundation for responsible management. Students should understand how culture develops, how leaders influence it and how seemingly small behavioural patterns can gradually shape organisational performance and ethical conduct. Developing managers who can build cultures based on trust, accountability and integrity is likely to be as important as developing their technical and analytical capabilities.

Taken together, the ten selected works reviewed above examine contemporary business from different perspectives, yet they converge on

several recurring concerns. Whether discussing leadership, governance, ethics, organisational culture or the purpose of business, they consistently suggest that many organisational failures are rooted not merely in technical shortcomings but in failures of judgement, responsibility and values. While these works primarily diagnose the problems confronting contemporary business, the next three selected works move beyond diagnosis to explore alternative approaches to business and management.

II. Alternative Directions for Business and Management

11. Conscious Capitalism (Mackey & Sisodia, 2013)

What the work is about: In *Conscious Capitalism*, John Mackey and Raj Sisodia present an alternative vision of business based on the belief that organisations can simultaneously create value for shareholders, employees, customers, suppliers, communities and society. Drawing upon examples from successful companies, the authors argue that business should not be viewed merely as an economic activity focused on profit, but as an institution capable of contributing to human well-being and societal progress. Profit remains important, but it is regarded as an outcome of creating value rather than the sole purpose of business.

Central contribution: The book proposes four interrelated principles: higher purpose, stakeholder orientation, conscious leadership and conscious culture. Together, these principles encourage organisations to move beyond short-term financial performance towards creating sustainable value for all stakeholders. Rather than viewing ethics and profitability as competing objectives, the authors argue that organisations with a clear purpose and strong stakeholder relationships are often better positioned to achieve long-term success.

Why this work matters: Unlike many of the earlier selected works, *Conscious Capitalism* focuses less on diagnosing problems and more on demonstrating how businesses can operate differently. It provides a constructive framework that integrates ethical responsibility, leadership and organisational performance into a coherent philosophy of management. The work therefore complements earlier critiques by offering an alternative model for responsible business.

Lessons for curriculum reform: Management education should expose students to broader perspectives on the purpose of business and encourage them to evaluate organisational success from the viewpoint of multiple stakeholders. Greater emphasis should be placed on purpose-driven leadership, stakeholder management, organisational culture and long-term value creation, enabling future managers to recognise that commercial success and societal contribution can reinforce one another.

12. Grow the Pie (Edmans, 2020)

What the work is about: In *Grow the Pie*, Alex Edmans challenges the widespread assumption that creating value for shareholders necessarily comes at the expense of other stakeholders. Drawing on extensive academic research and practical examples, he argues that businesses create greater long-term value when they invest in employees, customers, innovation, communities and the environment. Rather than dividing existing wealth, organisations should focus on expanding value for everyone.

Central contribution: Edmans demonstrates that responsible business practices and long-term financial performance are not mutually exclusive. He questions the traditional trade-off between profit and purpose and argues that organisations adopting a long-term perspective often achieve stronger and more sustainable performance. The book encourages managers to move beyond short-term financial metrics and consider how decisions influence the long-term health of both the organisation and society.

Why this work matters

The book provides an evidence-based response to the criticism that stakeholder-oriented management is inconsistent with business success. By combining rigorous research with practical examples, Edmans demonstrates that responsible management can strengthen rather than weaken organisational performance. This perspective provides an important counterbalance to earlier works that primarily emphasise corporate failures.

Lessons for curriculum reform: Management programmes should encourage students to understand long-term value creation from both financial and societal perspectives. Greater attention should be given to sustainability, stakeholder engagement, innovation, organisational purpose and responsible investment. Students should also develop the ability to evaluate business

decisions using long-term rather than exclusively short-term measures of success.

13. The Post-Corporate World (Korten, 2000)

What the work is about: In *The Post-Corporate World*, David Korten examines the broader relationship between business, society and economic development. He argues that the increasing concentration of corporate power has often weakened communities, widened inequality and encouraged economic systems that prioritise financial returns over human and environmental well-being. The book explores alternative models that place people, communities and sustainability at the centre of economic activity.

Central contribution: Korten challenges the traditional assumption that economic growth alone is an adequate measure of progress. Instead, he advocates business systems that balance economic objectives with social responsibility, democratic participation and environmental stewardship. The book therefore extends the discussion beyond individual organisations to the wider role that business should play in shaping society.

Why this work matters: Among the selected works, this book provides the broadest societal perspective. It reminds readers that management decisions influence not only organisations but also communities, economies and future generations. Although some of its proposals remain open to debate, the work encourages management educators to think beyond organisational performance and consider the broader societal purpose of business education.

Lessons for curriculum reform: Management education should help students understand the interdependence between business, society and the environment. Future managers should appreciate the wider consequences of organisational decisions and develop the ability to balance economic, social and environmental objectives. Such an approach prepares graduates to lead organisations responsibly within an increasingly interconnected world.

What the Selected Works Reveal

The thirteen selected works examined in this study differ considerably in their focus and perspective. Some examine leadership, others corporate governance, ethics, organisational culture, capitalism or management education. They were also written independently over different periods and in response to different business contexts.

Yet, when considered collectively, they reveal a remarkable convergence of ideas. Rather than pointing to isolated organisational failures, they consistently highlight deeper concerns about managerial judgement, organisational responsibility and the broader purpose of business. These recurring themes provide a valuable foundation for rethinking business management curriculum.

Developing Managers with Sound Judgement

One of the strongest themes emerging from the selected works is that technical competence alone is insufficient for effective management. Friedman argues that leaders require emotional maturity and the ability to exercise independent judgement under pressure. McDonald questions whether management education has overemphasised analytical ability while giving insufficient attention to professional identity and responsibility. Winget emphasises personal responsibility, while Gentilin and McLean demonstrate how technically competent organisations can nevertheless experience profound ethical failures. Collectively, these works suggest that management education should move beyond preparing students simply to analyse business problems towards developing judgement, critical thinking, self-awareness and responsible decision-making. These capabilities are not alternatives to technical competence; rather, they enable managers to apply technical knowledge wisely and responsibly.

Building Responsible Organisations

A second recurring theme concerns the way organisations are governed and managed. Gillespie highlights the importance of effective corporate governance, while Gentilin, Cohen and McLean demonstrate how failures in governance, organisational culture, incentives and accountability can gradually normalise unethical behaviour. O'Boyle and Gelles, writing more than two decades apart, both question management philosophies that place overwhelming emphasis on financial performance while drawing attention to their wider organisational and societal consequences. Together, these works show that responsible organisations are created not only through capable leaders but also through governance structures, organisational cultures and management systems that encourage openness, accountability and ethical conduct. Future managers therefore need a deeper understanding of organisations as integrated systems in which leadership, governance, culture and decision-making are closely interconnected.

Redefining the Purpose of Business

The final theme extends beyond individual organisations to the wider role of business in society. O'Boyle, Mackey and Sisodia, Edmans and Korten each argue, from different perspectives, that organisations should create value not only for shareholders but also for employees, customers, communities and society. Rather than presenting profitability and responsibility as competing objectives, these works suggest that long-term organisational success depends upon balancing financial performance with stakeholder interests, ethical conduct and sustainable value creation. Collectively, they encourage a broader understanding of business as a social institution whose responsibilities extend beyond economic performance. This perspective has important implications for management education, particularly in preparing future managers to balance commercial success with wider organisational and societal responsibilities.

Towards a Rebalanced Business Management Curriculum

The selected works reviewed in this study do not suggest that business management curricula have become irrelevant or that functional disciplines such as finance, marketing, operations, analytics and strategy should receive less attention. On the contrary, these areas remain fundamental to management education. The recurring concern across the selected works is that, while business schools have continually expanded the technical knowledge and analytical capabilities of their graduates, relatively less attention has been devoted to developing managerial judgement, organisational responsibility and a broader understanding of the purpose of business. The evidence presented in this paper therefore points not towards replacing the existing curriculum, but towards ***rebalancing*** it. Rather than viewing technical competence and responsible management as competing priorities, business schools should seek to integrate them more effectively. Future managers will continue to require strong analytical skills and functional expertise.

Equally, however, they must develop the judgement to apply these capabilities responsibly, the ability to understand organisations as interconnected systems, and the wisdom to balance commercial success with wider organisational and societal responsibilities. This shift requires thinking beyond the addition of individual subjects or standalone courses on ethics or sustainability. The selected works consistently demonstrate that many business failures arise not because managers lack technical knowledge, but because they fail to exercise sound judgement, recognise ethical dilemmas, appreciate long-term consequences or understand the organisational systems within which decisions are made. Curriculum reform should therefore focus

not only on *what managers know,* but also on *how they think, how they decide and how they lead.* One possible framework emerging from the present study is outlined in Table 1.

Table 1. Towards a Rebalanced Business Management Curriculum

Traditional emphasis	Rebalanced emphasis
Technical competence	Technical competence integrated with managerial judgement
Functional expertise	Systems thinking across organisational functions
Analytical problem solving	Ethical reasoning and responsible decision-making
Shareholder value	Stakeholder value creation
Short-term performance	Long-term value creation
Individual managerial success	Organisational responsibility and accountability
Functional leadership	Purpose-driven and values-based leadership

The framework should not be interpreted as replacing one set of priorities with another. Rather, it suggests broadening the capabilities that management education seeks to develop. Technical competence remains indispensable, but it is most effective when complemented by sound judgement, ethical reasoning and an appreciation of the wider consequences of managerial decisions. In this sense, the proposed framework represents an evolution of management education rather than a departure from it.

The framework also has implications for the way management is taught. Many of the capabilities identified in the selected works are unlikely to develop through conventional classroom instruction alone. They require learning experiences that encourage reflection, discussion, critical analysis and engagement with complex organisational situations where there are no simple right or wrong answers. Greater use of interdisciplinary learning, longitudinal case discussions, governance simulations, ethical dilemmas and reflective exercises may therefore complement existing approaches and strengthen the development of managerial judgement. The thirteen selected works were written independently, over different periods and from diverse perspectives. Yet they repeatedly converge on remarkably similar concerns relating to leadership, governance, ethics, organisational culture, stakeholder relationships and the broader purpose of business.

This convergence suggests that these concerns are not isolated observations but persistent challenges that deserve greater attention in management education. Business schools have responded effectively to technological change by continually updating curriculum content. The next stage of curriculum reform may be equally important: preparing managers who not only possess the knowledge and skills to succeed, but also the judgement and responsibility to ensure that future business does not repeat the mistakes of the past. As with any conceptual study, the proposed framework is based on a purposive selection of influential works and is intended to stimulate discussion rather than provide an exhaustive review of the literature. Future research may examine a wider body of literature, empirically validate the framework proposed in this study and explore its application across different management programmes and institutional contexts.

References

AACSB International. (2020). *2020 Guiding Principles and Standards for Business Accreditation*. AACSB International.

American Accounting Association. (1961). Report of the Committee on the Study of the Ford and Carnegie Foundation Reports. *The Accounting Review,* 36(2), 191-196.

Bellary, S., Sarkar, S., & Mishra, A. N. (2025). *Generative artificial intelligence for management education: Applications, benefits, challenges and future research directions*. *International Journal of Educational Management, 39*(5), 1217–1239. https://doi.org/10.1108/IJEM-10-2024-0653

Cohen, C. (2002). *Corporate Vices: What's Gone Wrong with Business?* Capstone Publishing.

Datar, S. M., Garvin, D. A., & Cullen, P. G. (2010). *Rethinking the MBA: Business Education at Crossroads*. Harvard Business Press.

De Jong, D. (2022). *Nazi Billionaires: The Dark History of Hitler's Moneyed Elite.* William Collins.

Denning, S. (2018, May 27). Why Today's Business Schools Teach Yesterday's Expertise. *Forbes* .

Edmans, A. (2020). *Grow the Pie: How Great Companies Deliver Both Purpose and Profit* . Cambridge University Press.

Friedman, E. H. (2007). *A Failure of Nerve: Leadership in the Age of the Quick Fix.* Seabury Books.

Gelles, D. (2020). *The Man Who Broke Capitalism: The Life and Times of Jack Welch.* Penguin Portfolio.

Gentilin, D. (2024). *The Origins of Ethical Failures: Lessons for Leaders* (2nd ed.). Routledge.

Gillespie, J. (2016). *Money for Nothing: How the Failure of Corporate Boards Is Ruining American Business and Costing Us Trillions.* Crown Business.

Jain, A., Naik, K. R., Kakade, K., Bhanot, S., & Kulkarni, S. C. (2025). *Reimagining management education: Navigating the shift to Education 4.0 in the digital era. The International Journal of Management Education, 23*(2), 101182. https://doi.org/10.1016/j.ijme.2025.101182

Mackey, J., & Sisodia, R. (2013). *Conscious Capitalism: Liberating the Heroic Spirit of Business*. Harvard Business Review Press.

McDonald, D. (2017). *The Golden Passport: Harvard Business School, the Limits of Capitalism, and the Moral Failure of the MBA Elite.* Harper Business.

McLean, B., & Elkind, P. (2003). *The Smartest Guys in the Room: The Amazing Rise and Scandalous Fall of Enron*. Portfolio

Morsing, M. (2022). PRME – Principles for Responsible Management Education: Towards transforming leadership education. In M. Morsing (Ed.), *Responsible Management Education: The PRME Global Movement* (pp. 3–12). Routledge. https://doi.org/10.4324/9781003186311-2

O'Boyle, T. F. (1998). *At Any Cost: Jack Welch, General Electric, and the Pursuit of Profit.* New York: Alfred A. Knopf.

Winget, L. (2009). *What's Wrong with Damn Near Everything: How the Collapse of Core Values Is Destroying Us and How to Fix It.* Wiley.

Role of Acceptance and Flexibility in Enhancing Tolerance of Uncertainty: A Comprehensive Review

Ritika Sharma, Madhuri Gehi***

Abstract

This integrated analysis examines how acceptance and flexibility might enhance tolerance of uncertainty in the domains of mental health, education, interpersonal relationships, healthcare, work, and growth. A narrative-integrative approach was used to systematically locate and synthesise empirical studies, theoretical articles, reviews, and intervention-based research from the literature on psychology, healthcare, mindfulness, and behavioural science. The content was thematically analysed to identify conceptual connections, significant trends, and research gaps. The findings indicate that intolerance of ambiguity is a transdiagnostic vulnerability factor associated with anxiety, worry, stress, depression, emotional dysregulation, and maladaptive decision-making. However, acceptance and flexibility consistently manifest as protective mechanisms that enhance resilience, adaptive coping, emotional regulation, psychological well-being, and interpersonal functioning. The review also emphasises the increasing importance of mindfulness-based therapies like Acceptance and Commitment Therapy (ACT). In general, processes that are flexibility-oriented and acceptance-based greatly increase tolerance of uncertainty. Nevertheless, the literature is still disjointed, underscoring the necessity of cross-cultural, integrative, and longitudinal studies.

Keywords: Adaptive Coping, Emotional Regulation, Mental Health, Mindfulness, Psychological Distress.

Introduction

Uncertainty is an essential feature of human life, and it has a growing impact on psychological functioning in personal, educational, occupational, interpersonal, and healthcare settings. Individuals are frequently exposed to ambiguous and unpredictable events, which have an impact on emotional regulation, coping, decision-

* *Assistant Professor (Psychology), Acropolis Institute of Management Studies and Research, Indore, M.P.*

** *Assistant Professor, IPS Academy, Institute of Business Management and Research, Indore, M.P.*

making, and general well-being. While some people adjust well, others experience worry, tension, avoidance, and psychological distress, emphasising the necessity of discovering systems that enhance adaptive functioning under uncertainty. Acceptance and flexibility have emerged as important protective mechanisms in this situation. Acceptance entails taking an open and nonjudgmental approach to thoughts and feelings, without avoiding them.

Flexibility, on the other hand, refers to the ability to remain present while adapting ideas and behaviours in response to situational demands and personal beliefs. Both concepts are fundamental to Acceptance and Commitment Therapy (ACT) and mindfulness-based therapies. Research on tolerance of uncertainty has expanded dramatically, notably in the context of anxiety, depression, stress, and maladaptive coping. However, existing literature focuses on intolerance of uncertainty as a vulnerability factor, often studying acceptance, flexibility, and uncertainty separately. As a result, the purpose of this study is to investigate the impact of acceptance and flexibility in improving tolerance of uncertainty across mental health, educational, interpersonal, healthcare, occupational, and developmental domains, as well as to identify important trends, gaps, and future research objectives.

Theoretical Framework

Acceptance: From an evolutionary standpoint, acceptance is regarded as a fundamental human trait associated with survival, social connectivity, and interpersonal functioning. Acceptance and Commitment Therapy (ACT) defines it as taking an open, nonjudgmental approach to internal experiences, including thoughts, emotions, and bodily sensations, without attempting to avoid, deny, or control them (Hayes et al., 2012; Lindsay & Creswell, 2017). It demonstrates a willingness to be present with experiences as they unfold and evolve spontaneously. Acceptance reduces experience avoidance and is connected to better emotional regulation, adaptive coping, psychological well-being, and resilience in both clinical and non-clinical groups. Overall, it acts as an adaptive mechanism, promoting flexibility and optimal functioning across many life domains.

Flexibility: Flexibility is an essential component of adaptive functioning and psychological well-being, defined as the ability to adjust to changing situational demands, alter cognitive perspectives, and manage thoughts, emotions, and behaviours in accordance with personal values (Kashdan & Rottenberg, 2010). It is characterised by openness to experience, present-moment awareness, and flexible responses rather than rigid or habitual patterns of behaviour and cognition. Flexibility is defined in Acceptance and Commitment Therapy (ACT) as the ability to maintain contact with current experiences while participating in value-consistent behaviours in the face of

unpleasant internal feelings (Hayes et al., 2012). Acceptance, cognitive defusion, mindfulness, value definition, and committed action are all interconnected processes (Kashdan, 2011). Flexibility is consistently associated with improved emotional regulation, resilience, adaptive coping, interpersonal functioning, and well-being, whereas inflexibility is associated with anxiety, stress, emotional distress, and maladaptive functioning in various psychological and social domains.

Tolerance of Uncertainty: Uncertainty is an intrinsic element of life, although people respond differently to ambiguous or unpredictable situations. Intolerance of uncertainty (IU) is a dispositional tendency to perceive and react negatively to unknown outcomes, as evidenced by cognitive, emotional, and behavioural suffering in reaction to ambiguity (Freeston et al., 1994; Carleton, 2016). It is widely recognised as a cross-diagnostic susceptibility factor linked to anxiety, worry, stress, depression, emotional dysregulation, and maladaptive coping. Tolerance of uncertainty, on the other hand, represents the ability to maintain composure, adaptability, and functionality in the face of incomplete or confusing information. It entails continuing to work effectively in the face of uncertainty while managing the related discomfort. While higher tolerance is linked to resilience, adaptive coping, emotional regulation, and enhanced functioning in academic, healthcare, occupational, and interpersonal domains, high IU is linked to threat appraisal, avoidance behaviour, poor decision-making, and psychological distress. Acceptance, adaptability, curiosity, and openness are important factors that support adaptive responses to uncertainty, according to recent viewpoints.

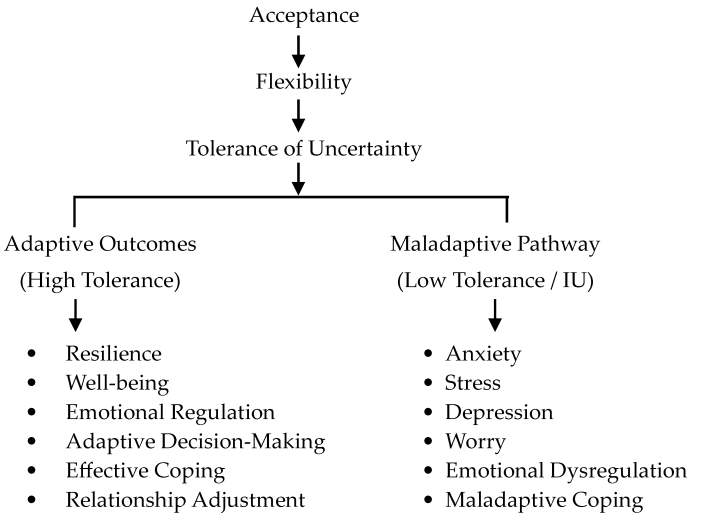


Figure 1: Proposed Conceptual Framework of Acceptance, Flexibility, and Tolerance of Uncertainty

Rationale of the Study: In contemporary life, individuals increasingly face uncertainty across educational, interpersonal, occupational, healthcare, and social domains, often resulting in anxiety, stress, worry, emotional distress, and maladaptive coping. Limited acceptance of difficult experiences further contributes to psychological difficulties, while flexibility supports adaptive coping and resilience under uncertain conditions. Existing literature identifies intolerance of uncertainty (IU) as a vulnerability factor, whereas acceptance and flexibility are associated with emotional regulation, well-being, and healthier functioning. ACT- and mindfulness-based approaches further emphasize their importance in managing uncertainty. However, most studies focus on healthcare and student populations and examine these constructs separately, with limited integrative and Indian-context research. Therefore, the present review aims to develop an integrated understanding of acceptance, flexibility, and tolerance of uncertainty across multiple life domains while identifying key trends and research gaps.

Objectives of the Study

1. To review literature on acceptance, flexibility, and tolerance of uncertainty.
2. To examine the relationship among these constructs across different psychological and life domains.
3. To identify major research trends, conceptual relationships, and associated variables within existing literature.
4. To identify research gaps and underexplored areas for future research.

Method

Review Design: In order to investigate how acceptance and flexibility can improve tolerance of uncertainty in a variety of psychological and life domains, the current study used a narrative-integrative literature review methodology. In addition to highlighting new trends, research gaps, and future directions, the review sought to establish conceptual links among the constructs and synthesise existing theoretical, empirical, and review-based data.

Search Strategy and Data Sources: Major academic databases and scholarly search platforms, such as Google Scholar, ResearchGate, SpringerLink, Frontiers, MDPI, BMC, PsycINFO, Web of Science, and Elsevier, were used in a methodical literature search. Studies published between January 2019 and December 2025 were the main focus of the search. Tolerance of uncertainty, intolerance of uncertainty, flexibility, psychological

flexibility, acceptance, mindfulness, Acceptance and Commitment Therapy (ACT), emotional regulation, resilience, adaptive coping, behavioural flexibility, and anxiety and uncertainty were among the keywords that were combined to guide the search.

Inclusion and Exclusion Criteria

Studies were included if they:

- Examined acceptance, flexibility, intolerance/tolerance of uncertainty, or closely related constructs.
- Were empirical studies, systematic reviews, meta-analyses, longitudinal studies, experimental studies, or conceptual/theoretical papers.
- Investigated psychological, educational, interpersonal, healthcare, occupational, or behavioral outcomes.
- Were published in peer-reviewed journals and available in full text.
- Provided sufficient methodological and conceptual information relevant to the objectives of the review.

Studies were excluded if they:

- Had limited relevance to the core constructs.
- Focused primarily on unrelated psychiatric or medical conditions.
- Presented repetitive findings without additional conceptual contribution.
- Lacked adequate methodological detail.
- Were inaccessible, non-peer-reviewed, or highly population-specific without broader theoretical relevance.

Screening and Selection Procedure: Forty-five studies were found in the first search. Studies were assessed in relation to the inclusion and exclusion criteria after duplicate records were eliminated and titles and abstracts were screened for relevance. Due to methodological flaws, conceptual repetition, low integration with the main notions, or limited relevance, a total of 24 studies were eliminated. As a result, 21 studies were kept for a thorough analysis and synthesis.

Data Analysis: Mental health outcomes, psychological processes, cognitive and behavioural functioning, educational and developmental factors, interpersonal relationships, healthcare contexts, and positive psychological outcomes are among

the major themes that emerged from the critical review of the chosen studies. Recurring patterns, conceptual connections, methodological trends, research gaps, and indications for further study were all found using thematic analysis.

Keyword Analysis: The most common terms in the evaluated literature, according to keyword analysis, were flexibility and intolerance of uncertainty. Acceptance, mindfulness, anxiety, emotional control, resilience, ACT, coping, and well-being were additionally frequently used keywords. An increasing movement from psychopathology-focused research toward adaptive and resilience-oriented perspectives on uncertainty was mirrored in emerging topics such as behavioural flexibility, decision-making, flourishing, and future anxiety.

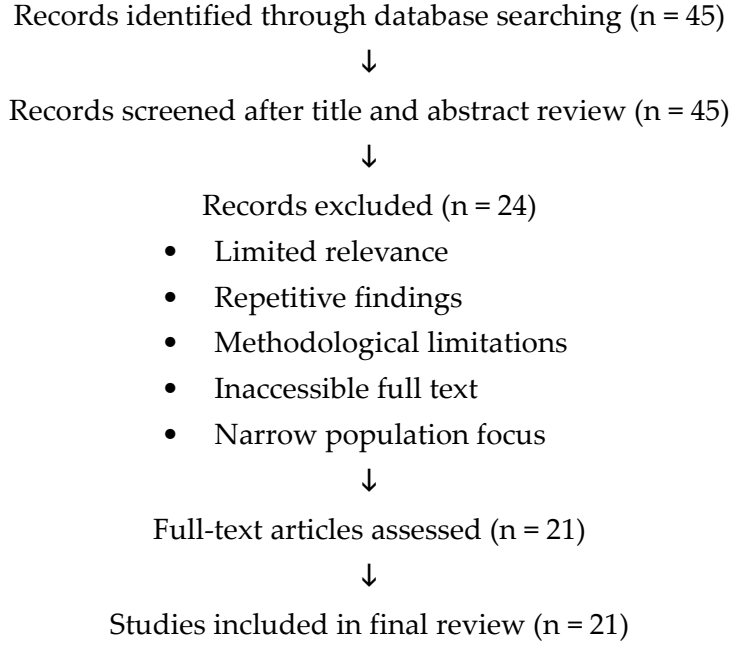


Figure 2: Literature Search and Study Selection Process

Applications across various domains

Emotional Regulation and Adaptive Coping in Healthcare

Han and Hofmann (2025) did a qualitative review of healthcare to create a normative model of tolerance of uncertainty among medical practitioners. The study, published in Theoretical Medicine and Bioethics, defined tolerance of uncertainty as both positive and negative psychological responses to the awareness of partial knowledge. The

paradigm emphasises flexibility as the ability to adjust cognitive, emotional, and behavioural reactions by contemplating several viable actions rather than a single response. It also emphasises flexibility, humility, courage, curiosity, and compassion as essential components of successful uncertainty management. The authors suggest that present definitions over-emphasise endurance, which limits their conceptual scope, and instead propose adaptation and moral virtues as important mechanisms. The review also identifies recurrent inconsistencies in defining tolerance of uncertainty and fills gaps in characterising its cognitive, emotional, and behavioural manifestations. McMillan and Soundy (2025) used a PRISMA-guided social constructivist meta-ethnography to investigate the link between tolerance of uncertainty, emotion control, and hope in people with persistent low back pain.

Intolerance of uncertainty was defined as the inability to tolerate discomfort caused by insufficient or confusing information, which relates to anxiety, negative assessment, and avoidance behaviours. The findings revealed a substantial association between tolerance of uncertainty, emotion regulation, and hope, with higher intolerance and lower hope connected to cognitive rigidity, maladaptive emotion regulation, and increased psychological discomfort. The study also revealed that cognitive flexibility could act as a protective factor, promoting adaptive reappraisal and more effective emotional response. However, the authors observed that the findings had limited applicability beyond persistent low back pain groups. Dennis et al. (2021) did a normative analysis in the United States to assess physicians' tolerance for ambiguity in their professional development. The study, published in the Journal of General Internal Medicine, defined it as comfort with awareness of clinical ignorance and emphasized its dual nature, noting that both high and low tolerance can have adaptive and maladaptive consequences. The authors emphasized the importance of characteristics like courage, curiosity, and diligence in successfully managing clinical uncertainty.

Peek et al. (2025) examined UK foundation doctors and found that higher tolerance of uncertainty significantly predicted greater thriving, well-being, and performance during professional transition, even after controlling for stress and personal background factors. These findings, taken together, show tolerance of uncertainty as a crucial driver of adaptive performance in healthcare, as well as its developmental importance and the necessity for integration with larger psychological frameworks. Patel et al. (2022) conducted a scoping assessment of strategies for improving tolerance of uncertainty among UK medical students. The study defined uncertainty as the subjective sense of not knowing what to think, feel, or do in unclear clinical settings.

The findings of 24 studies revealed that educational interventions, such as simulation, reflective practice, and problem-based learning, generally improved tolerance of uncertainty, though links to broader psychological constructs such as acceptance and flexibility remained unexplored.

Together, these results imply that tolerance of uncertainty is an adaptive process including flexibility, emotional control, curiosity, and resilience rather than just the capacity to tolerate ambiguity. In contrast to intolerance, which was connected to cognitive rigidity, avoidance, and emotional discomfort, higher tolerance of uncertainty was consistently linked to improved well-being, professional competence, adaptive coping, and psychological adjustment across healthcare contexts. The results underscore the potential contribution of procedures based on acceptance and flexibility in facilitating successful reactions to uncertainty in clinical and professional settings.

Marital Distress and Mindfulness

Altan et al. (2024) investigated whether mindfulness played a moderating influence in the connection between intolerance of uncertainty (IU) and psychological discomfort among Turkish university students. Higher IU was found to be associated with increased depression and anxiety, but mindfulness was linked to lower symptom levels. According to moderation analysis, mindfulness buffered the influence of IU on depression but not anxiety, implying that short-term protective effects differ across outcomes. Brendan W. et al. (2024) investigated IU and behavioural flexibility using a serial reversal learning test. Higher IU, particularly inhibitory IU, was associated with improved responsiveness to shifting reward contexts, increased accuracy, and decreased perseverative behaviour, implying that IU may aid in adaptive updating in dynamic situations.

Overall, the work refutes simply maladaptive interpretations of IU, highlighting its possible involvement in context-dependent behavioural flexibility. Kalaycý and Aydýn (2023) studied IU, flexibility, and worry in young individuals transferring from university to employment. The findings revealed that higher IU was substantially connected with increased worry, while flexibility emerged as a critical protective factor. IU also substantially predicted worry, emphasizing its importance in emotional suffering throughout life transitions, with flexibility facilitating adaptive coping under uncertainty.

Nallepalli and Murugesan (2025) investigated the role of flexibility in increasing marital resilience in India using an Acceptance and Commitment Therapy (ACT) case study

approach. To reduce experience avoidance and increase relational functioning, multimodal evaluation and a 16-session intervention were used, along with ACT processes such as cognitive defusion, acceptance, present-moment awareness, values clarity, and committed action. The findings revealed significant gains in flexibility, emotional intimacy, and conflict resolution, supporting ACT as a culturally relevant therapy for marital distress, despite the short follow-up and absence of broader systemic analysis. Safa et al. (2024) looked at flexibility, acceptance, and commitment as determinants of marital adjustment among Iranian couples. Standardized assessments showed that all three constructs significantly contributed to marital adjustment, with acceptance and commitment having higher predictive impacts than flexibility. Flexibility related to improved emotional regulation, adaptive communication, and relational satisfaction, whereas inflexibility and experiential avoidance were linked to marital conflict and dissatisfaction.

The study emphasized acceptance-based processes as important elements in maintaining marital well-being, but it also noted limits in sampling and contextual generalizability. These results show the intricate interplay between intolerance of ambiguity, mindfulness, acceptance, and flexibility in determining emotional and interpersonal outcomes. While intolerance of uncertainty was consistently linked to distress, worry, and maladaptive adjustment, mindfulness, acceptance, and flexibility emerged as protective processes that promoted emotional regulation, adaptive coping, behavioural adaptability, and interpersonal functioning. Across developmental and relational contexts, the findings indicate that flexibility- and acceptance-based processes may mitigate the negative impacts of uncertainty and promote resilience, well-being, and improved adjustment to life transitions and interpersonal obstacles.

Social Functioning in Clinical, Behavioural, and Interpersonal Contexts

Latella et al. (2025) conducted a systematic study (2014-2024) using PRISMA guidelines to investigate the efficacy of Acceptance and Commitment Therapy (ACT) in improving social functioning among adult mental patients. Acceptance was defined as a nonjudgmental and receptive approach to internal events, with flexibility highlighted as a major change process. The results indicated that ACT may improve social functioning in psychiatric populations; nevertheless, strong conclusions were limited due to diagnostic heterogeneity, small sample sizes, and methodological bias, emphasizing the need for more rigorous large-scale trials. Hoffmann, Schröder-Abé, and Ewert (2025) studied acceptance and monitoring of daily affective stress reactivity in healthy people using ecological momentary assessment. Acceptance is defined as nonjudgmental, nonreactive awareness of current experiences and was linked to lower

emotional reactivity to daily stress, but excessive monitoring increased stress reactivity. The findings highlight acceptance as a protective element in emotional regulation and stress buffering while also emphasizing the need for more research into its multidimensional character and state-level changes across settings.

Mrazek et al. (2024) provided a conceptual refinement of acceptance within ACT, establishing four interrelated components: awareness, allowing, nonjudgment, and non-attachment. The study emphasized acceptance as an alternative to experiential avoidance, as well as its multidimensional aspect, which applies as both a state and a trait, boosting operational clarity for future research. Bordieri (2021) presented a thorough evidence assessment of Acceptance and Commitment Therapy (ACT), combining findings from 375 randomized controlled trials and over 60 systematic reviews and meta-analyses. Acceptance was characterized as a nonjudgmental, open, and flexible attitude toward current experiences, and it was found to be a key mechanism in ACT that minimizes experiential avoidance and improves psychological adaptability across clinical and behavioural domains. Rosales-Villacrés et al. (2021) conducted a randomized controlled experiment with young adults to assess the effectiveness of a mindfulness and acceptance-based intervention. They discovered increases in psychological well-being, emotional regulation, and intimate relationship functioning. The findings also validated the effect of ACT in improving flexibility and adaptive interpersonal outcomes, while suggesting larger contextual studies in future research.

This research stresses acceptance and flexibility as key factors that underpin adaptive social, emotional, and interpersonal functioning. Acceptance has continuously been identified as a protective feature related to reduced stress reactivity, lower experiential avoidance, increased emotional regulation, and improved relationship functioning in clinical, behavioural, and non-clinical settings. The findings lend more support to ACT and mindfulness-based frameworks for enhancing psychological adaptation and social well-being, while emphasizing the need for greater methodological rigour and broader contextual applications in future research.

Developmental Stages and Educational Setting

Sakiko et al. (2024) investigated high IU, or the tendency to react negatively at cognitive, affective, and behavioural levels in response to uncertainty, as a transdiagnostic risk factor for mental health disorders. IU changes with growth. The dual-process framework of ageing supports the decrease in IU from maturity to old age, implying that older people handle uncontrollability well because they are accustomed to

responding to functional losses such as cognitive and health deterioration. Thus, low IU levels in elderly people may contribute to their relatively good mental health during COVID-19. Okayama (2024) investigated intolerance of uncertainty (IU) and psychological flexibility (PF) as predictors of mental health over the lifespan using data from the COVID-19 Risks over the Lifespan (CORAL) cohort (N = 2,280; ages 11-89) obtained during the pandemic. IU was characterized by a tendency to react negatively to uncertainty at the cognitive, emotional, and behavioural levels, whereas PF was defined as the ability to accept and adapt thoughts, emotions, and behaviours in changing settings. The findings showed that adolescents had higher IU and lower PF than adults and older people, with IU peaking in late adolescence. However, IU did not significantly account for age variations in anxiety or depression, but PF was found to be a better protective factor against anxiety, especially among adults. Overall, the findings show flexibility as a critical resilience element for mental health throughout developmental stages during times of high uncertainty, such as the COVID-19 pandemic.

Turgut and Soyer (2026) explored how flexibility and IU affected university students' decision-making methods. The findings revealed that flexibility, specifically values-based action, present-moment awareness, and cognitive defusion, predicted rational decision-making, whereas IU-related future worry had a detrimental impact on adaptive decision processes. Overall, flexibility promoted adaptive decision-making, while an IU impairs cognitive functioning in the face of perceived ambiguity. Drawing on attachment theory and interpersonal acceptance–rejection theory,

Stefanova (2023) examined ideas of interpersonal acceptance in educational settings. According to this theory, acceptance is a basic human need with evolutionary importance that is essential for creating supportive learning environments, good teacher-student interactions, and the academic and personal growth of students. Its relationship between flexibility and uncertainty-related processes, however, has not received enough attention. Among vocational high school students, Rahmanian et al. (2019) investigated the mediating function of intolerance of uncertainty (IU) in the association between flexibility and future anxiety. The findings showed that IU was positively correlated with future anxiety and flexibility was adversely correlated with IU. Subsequent investigation revealed that IU mitigated this association to some extent, indicating that flexibility lowers intolerance for uncertainty, thereby reducing future-oriented worry.

These studies stress the developmental and educational importance of intolerance of uncertainty, flexibility, and acceptance. Higher intolerance of uncertainty was consistently associated with future anxiety, impaired decision-making, and psychological distress in adolescence, young adulthood, and educational settings, whereas flexibility emerged as a key protective factor supporting adaptive coping, resilience, and rational decision-making. The findings also show that acceptance-based processes may aid in healthy adjustment throughout developmental transitions and educational hurdles, albeit their integration with uncertainty-related dimensions is still relatively unexplored in current research.

Results and Analysis

Overview of Selected Studies

The literature on acceptance, adaptability, and tolerance of uncertainty in the clinical, medical, educational, developmental, and psychosocial domains that was published between 2019 and 2025 was included in this review. There was little longitudinal, experimental, or intervention-based research, and the majority of studies employed cross-sectional quantitative designs. Results consistently demonstrated that while acceptance and flexibility were associated with resilience, adaptive coping, emotional regulation, and psychological well-being, intolerance of uncertainty was associated with anxiety, stress, depression, emotional dysregulation, and maladaptive coping. One important process that supports adjustment in the face of uncertainty is flexibility. Integrative theoretical models that combine acceptance, flexibility, and tolerance of uncertainty are still few, especially in Indian and other non-Western cultures, despite the growing emphasis on ACT and mindfulness-based techniques.

Distribution of Studies Across Domains and Journal Types

Clinical psychology, healthcare, and behavioural science journals are the main venues for research on acceptance, flexibility, and tolerance of uncertainty. While healthcare-focused journals like BMC Medical Education and Journal of General Internal Medicine have concentrated on uncertainty processes among medical professionals and trainees, publications like Frontiers in Psychology and Mindfulness have thoroughly examined uncertainty-related distress, emotional regulation, and resilience. Research on pandemics and cross-populations has also benefited from MDPI publishing. While acceptance and flexibility were linked to adaptive emotional and behavioural functioning, intolerance of uncertainty consistently surfaced as a vulnerability factor associated with emotional discomfort and maladaptive coping across investigations.

Interpersonal, professional, and community-based situations, however, are yet largely unexplored.

Methodological Trends and Theoretical Developments

Long-term developmental interpretation and causal understanding are limited by the predominance of cross-sectional and correlational research in the examined literature. There are still few longitudinal, experimental, and mixed-method techniques, and the majority of studies mostly use self-report measures. Theoretically, the research now recognizes acceptance and flexibility as resilience-based and adaptive regulatory mechanisms rather than primarily seeing intolerance of uncertainty as a vulnerability element. A developing process-oriented and strengths-based viewpoint in psychological research is reflected in the increased emphasis on adaptive engagement with uncertainty rather than avoidance in ACT- and mindfulness-based frameworks.

Classification Based on Variables and Populations Studied

The evaluated research emphasized the transdiagnostic significance of uncertainty-related processes and covered a variety of areas, with a primary focus on mental health outcomes like anxiety, depression, stress, and emotional dysregulation. Within ACT-based frameworks, numerous studies also looked at acceptance, mindfulness, experiential avoidance, and emotional regulation. Cognitive-behavioural functioning, educational adjustment, interpersonal interactions, healthcare-related uncertainty, and positive outcomes including resilience and well-being were among the other domains. While acceptance-based strategies improved emotional regulation and coping, flexibility consistently supported adaptive functioning across domains. In clinical, healthcare, student, and general adult samples, there was a high correlation between intolerance of uncertainty and psychological distress. Overall, the results show how broadly applicable these categories are, while pointing to the paucity of studies in vocational, community-based, and culturally diverse populations.

Research Gaps

Even though acceptance, flexibility, and tolerance of uncertainty have been extensively researched, the majority of studies only look at these concepts separately or in small combinations. As a result, there are few comprehensive theoretical frameworks that explain how flexibility and acceptance operate together to improve tolerance of uncertainty in a variety of life domains. Cross-sectional and correlational research designs predominate in the literature currently in publication, which restricts the ability to analyze causality and comprehend changes in development over time. Furthermore, a strong dependence on self-report measures raises questions about ecological validity

and common method bias. The use of longitudinal, experimental, intervention-based, and real-world assessment methods is still relatively low. University students, medical professionals, and clinical populations have been the main subjects of research. Workplace groups, community samples, older people, and people going through significant life transitions have received relatively less study, which limits the findings' wider relevance.

Most of the evidence comes from Western populations, with very few studies undertaken in Indian and other non-Western cultural contexts. This limits the cross-cultural applicability of existing findings and emphasizes the importance of culturally sensitive investigations. Current research is mostly focused on clinical, healthcare, and educational settings. Despite their practical importance, interpersonal connections, family functioning, professional adaptation, community resilience, and everyday life uncertainty have received relatively little consideration. The literature is mostly concerned with maladaptive effects such as anxiety, stress, worry, depression, and emotional dysregulation. Positive and growth-oriented outcomes, such as resilience, flourishing, meaning-making, thriving, adaptive decision-making, and personal progress in the face of uncertainty, have received very little attention.

Scope for Future Research

Despite growing interest in acceptance, flexibility, and tolerance of uncertainty, several important gaps remain in the literature. Existing research largely examines these constructs independently or in limited combinations, highlighting the need for integrated theoretical frameworks that explain how acceptance and flexibility jointly contribute to tolerance of uncertainty across different contexts. The evidence base is also dominated by cross-sectional and correlational studies, limiting causal interpretation and understanding of developmental changes over time. Future research should therefore employ longitudinal, experimental, and intervention-based designs to examine the long-term interactions among acceptance, flexibility, tolerance of uncertainty, and mindfulness. Another important limitation is the heavy reliance on self-report measures, which may restrict ecological validity. Future studies should incorporate behavioral, observational, neurocognitive, and ecologically valid approaches to better understand real-world responses to uncertainty.

Furthermore, the literature focuses primarily on Western populations and clinical, healthcare, and student samples, with little research conducted in occupational, interpersonal, community, and Indian contexts. To promote generalizability and contextual relevance, greater emphasis must be placed on culturally diverse and under-

represented populations. Finally, most research focuses on maladaptive effects such as anxiety, stress, worry, depression, and emotional dysregulation. Future study should look beyond pathology and into positive adaptive outcomes like resilience, flourishing, psychological growth, meaning-making, adaptive decision-making, thriving, and behavioural flexibility. Such efforts would help us gain a better grasp of how acceptance and flexibility support adaptive functioning in the face of uncertainty across various life domains.

Limitations and Suggestions: Due to disparities in theories, terminology, and evaluation techniques, the existing research on acceptance, flexibility, and tolerance of uncertainty is conceptually fragmented. Interpersonal, professional, community, and everyday life contexts receive less attention than healthcare, clinical, and student groups. In terms of methodology, most research uses cross-sectional, correlational, and self-report designs, which restrict practical applicability and causal understanding. There is also a dearth of Indian and cross-cultural research in the literature, which is mostly focused on the West. Additionally, whereas beneficial adaptation processes are comparatively understudied, most of the research focuses on detrimental impacts like stress and anxiety. Future studies should expand to encompass a variety of cultural and real-world contexts and develop integrated frameworks that incorporate acceptance, flexibility, and tolerance for ambiguity. We must use more longitudinal, experimental, behavioural, and ecologically valid approaches to enhance causal and contextual understanding. Additionally, researchers ought to concentrate on adaptive outcomes such as psychological growth, resilience, thriving, and meaning making.

Conclusion

This review examined research on uncertainty acceptance, flexibility, and tolerance in psychological, educational, interpersonal, healthcare, occupational, and developmental contexts. The reviewed evidence consistently demonstrates that intolerance of uncertainty is associated with anxiety, stress, depression, worry, emotional dysregulation, and maladaptive coping, even though acceptance and flexibility are essential protective mechanisms that support resilience, emotional regulation, adaptive coping, psychological well-being, and successful adjustment to uncertainty. The review also highlights important conceptual relationships between these categories in a range of life domains. By reducing avoidance, enhancing emotional regulation, and encouraging value-directed conduct, acceptance and flexibility typically assist people in responding to uncertainty. The use of Acceptance and Commitment Therapy (ACT), mindfulness-based techniques, and the growing recognition of flexibility as a resilience-building process are among the major developments in literature.

The analysis also identifies some important gaps in the body of current research. Interpersonal, occupational, communal, and every day-life contexts continue to receive less attention in research than clinical, healthcare, and student groups. Additionally, most of the research employs cross-sectional self-report methods and often examines these dimensions independently rather than within comprehensive theoretical frameworks. There is still little evidence from other cultures, especially in the Indian context. Overall, the results show that flexibility and acceptance are essential for boosting tolerance of uncertainty and facilitating adaptive functioning in a variety of spheres of life. To further understand these characteristics and their implications in promoting psychological well-being and resilience in an increasingly uncertain environment, future research should adopt a more integrative, longitudinal, experimental, and culturally diverse approach.

Implications

Since acceptance, flexibility, and tolerance of uncertainty are essential to adaptive human functioning across a variety of domains, this review has significant theoretical, therapeutic, educational, occupational, and social implications.

1. *Mental Health and Clinical Practice:* The application of ACT and mindfulness-based interventions may be supported by acceptance and flexibility, which may help lessen anxiety, stress, sadness, worry, and emotional distress.
2. *Educational Contexts:* These procedures may enhance decision-making, emotional adjustment, resilience, and handling uncertainty in the classroom and in the workplace.
3. *Healthcare and Medical Training:* Improving uncertainty management can boost professional resilience and adaptation while lowering burnout, stress, and emotional tiredness.
4. *Interpersonal Relationships:* Healthy communication, emotional reactivity, conflict resolution, and relationship satisfaction are all supported by acceptance and flexibility.
5. *Workplace and Organisational Settings:* Adapting to change, managing workplace stress, and managing occupational uncertainty can all be improved by flexibility.
6. *Personal Development and Everyday Life:* These concepts support emotional equilibrium, resilience, adaptive decision-making, and adjustment amid life's changes.

7. *Implications for the Indian Context:* The review emphasizes the need for culturally appropriate Indian research and interventions that emphasize tolerance, adaptability, and acceptance of uncertainty in a variety of spheres of life.
8. *Theoretical and Research Implications:* To create cohesive frameworks that explain adaptive functioning under uncertainty, the review emphasizes the necessity of integrative, longitudinal, and cross-cultural research.

References

Abdollahi, A., & Dehghanidowlatabadi, S. (2026). Moderating Role of Psychological Flexibility in the Relationship Between Intolerance of Uncertainty and Perceived Stress Among Women Undergoing in Vitro Fertilization Treatment. *Brain and Behavior*, *16*, e71436.

Altan-Atalay, Ayþe & Abdulcebbar, Amal & Kantarcý Kesen, Laçin & Yýlmaz, Ertürk. (2024). The roles of intolerance of uncertainty and mindfulness in psychological distress: a two-wave longitudinal study. *Current Psychology. 43.* 10.1007/s12144-024-06243-7.

Bais, S. S. (2026). A Comparative Study on Intolerance of Uncertainty, Cognitive Flexibility, and Emotion Regulation among Young Adults. *International Journal of Interdisciplinary Approaches in Psychology*, *4*(3).

Bordieri, M. J. (2022). Acceptance: A research overview and application of this core ACT process in ABA. *Behavior Analysis in Practice*, *15*(1), 90-103.

Bruine De Bruin, W (2021). Age differences in COVID-19 risk perceptions and mental health: evidence from a national U.S. survey conducted in March 2020. *J Gerontol Ser B 76*:e24–e29. https://doi.org/10.1093/geronb/gbaa074.

Carleton, R. N. (2012). The intolerance of uncertainty construct in the context of anxiety disorders: Theoretical and practical perspectives. *Expert Review in Neurotherapy*, *12*, 937–947.

Cervantes-Perea, W.; Martínez-Bacaicoa, J.; Gámez-Guadix, M. Psychological Flexibility and Inflexibility of University Students:An In-Depth Qualitative Study. *Int. J.Environ. Res. Public Health* 2025, 22,1141. https://doi.org/10.3390/ijerph22071141.

Cole, R., Pearce, E., Kenny, S., & Hildreth, A. F. (2026). Strategies for Teaching Uncertainty Tolerance in Medical Education: A Qualitative Study. *JACEP Open*, *7*(1), 100298.

Eryýlmaz, A., Koçyiðit, B., & Huebner, E. S. (2026). Intolerance of uncertainty, digital stress, emotion dysregulation: undermining psychological maturity in early adolescents. *Current Psychology*, *45*(7), 706.

David L. McLain (1993). *The MSTAT-I:* A new measure of an individual's tolerance for ambiguity. *Educational and Psychological Measurement, 53*(1), 183–189.

Emily K. Lindsay, E. K., & J. David Creswell, J. D. (2017). *Mechanisms of mindfulness training: Monitor and Acceptance Theory (MAT). Clinical Psychology Review, 51*, 48–59.

Freeston MH, Rhéaume J, Letarte H, Dugas MJ, Ladouceur R. Why do people worry? *Personality and Individual Differences. 1994*; 17:791–802.

Gambo, S., & Woyopwa, S. H. E. M. (2023). An Exploration of Uncertainty Reduction Strategies in Romantic Relationships. *Alkebulan: A Journal of West and East African Studies*, *3*(1), 20-29.

Godara, M., Everaert, J., Sanchez-Lopez, A., Joormann, J., & De Raedt, R. (2023). Interplay between uncertainty intolerance, emotion regulation, cognitive flexibility, and psychopathology during the COVID-19 pandemic: a multi-wave study. *Scientific Reports*, *13*(1), 9854.

Han, P. K., & Hofmann, B. (2026). Uncertainty tolerance in healthcare: towards a normative conception. *Theoretical Medicine and Bioethics*, *47*(1), 5-27.

Hayes, S. C., Strosahl, K. D., Wilson, K. G. (2012). *Acceptance and commitment therapy: The process and practice of mindful change.* Second Edn. New York, NY: Guilford Press.

Hillen, M. A., Gutheil, C. M., Strout, T. D., Smets, E. M., & Han, P. K. (2017). Tolerance of uncertainty: Conceptual analysis, integrative model, and implications for healthcare. *Social Science & Medicine*, *180*, 62-75.

Hoffmann, C. F. A., Schröder-Abé, M., & Ewert, C. (2024). The role of monitoring and acceptance in daily affective stress reactivity: An ambulatory assessment study. *Mindfulness*, *15*(10), 2609-2621.

Hoffmann, C. F. A., Schröder-Abé, M., & Ewert, C. (2025). Correction: The Role of Monitoring and Acceptance in Daily Affective Stress Reactivity: An Ambulatory Assessment Study. *Mindfulness*, *16*(4), 1088-1088.

Jailani, M. A., Yusooff, F., Karim, H. H., Abd Hamid, N. B., Azizan, A. S. M., & Rahman, M. Z. A. The Role of Intolerance of Uncertainty in Anxiety Disorders: A Systematic Review of the Literature.

Kalaycý, M. Y., & Aydýn, Y. (2025). Intolerance of uncertainty and psychological flexibility predict worry in young adults. *Bartýn University Journal of Faculty of Education*, *14*(1), 238-250.

Kashdan, T. B., & Ciarrochi, J. V. (Eds.). (2013). *Mindfulness, Acceptance, and Positive Psychology: The seven foundations of well-being*. New Harbinger Publications.

Körün, A. B., & Satýcý, S. A. (2025). Longitudinal serial mediation relationship of intolerance of uncertainty, irrational happiness beliefs, and mistake rumination with family communication. *Psychiatric Quarterly*, 1-15.

Latella, D., Marafioti, G., Formica, C., Calderone, A., La Fauci, E., Foti, A., ... & Filippello, G. (2025, July). The Role of Acceptance and Commitment Therapy in Improving Social Functioning Among Psychiatric Patients: A Systematic Review. In *Healthcare* (Vol. 13, No. 13, p. 1587). MDPI.

Mei, W., Lei, M., Li, X., Duan, R., Pan, T., Chen, D., & Chen, Y. (2025). Relationship between intolerance of uncertainty, family resilience, and fertility anxiety in childbearing-aged patients with Crohn's disease and their spouses. *Medicine*, *104*(38), e44296.

McLain, D. L., Kefallonitis, E., & Armani, K. (2015). Ambiguity tolerance in organizations: definitional clarification and perspectives on future research. *Frontiers in Psychology*, *6*, 344.

McMillan, J., & Soundy, A. (2025). Exploration of How Uncertainty Tolerance, Emotion Regulation, and Hope Are Linked and Influenced in People with Chronic Low Back Pain: A Worked Example of a Social Constructivist Meta-Ethnography Study. *Behavioral Sciences*, *15*(10), 1399.

Mei, W., Lei, M., Li, X., Duan, R., Pan, T., Chen, D., ... & Chen, Y. (2025). Relationship between intolerance of uncertainty, family resilience, and fertility anxiety in

childbearing-aged patients with Crohn's disease and their spouses. *Medicine*, *104*(38), e44296.

Minihan S, Orben A, Songco A, et al (2022). Social determinants of mental health during a year of the COVID-19 pandemic. *Dev Psychopathol.* https://doi.org/10.1017/S0954579422000396.

Mrazek, M. D., Dow, B. R., Richelle, J., Pasch, A. M., Godderis, N., Pamensky, T. A., ... & Mrazek, A. J. (2024). Aspects of acceptance: building a shared conceptual understanding. *Frontiers in Psychology*, *15*, 1423976.

Mursalzade, G.;Escriche-Martínez, S.; Valdivia-Salas,S.; Jiménez, T.I.; López-Crespo, G.Factors Associated with Psychological Flexibility in Higher Education Students: A Systematic Review. *Sustainability,* 2025, 17, 5557.https://doi.org/10.3390/su17125557.

Nallepalli V, Murugesan SK. Enhancing marital resilience through psychological flexibility: An acceptance and commitment therapybased case study. *IAPS J Pracht Ment Health,* 2025;3:25-32.

Okayama, Sakiko & Minihan, Savannah & Andrews, Jack & Daniels, Sarah & Grunewald, Karina & Richards, Matthew & Wang, Weike & Hasan, Yasmin & Schweizer, Susanne. (2024). Intolerance of uncertainty and psychological flexibility as predictors of mental health from adolescence to old age. Social Psychiatry and Psychiatric Epidemiology, 59, 2361-2368. 10.1007/s00127-024-02724-z.

Panjwani, A. A., Applebaum, A. J., Revenson, T. A., Erblich, J., & Rosenfeld, B. (2024). Intolerance of uncertainty, experiential avoidance, and trust in physicians: a moderated mediation analysis of emotional distress in advanced cancer. *Journal of Behavioral Medicine*, *47*(1), 71-81.

Patel, P., Hancock, J., Rogers, M., & Pollard, S. R. (2022). Improving uncertainty tolerance in medical students: a scoping review. *Medical Education*, *56*(12), 1163-1173.

Peek, R., Arnold, R., & Moore, L. (2025). Greater tolerance of uncertainty facilitates thriving in doctors entering postgraduate training. *BMC Medical Education*, *25*(1), 1062.

Pieh C, Budimir S, Probst T (2020). The effect of age, gender, income, work, and physical activity on mental health during coronavirus disease (COVID-19) lockdown in *Austria. J Psychosom Res., 136*:110186. https://doi.org/10.1016/j.jpsychores.2020.

Rahmadiani, N. D., & Hartatik, F. Y. (2019). Intolerance of Uncertainty as a Mediator between Psychological Flexibility and Future Anxiety among Vocational High School Students. *International Journal of Indian Psych/ˆlogy*, *7*(1).

Raymond C, Provencher J, Bilodeau-Houle A et al. (2022) A longitudinal investigation of psychological distress in children during COVID-19: the role of socio-emotional vulnerability. *Eur Psychotraumatology, 13*:2021048. https://doi.org/10.1080/20008198.2021.2021048

Reis-Dennis, S., Gerrity, M. S., & Geller, G. (2021). Tolerance for uncertainty and professional development: a normative analysis. *Journal of General Internal Medicine, 36*(8), 2408-2413.

Roche, M., Faulkner, J. W., & Callagher, E. (2026). A scoping review and research agenda: Psychological flexibility and wellbeing in organisations. *Applied Psychology: Health and WellBeing*, *18*(2), e70139.

Rosales-Villacrés, M. D. L., Oyamada, C., Changotasig-Loja, D., & Peñate-Castro, W. (2021). Effects of a mindfulness and acceptance-based program on intimate relationships in a youth sample: A randomized controlled trial. *Behavioral Sciences*, *11*(6), 84.

Safa, S., Ameri Noorani, R., Jalali, B., Jafarzadeh Feki, Z., & Gili, S. (2024). The Role of Psychological Flexibility, Acceptance, and Commitment in Marital Adjustment Among Couples. *Applied Family Therapy Journal, 5*(1), 147-154.http://dx.doi.org/10.61838/kman.aftj.5.1.16.

Salimian, M., Abdollahi, A., & Dehghanidowlatabadi, S. (2026). The Moderating Role of Psychological Flexibility in the Relationship Between Intolerance of Uncertainty and Flourishing.

Sawyer SM, Azzopardi PS, Wickremarathne D, Patton GC (2018). The age of adolescence. *Lancet Child Adolesc Health 2*(3):223–228.

Singh, A., Parashar, P., & Yadav, I. (2025). The Impact of Intolerance to Uncertainty, Fatigue and Decision-Making Styles Among Adults. *International Journal of Psychological Studies*, *17*(3).

Smith, B. M., Twohy, A. J., & Smith, G. S. (2020). Psychological inflexibility and intolerance of uncertainty moderate the relationship between social isolation and

mental health outcomes during COVID-19. *Journal of contextual behavioral science*, *18*, 162-174.

Stefanova, I. (2023). The Theories of Interpersonal Acceptance in Developing Positive Teacher-Student Relationships. *Psychological Research* (in the Balkans), *26*(3), 271-277. ISSN 2815-4797 (Print), ISSN 2815-4800 (Online). DOI: https://doi.org/10.7546/PsyRB.2023.26.03.07.

Turgut, E. T., & Kalý Soyer, M. (2026). The effect of psychological flexibility and intolerance of uncertainty on decision-making styles in university students. *International Journal of Turkish Education Sciences, 14*(1), 284-301. https://doi.org/10.46778/goputeb.1713507.

Witteveen AB, Young SY, Cuijpers P et al. (2023) COVID-19 and common mental health symptoms in the early phase of the pandemic: an umbrella review of the evidence. *PLOS Med., 20*:e1004206. https://doi.org/10.1371/journal.pmed.1004206

Williams B, Rodriguez-Sobstel C, FitzGibbon L, Morriss J, Christakou A. The influence of trait intolerance of uncertainty on behavioural flexibility. *bioRxiv*; 2024. DOI: 10.1101/2024.10.30.621039.

Communication

Mindfulness at Workplace: HR Strategies for Well-being

Upinder Dhar, Santosh Dhar***

Abstract

Mindfulness at work is a vital part of today's high-pressure work environment. Studies show that 26% of workers say they feel "often or very often stressed at work". This workplace stress hits American businesses hard, costing them $150 billion every year. These numbers show why workplace mindfulness matters so much, whether you lead teams or want to take care of your own well-being. Research paints an interesting picture - people's minds wander from their current task 47% of the time. This happens during important moments like reading key emails, talking to clients, and working with teammates. Mindfulness at work helps fight this wave of distraction. Studies show that mindfulness training helps reduce workplace stress and builds stronger teams. Mindfulness also changes how we look at stress itself. Researchers at the University of Wisconsin-Madison found something surprising - people under high stress who saw it as helpful had some of the lowest death rates. The present paper looks at what workplace mindfulness really means, and what are the ways to create a more mindful workplace.

Keywords: Emotional Regulation, Enhanced Collaboration, Improved Focus, Reduced Stress, Burnout.

Introduction

United States businesses lose up to INR 25314.14 billion each year due to stress-related accidents, absenteeism, employee turnover, and decreased productivity. A striking 83% of U.S. workers say they suffer from work stress. Mindfulness provides a powerful solution to this widespread problem. Research shows that mindfulness training substantially lowers stress levels. Employees who took part in a Mindfulness-Based Intervention showed lower psychological distress and burnout. Mindful employees

* *Chairman & Distinguished Professor (ORCID: 0000-0001-7135-9262). Email: upinderdhar@gmail.com; chairman@pdfi.in*

** *Director & Professor Emeritus (ORCID: 0000-0002-2354-8103). Email: santosh_dhar@hotmail.com; director@pdfi.in*

People Development Foundation India, Indore-452016

develop a calm and focused approach to workplace challenges instead of just reacting to them. This change from reactive to proactive thinking creates a more peaceful work environment and reduces work-related anxiety. Modern workplaces are full of distractions. Getting back to work after a distraction takes 23 minutes. Mindfulness helps solve this problem by improving concentration and cognitive flexibility, as it boosts productivity in several proven ways. It helps in being flexible. This increases focus on current tasks while avoiding distractions from competing demands

Mindful employees make fewer cognitive mistakes like forgetting, getting distracted, or making errors. Studies show mindfulness stabilizes attention and improves focus on both visual and listening tasks. Mindful employees finish tasks more efficiently and produce better results. Teams with high employee engagement are 21% more productive. Mindfulness gives people strong emotion control skills - especially valuable in high-pressure environments. Employees learn to spot and manage emotional responses, which leads to better interactions and decisions. Mindfulness practices reduce gray matter in the amygdala -the brain's stress response center. This brain change means people are less likely to see uncertain situations as threats, which prevents defensive reactions. Resilience grows through mindfulness in two main ways: emotional control and persistence. Mindful employees recover faster from setbacks and maintain steady performance under pressure by staying aware of the present moment without judgment.

Mindfulness benefits workplace relationships. It promotes empathy and understanding, which strengthens team dynamics and creates environments where collaboration grows. Teams that practice mindfulness stay fully present during interactions. This leads to clearer and more thoughtful communication. Better listening, appropriate responses, and effective teamwork follow naturally. Mindfulness helps employees thrive and promotes communication, creativity, and helpful behavior. These improvements create supportive and pleasant workplaces where new ideas flourish. It's more than just a wellness benefit. It is a core business strategy that delivers measurable returns on investment.

Mindfulness creates deep personal changes in employees' work lives beyond just helping organizations. People are not mentally present in their activities 46.9% of the time. Research shows that people feel happier when they stay fully present in whatever they do. These findings explain why mindfulness helps improve employee well-being in many ways. Research shows mindfulness leads to higher job satisfaction in workplaces of all types. Studies have shown that employees who learn mindfulness techniques feel much better at relaxing, handling stress, and balancing their work

and personal lives. This happens through several ways: People who practice mindfulness notice situations as less stressful, report fewer stressors, and react more calmly than others. Mindful employees use better coping methods instead of avoiding problems. Mindfulness is associated with higher emotional awareness, which strongly predicts job satisfaction.

Companies that start mindfulness programs see a 29% jump in overall job satisfaction among participants. Workplace mindfulness creates significant mental health benefits substantiated by research. Mindfulness-based stress reduction program helps to improve well-being while increasing self-compassion. These benefits help all employees, even those in high-stress jobs. Factory workers with serious psychological stress reported less fatigue, reduced anxiety and depression, better sleep, and improved relationships.

Mindfulness and work-life integration

Mindfulness offers a novel approach to work-life integration as today's work and personal boundaries blur. Traditional scheduling-focused methods fall short, but mindfulness improves the experience of each domain of life, helping in creating mental and emotional boundaries effectively. It teaches people to notice when work thoughts creep in and then let them go. The goal isn't perfect work-life "balance" but being fully present in each moment. Mindfulness training reduces work-life conflicts and increases satisfaction with work-life balance depending on priorities for separating or combining these areas. People who naturally mix work and personal life find mindfulness particularly helpful for disconnecting when needed. This all-encompassing approach to employee well-being makes mindfulness powerful. It changes not just company metrics but transforms experiences of work fundamentally.

Write down three to five things that make you grateful at work. The physical act of writing matters; don't just think about it. These tips make it work better:

- Get specific – 'My coworkers brought me soup when I was sick' works better than 'I'm grateful to my coworkers'
- Quality beats quantity - one detailed entry means more than a quick list
- Write about people more than things
- Think about life without certain people or things

Research shows writing three times a week might boost happiness more than daily entries. Stick to a schedule; pick the same time each day and write for five or ten

minutes. Making mindfulness a habit needs daily practice. It must be blended in workday to create lasting mental patterns that change professional life. The following ways can add mindfulness to daily work routine:

Setting mindful intentions each morning: Starting the day with clear intentions builds a strong mindfulness foundation. An intention is different from a to-do list; it's a purposeful thought about how one wants to approach the day emotionally and mentally. Taking a moment to think over what one needs to accomplish and how one wants to feel before jumping into emails or meetings. This works best as part of the morning routine. Writing intentions at the top of the notepad with statements like "My intention is to feel calm, confident and in control today". Research shows people who describe their goals vividly are 1.2 to 1.4 times more likely to accomplish them. People who write down their goals are 42% more likely to achieve them. Brain records written intentions, and makes them easier to remember throughout the day. Looking at the same intentions daily strengthens their importance in the subconscious and guides in actions.

Using reminders to stay present: Our brains naturally switch to "autopilot" mode and tend to get lost in the thoughts. Mindful reminders help break this pattern and bring awareness back to the present moment. Helpful reminder strategies include:

- Setting a vibrating phone alarm as a cue to take a mindful breath
- Using everyday events (like a ringing phone) to pause and observe the surroundings
- Installing timer apps for scheduled mindfulness moments
- Placing visual cues like sticky notes in your workspace

Practicing the pause when a reminder activates and using phone's vibration as a chance to reconnect with the present moment instead of checking notifications right away. These quick resets stop mind from constantly planning, problem-solving, or daydreaming activities that drain and increase stress.

Single tasking vs. multitasking: Multitasking might be popular at work, but science proves it doesn't work. Nobody truly multitasks, brain just switches faster between tasks, losing efficiency with each switch. Studies show that the more multitasking, the more addictive it becomes, even as the work quality drops. Single tasking gives one task complete focus and offers better results. The benefits are clear: better attention span, higher quality work, fewer mistakes, and less stress. Single tasking can be practiced by:

1. Keeping a time journal to track when one is single tasking versus multitasking
2. Notice work quality and mindfulness level in each scenario
3. Close extra browser tabs and applications during focus time
4. Turn off all notifications to avoid distractions
5. Block uninterrupted focus time (30-120 minutes) in the calendar

The 25-5 technique works well: focus completely for 25 minutes, then take a 5-minute mindful break. During focus periods, stick to one task - no emails, phone, or other distractions.

Mindful communication with colleagues: Mindful communication changes workplace relationships at their core. This practice means being fully present and attentive during interactions with others. One builds trust, shows respect, and encourages deeper connections when one communicates mindfully. Deep listening is key, paying complete attention without planning response or interrupting. Keeping phone away during conversations, maintaining eye contact, and using verbal affirmations like "I see" or "That makes sense". Take a brief pause before responding thoughtfully after someone finishes speaking. This approach means no multitasking in meetings. Read the agenda beforehand, ask questions actively, and take part in discussions. Use mindful breathing to manage emotional response before replying to difficult conversations. The "hold that thought" technique works well for triggering emails - wait 15 minutes to a day before responding to avoid reactive communication.

HR Strategies

HR departments are vital in building a mindfulness culture across organizations. A well-laid-out strategy helps HR professionals create environments where mindfulness becomes part of daily operations, not just another wellness activity.

Creating a mindfulness-friendly environment: The physical workspace design substantially impacts mental clarity and professional performance. Offices need dedicated "mindfulness zones" – quiet, serene spaces where employees can relax, meditate, or practice deep breathing. These areas should have comfortable seating, calming décor with natural elements, and mindfulness tools like journals or guided meditation recordings. Leadership's steadfast dedication makes mindfulness initiatives successful. Senior managers need to actively join these practices, discuss them openly, and address questions about implementation. Programs work best when employees "opt in" rather than being forced to participate.

Offering mindfulness training programs: Companies can deliver mindfulness through different formats that match employee needs. Programs range from half and full-day retreats to weekly courses spanning 4-8 weeks, drop-in sessions, and "train the trainer" programs that build internal capabilities. A recent mindfulness program showed impressive results – 100% of participants reported decreased stress, 80% saw better relationships, and everyone recommended the program to others. Training content needs both theory and practice. A "Healthy and Mindful Leadership" program typically covers health literacy basics, deepens managers' commitment to role modeling, and helps promote health literacy among team members. Many programs use a "21-days challenge" that helps people build new habits.

Encouraging mindful breaks and quiet zones: Regular breaks with proper duration boost recovery. Many workplaces don't deal very well with breaks, they're too short, delayed, or interrupted. HR teams can help by allowing flexible time during the day and letting employees step away from their desks when needed. Teams need "gap time" between meetings. Even 5-10 minutes helps employees focus better, boost productivity, and improve wellbeing. A designated quiet room with calming images gives people space to refocus away from workplace distractions.

Integrating mindfulness into wellness: Starting mindfulness early sets positive expectations. New hire anxiety drops when onboarding includes mindfulness exercises. New employees should set personal wellness goals for physical activity, mental health, and relationship building. Ongoing support comes through meditation apps and wellness workshops. Mindfulness becomes more meaningful when it's part of performance evaluations and goal setting. Regular surveys and feedback can help to measure success and shape program improvements based on what employees say.

Building a mindful organization culture: Building a mindful organization goes beyond individual practices. A cultural transformation must spread through every level of the company structure. Many organizations now recognize this need and change "from a culture of control to a culture of trust" by systematically integrating mindfulness. Leaders' examples are the foundations of mindful culture. Their open practice of mindfulness inspires everyone in the organization to adopt these practices. Leaders at Bosch Automotive Electronics use designated silent rooms for meditation before major decisions or difficult conversations. SAP has made short meditations standard practice at the start of meetings. This visible dedication shows that mindfulness isn't just allowed, but it's a vital part of organizational success.

Systematic implementation throughout company structures makes integration successful. The ARISTO framework provides a practical approach with six evidence-based practices. These practices include encouraging Autonomy, promoting Repetition of mindful habits, supporting Internalization through mentorship, creating Spaces for dialog, using Triggers through organizational artifacts, and encouraging Observation of exemplars. A thoughtful onboarding process helps new employees adapt to these practices. Treating mindfulness as a character virtue that develops over time proves more effective than viewing it as an occasional activity.

Assessing Impact

Clear assessment protocols make mindfulness programs work better. Organizations should set SMART goals (Specific, Measurable, Achievable, Realistic, and Time-bound) for their mindfulness initiatives. Employee surveys, stress level measurements, and performance evaluations provide vital data about program effectiveness. This feedback helps organizations improve their approach and keeps mindfulness practices relevant as workplaces evolve. Leadership mindfulness drives organizational change. Mindful leaders build environments where breakthroughs thrive and employees feel valued. Mindful leaders show unique qualities that help them work better. Self-awareness forms their foundation. It helps them recognize their strengths, weaknesses, and emotional triggers. These leaders stay emotionally balanced during tough situations through better attention and focus on the present moment. They listen actively when communicating. This means they fully engage with others' views without judgment. Mindful leaders also bounce back from setbacks quickly and handle workplace challenges calmly.

Team climate shapes psychological safety. Members value each other's input, care about well-being, and contribute to work processes. Leaders build this environment through supportive and consultative behaviors. Employees feel safer sharing ideas and take risks when their leaders show attention, stay calm, and avoid judgment. The best results come when leaders first create a positive team environment through support, then challenge their teams the right way. Mindful decisions need reflection time. Leaders must think about both short-term results and long-term effects. This method reduces bias and arranges decisions with company values. Ethical leaders choose what benefits everyone, not just profits. They find the right balance between employee, customer, and community needs while stimulating company growth. Mindfulness practices help leaders make thoughtful, balanced, and ethical choices.

Conclusion

Mindfulness at work is a powerful way to transform workplace culture and boost individual well-being. Present-moment awareness creates benefits that touch many aspects of professional life. Research shows mindfulness practices help reduce workplace stress, improve focus, strengthen emotional control, and encourage better team collaboration. It can be started with simple practices like one-minute breathing exercises, mindful walking, or gratitude journaling in one's daily routine. These small habits produce remarkable results when practiced regularly. Focus and balance at work improve through single-tasking, daily intentions, and mindful communication with colleagues. Organizations see tremendous benefits when mindfulness becomes part of their culture. The HR team's role is vital in creating mindfulness-friendly spaces, providing training programs, and supporting mindful breaks. Leaders who demonstrate mindful behaviors inspire others, which encourages psychological safety and ethical decision-making throughout the company. Today's workplace faces increasing pressures.

Mindfulness provides more than just temporary stress relief. It fundamentally changes the approach to professional life. Mindfulness can be viewed as a core skill for success in modern work environments rather than just another wellness program. Mindfulness changes one's work relationship from within. A few moments of present awareness can reset the mind and improve the focus. These changes affect the entire workday. Massive time commitments or expensive programs are not needed. Small, consistent practices can create profound results when they become part of daily routine. The path to a more mindful workplace starts with a single breath, a moment of presence, or a thoughtful pause before responding. These small actions multiply across days and teams. They build the foundation for healthier, more productive work environments that benefit everyone. The researchers need to conduct studies to validate the observations empirically in Indian context.

References

Allen, Tammy D. & Kiburz, Kaitlin M. (2012). Trait mindfulness and work-family balance among working parents: The mediating effects of vitality and sleep quality. Journal of Vocational Behavior, 80(2), 372-379.

Burton, *James P., Barber, Larissa K. (2019).* The role of mindfulness in response to abusive supervision. *Journal of Managerial Psychology, 34*(5), 339-352.

Chen, *Liangyong; Liu, Yu; Hu, Sanman; Zhang, Sai (2022).* Perception of organizational politics and innovative behavior in the workplace: The roles of knowledge-sharing hostility and mindfulness. *Journal of Business Research, 145*(June), 268-276.

Dhar, Upinder (2024). Editorial: Mindfulness and Well-being. *Indian Journal of Training and Development, 54*(1-4), January-December Issue. ISSN: 0971-5592.

Dhar, Upinder (2026). Samvad: Mindfulness in the Workplace. *Business Manager, 28*(10), 7, April Issue.

Eby, *Lillian T., Allen, Tammy D., Conley, Kate M., Williamson, Rachel L., Henderson, Tyler G., & Mancini, Victor S. (2019).* Mindfulness-based training interventions for employees: A qualitative review of the literature. *Human Resource Management Review, 29(2), 156-178.*

Hafenbrack, Andrew C. (2017). Mindfulness meditation as an on-the-spot workplace intervention. *Journal of Business Research, 75*(June), 118-129.

Hafenbrack, Andrew C. & Vohs, Kathleen D. (2018). Mindfulness meditation impairs task motivation but not performance. *Organizational Behavior and Human Decision Processes, 147, 1-15.*

Hales, Douglas N. & Chakravorty, Satya S. (2016). Creating high reliability organizations using mindfulness. *Journal of Business Research, 69*(8), 2873-2881.

Hales, Douglas N.; Kroes, James; Chen, Yuwen. & Kang, Woo (David) (2012). The cost of mindfulness: A case study. *Journal of Business Research, 65*(4), 570-578.

Kay, *Adam A. & Skarlicki, Daniel P. (2020).* Cultivating a conflict-positive workplace: How mindfulness facilitates constructive conflict management. *Organizational Behavior and Human Decision Processes, 159,* 8-20.

Kong, Dejun Tony (2016). The pathway to unethical pro-organizational behavior: Organizational identification as a joint function of work passion and trait mindfulness. *Personality and Individual Differences, 93,* 86-91.

Stuart-Edwards, Anastasia; MacDonald, Adriane; Ansari, Mahfooz A. (2023). Twenty years of research on mindfulness at work: A structured literature review. *Journal of Business Research, 169*, 114285. https://doi.org/10.1016/j.jbusres.2023.114285Get rights and content

Case Study 01

The Strategic Evolution of EcoYou

Introduction

A Company Built on Conviction

In an era of 1990's when agricultural residue was widely regarded as waste, the late Vegesna Subba Raju (Founder Chairman) and Ramakrishna Raju Gottumukkala (Managing Director and CEO) saw an untapped opportunity to convert agro-residue into sustainable, commercially viable alternatives to conventional wood products. The duo believed that in a decade, Indian consumers would begin to think about sustainability as a purchasing option and eco-responsible products would have a market and that a well-positioned venture could serve it profitably. They were not dreamers disconnected from commercial reality. They understood margins, supply chains, and customer relationships. But they also understood something that most of their contemporaries in the mid-1990s Indian business landscape did not: that the ecological future of products was not a fringe concern. It was where the world was heading.

With a bold vision of redefining waste as a valuable resource, after lot of study and experimentations and collaborative efforts from Eurpoean companies like Germany, EcoYou (operating under Ecoboard Industries Limited) in Pune, Maharashtra was established it's first Agro-based manufacturing facilitiy in 1994, forefront of innovation in India's green building materials industry. Operating from Maharashtra, one of World's first and India's leading agricultural and industrial ecosystems, EcoYou steadily gained market acceptance. Growing customer demand and a reliable supply chain strengthened the duo's confidence in the business model and encouraged them to imagine a larger version of themselves. While others saw crop residues as a disposal problem, the founders saw an opportunity to create value for farmers, protect forests, and redefine the future of construction.

This case was developed by Manjula Shastri (Chetana's Institute of Management and Research, Mumbai), Tabassum Jahan (School of Business Management, Chhatrapati Shahu Ji Maharaj University, Kanpur), and Sujata Rathod (Institute of Management & Research, MGM University, Chha Sambhajnagar) during the 16th Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25-27, 2026.

Product profile

The company provides a wide range of products and services ranging from energy, build, and life. The build division includes products such as EcoWall, EcoDor, EcoDec, EcoPac, and EcoBoard as its flagship product. EcoBoard is also made from different natural fibers, including wheat straw, rice husk, cotton stalk, coconut husk, and sugarcane bagasse, which are agricultural wastes that the conventional construction industry had never thought to use. These boards found application across partitions, ceilings, flooring, and furniture, offering buyers a sustainable alternative to conventional wood-based products like plywood, MDF, and plastic-based materials. Driven by their vision of transforming agricultural waste into high-performance, sustainable materials, EcoYou developed India's first fire-retardant, bullet-resistant, formaldehyde-emission-free board.

The company's expanding product portfolio and increasing market acceptance reflected the strength of its business model. Business dynamics rarely remained predictable; there was no exception for EcoYou. The company encountered unexpected economic fluctuations, technological advancements, environmental concerns, unorganized comptetion and global crises that reshaped industries and altered market dynamics. Such situations compelled the duo to make important strategic decisions despite having limited information, constrained resources, and significant uncertainty. Yet, as EcoYou prepared to build on this momentum, an unexpected external crisis challenged its assumptions and tested its ability to adapt.

Creating Value Through Crisis

Seeing Opportunity Where Others Saw Waste (1992–1998)

The entrepreneurial journey of Ecoboard Industries Limited did not begin with a technological breakthrough or a market survey. It began with a simple observation: India was generating millions of tonnes of agricultural residue every year, much of which was either burnt in fields or disposed of as waste. At the same time, the country's growing construction and furniture industries remained heavily dependent on timber-based products, contributing to increasing pressure on forests and natural resources. For most businesses, these represented two unrelated problems. For Vegesna Subba Raju, the Founder Chairman, and Ramakrishna Raju Gottumukkala, the Managing Director, they represented two sides of the same opportunity. During the early 1990s, environmental sustainability had yet to become a mainstream business consideration in India. Customers selected products primarily based on price, durability and availability.

Concepts such as circular economy, carbon footprint, green procurement, and ESG reporting had not yet entered corporate vocabulary. Building materials manufactured from agricultural residues were virtually unknown in the Indian market, and the commercial viability of such products remained largely untested. Despite these conditions, the founders believed that industrial development and environmental responsibility did not have to be mutually exclusive. They anticipated that growing environmental awareness, increasing scarcity of timber resources, and future regulatory changes would eventually create demand for sustainable alternatives. Their conviction rested on a simple entrepreneurial insight: agricultural residues were not waste; they were underutilized raw materials capable of generating economic, environmental, and social value.

Scaling Against the Odds (1998–2002)

With the success of the first unit at Islampur the founders envisioned scaling the business through a carefully planned expansion agenda. They developed a growth plan and approached the World Bank for funding. Recognising the company's potential to promote sustainable industrial development and environmental conservation, the World Bank IMF branch approved the loan & equity upto 4 million USD, providing the financial resources needed to scale. While the stage was set for the major expansion, an unexpected event occurred in midst. On 11 May 1998, India detonated nuclear devices at the Pokhran test range in Rajasthan. The tests, codenamed Operation Shakti. Prime Minister Atal Bihari Vajpayee announced the results to a nation that erupted in a complicated mixture of pride, anxiety, and disbelief (Perkovich, 1999).

For Indians, the Pokhran-II nuclear tests symbolized national pride and technological achievement. However, for Ecoboard entrepreneurs, the celebrations came along with an uncertain business environment. The United States imposed immediate sanctions and revoked the IMF loans given to Indian companies. The international response had direct consequences for EcoYou. Although the World Bank had approved financing for the company's expansion, the loan was subsequently withdrawn in the wake of the sanctions. At the same time, German machinery imported for the expansion remained stranded at Mumbai Port due to tightening import procedures and financial restrictions. The prolonged delay and escalating costs nearly tripled the project's capital expenditure and significantly disrupted EcoYou's expansion plans.

The German machinery ordered had already arrived at Mumbai airport, but with the withdrawal of the World Bank financing, the company could no longer import it under the original funding arrangement. What had seemed like a routine step in the expansion

process suddenly became an expensive and uncertain challenge. Determined to move forward, the company sought alternative financing from domestic financial institutions. By the time the new arrangements were in place, the Indian rupee had depreciated sharply. The cost of importing the machinery had nearly tripled. The expansion that had been intended to accelerate EcoYou's growth was delayed by months and financed at a significantly higher cost than originally envisioned.

For many young businesses, such setbacks could have marked the end of an ambitious journey. For EcoYou, they became a defining moment. Rather than allowing uncertainty to dictate their future, the company responded with resilience and disciplined decision-making. They reassessed priorities, restructured their financing, and remained committed to their long-term vision. Capital expenditure was prioritised carefully, operating costs were tightly controlled, and expansion plans were implemented more gradually than originally envisaged. Instead of pursuing rapid growth, management focused on strengthening manufacturing processes, improving product quality and serving customers consistently while meeting new financial obligations. Management learned that building a sustainable enterprise required more than innovation. It required resilience, prudent financial management and the ability to adapt when external events disrupted carefully prepared plans.

EcoYou tried to rebuilt its revenue, re-established its institutional buyer relationships, diversified its product line incrementally and developed the supplier network that gave it operational stability. The organisation developed the modest but functional infrastructure of a going concern. The eco-products market itself was changing around them. Regulatory pressure on packaging and materials was beginning to build. Corporate sustainability commitments were acquiring procurement implications.

Building Markets for an Unconventional Product (2002–2019)

The successful completion of Ecoboard's expansion marked the beginning of a new challenge. The company had demonstrated that agricultural residues could be converted into engineered boards at a commercial scale, but manufacturing a product was only half the entrepreneurial journey. By 2019, the firm occupied a defensible position in its market segment and was moving towards hope of survival. The founders might reasonably have believed that the hardest chapters were behind them.

The greater challenge lay in convincing customers to adopt a material that was unfamiliar to the market.Unlike conventional plywood and wood-based panels, Ecoboard products represented an entirely new category. Architects, furniture

manufacturers, contractors and institutional buyers questioned whether boards made from agricultural residues could deliver the strength, durability and workability required for commercial applications. Winning customer confidence required far more than competitive pricing; it required education, demonstration and consistent product performance. Technical demonstrations, application support and close engagement with architects, fabricators and distributors became integral to the company's growth. Each successful installation became a reference for future customers, gradually reducing skepticism toward agro-fibre engineered boards.

Finding Opportunity Amid Disruption (2020–2022)

By the beginning of 2020, EcoYou had finally reached a stage where the business felt little picking up, Years of hard work had strengthened its customer base, expanded its product portfolio, and given the founders confidence that the company was ready to grow further. However, just as things were beginning to fall into place, another unexpected crisis emerged. The outbreak of COVID-19 brought business activities across the country to a sudden halt. Manufacturing slowed, transportation was disrupted and customer orders became uncertain. Like many businesses, EcoYou had to deal with a situation that no one had anticipated. Rather than losing sight of their long-term vision, the founders focused on keeping the business moving. Even in times of stress, they worked closely with customers and suppliers, managed resources carefully, and prepared the company for the time when markets would recover. The company supplied panels that were used in the creation of mass COVID isolation facilities, demonstrating another unconventional application of products originally developed for the building and furniture industries.

Although these projects represented a relatively short period in the company's history, they illustrated an important entrepreneurial capability. Rather than viewing its products as confined to a single industry, Ecoboard continuously explored how the same technology could solve entirely different customer problems. The pandemic also accelerated broader conversations around sustainability, supply chain resilience and responsible resource utilisation. Organisations increasingly sought materials that were not only technically reliable but also environmentally responsible.

Ecoboard's value proposition which had appeared unconventional when the company was founded in the early 1990s had become increasingly relevant. As business activities gradually resumed, they noticed a growing preference for sustainable and environmentally responsible products. This shift in customer expectations encouraged EcoYou to look at familiar problems with fresh eyes. The company started developing

the innovative products like flooring, Therma walls, packaging materials, Racking solutions etc. What began as a challenge soon became the inspiration for the company's next innovation EcoBoard.

The Next Entrepreneurial Leap

Ecoboard Industries Limited stands at a new entrepreneurial crossroads. The company's journey, built on the founders' ability to identify value in agricultural waste, overcome uncertainty, and continuously adapt to changing market conditions, has created multiple opportunities for future growth. With strengthened financial capabilities and expanding expertise in sustainable building materials and Compressed BioGas (CBG) solutions, the founders must decide how to deploy their limited resources most effectively. Should they continue scaling the EcoBuild business that established the company's identity? Should they pursue the emerging bioenergy and circular economy opportunity? Should they leverage their accumulated knowledge through technology partnerships and licensing? Or should they attempt to build a broader sustainability enterprise by integrating multiple opportunities?

Questions

1. How did exogenous shocks such as the international sanctions and the COVID-19 pandemic influence EcoYou's strategic direction? Evaluate the strategic responses adopted by the company during each crisis.
2. How did the leadership style and entrepreneurial capabilities of EcoYou's founders evolve over successive crises? To what extent did this evolution contribute to the firm's long-term competitiveness?
3. The case suggests that resilience is not an inherent organizational characteristic but a capability developed over time. Evaluate this statement using evidence from EcoYou's journey.
4. Analyse how entrepreneurial opportunity recognition enabled the company to create value from an underutilized resource

Teaching Note

The Strategic Evolution of EcoYou

1. Synopsis of the Case

EcoYou, a Maharashtra-based eco-products enterprise, navigated three discrete disruptions across two decades: the macroeconomic shock of India's 1998 Pokhran nuclear tests and consequent international sanctions, the demand triggered by the COVID-19 lockdowns of 2020 and the opportunity to convert Maharashtra's surplus sugarcane bagasse into a commercially viable board material branded EcoBoard. This case study presents the firm's journey as a longitudinal narrative case, tracing how each crisis was experienced, survived, and ultimately converted into a new layer of organisational capability. Written in a story-form register to illuminate the consistency of entrepreneurial decision-making. It demonstrates how adversity can become entrepreneurial inputs when coupled with ecological market demand. The case is designed for MBA and management development classrooms.

2. Target learning group

This case is suitable for undergraduate and postgraduate management programmes (BBA, BBM, MBA, MMS, and PGDM). It is particularly appropriate for courses in Strategic Management, Entrepreneurship, Sustainability and Innovation Management.

3. The learning/teaching objectives and key issues

1. To Examine how entrepreneurial ventures respond and adapt to exogenous shocks arising from geopolitical, regulatory and macroeconomic changes.
2. To Examine how leadership styles and entrepreneurial capabilities evolve through successive crises, enabling organizations to adapt, innovate and create sustainable competitive advantage.
3. To Evaluate organizational resilience as a dynamic capability developed through adaptive decision-making rather than as an inherent organizational trait.
4. To Analyse how entrepreneurial opportunity recognition transforms underutilized resources into value-creating innovations to serve crises as catalysts for strategic renewal and organizational repositioning

4. Teaching Strategy

The EcoYou case is designed for a 60minute classroom session. The case encourages students to examine how entrepreneurial ventures develop strategic resilience by responding to successive external disruptions. Rather than evaluating a single crisis in isolation, students are required to trace the evolution of entrepreneurial decision-making across multiple periods of uncertainty and assess how accumulated learning shapes long-term competitive advantage. Students should be asked to read the case individually before class and identify the major strategic decisions made by EcoYou's leadership during each phase of its evolution. During the session, the instructor may divide the class into four or five groups, assigning each group one critical phase of the company's journey.

Individual Assessment : The students may be asked to apply concepts regarding EdTech Industry, Entrepreneurial & Leadership Styles, Decision-making frameworks like SWOT, Business Automation & Digitalisation. The student should be able to evaluate multiple options and understand the pros and cons of their decisions. The students should also use the pre-reading materials to connect with the situation given in the case study.

Group Assessment: Students may be asked to adopt a role-play e.g., as CEO, Centre Manager, Social Media Manager, Cashier, Operations Head to discuss the strategies and to address the problems in front of the faculty members. They can present a power-point.

Teaching plan: Introduction of the case and profile of EcoYou (10 Min),Initiate discussion using thought-provoking questions on entrepreneurship, crises and resilience (10 Min). Students analyse EcoYou's strategic decisions during the Pokhran sanctions, COVID-19 and EcoBoard innovation (15 Min). Apply strategic frameworks (SWOT, PESTLE and Porter's Five Forces) to evaluate EcoYou's competitive position and capabilities (15 Min).Discuss alternative future strategies, consolidate key learning points, and conclude with the unresolved managerial dilemma (10 Min)

5. Questions for Discussion

1. **How did exogenous shocks such as the international sanctions and the COVID-19 pandemic influence EcoYou's strategic direction? Evaluate the strategic responses adopted by the company during each crisis.**

Students should recognize that the three crises differed significantly in nature but required similar strategic capabilities.

Crisis	Nature of Shock	Strategic Response	Outcome
Pokhran Sanctions	Geopolitical	Cancelled World Bank funding, self-financing, operational restructuring	Financial survival and organizational learning
COVID-19 Pandemic	Macroeconomic/ Public Health	Diversification into sustainable healthcare products and operational flexibility	Revenue continuity and market diversification
Sugarcane Bagasse Challenge	Regulatory/ Environmental	Development of EcoBoard using agricultural waste	Product innovation and sustainable competitive advantage

Students should conclude that EcoYou consistently viewed external disruptions as opportunities to rethink its business model rather than temporary obstacles. Suggested Frameworks-PESTLE Analysis and Strategic Adaptation

2. **How did the leadership style and entrepreneurial capabilities of EcoYou's founders evolve over successive crises? To what extent did this evolution contribute to the firm's long-term competitiveness?**

   Initially, leadership focused on entrepreneurial survival through persistence and resource mobilization. During subsequent crises, leadership became increasingly strategic by anticipating market changes, encouraging innovation, building partnerships, investing in learning, embracing sustainability and promoting experimentation. The founders gradually shifted from reactive decision-makers to transformational entrepreneurial leaders capable of creating new market opportunities.

3. **The case suggests that resilience is not an inherent organizational characteristic but a capability developed over time. Evaluate this statement using evidence from EcoYou's journey.**

   EcoYou provides strong evidence that organizational resilience is developed through repeated learning and adaptive decision-making rather than existing as an innate characteristic. The international sanctions forced EcoYou to

rethink its financing strategy, reduce dependence on external funding, and develop stronger internal capabilities. These experiences improved managerial judgment and resource management. The COVID-19 pandemic further strengthened organizational resilience by demonstrating the firm's ability to diversify products, reconfigure operations, and maintain business continuity despite severe market disruptions. The EcoBoard initiative illustrates a higher level of resilience. Rather than merely recovering from adversity, the company proactively transformed an environmental challenge into a new business opportunity. This reflects resilience as strategic renewal rather than simple recovery. Thus, resilience became a dynamic organizational capability created through continuous adaptation, learning, and strategic experimentation.

4. **Analyse how entrepreneurial opportunity recognition enabled the company to create value from an underutilized resource.**

Students should appreciate that entrepreneurial opportunity recognition involved creating new value rather than merely exploiting existing demand. The innovation repositioned EcoYou from an eco-products manufacturer to a sustainable building-materials innovator. Suggested Frameworks- Opportunity Recognition Theory and Blue Ocean Strategy

6. Analysis of Data

No data is used in the present case

7. Background Reading

Some of the references for background reading for the case are as follows:

A. *Websites:*

1. *https://www.ecoboard.in*
2. *https://moef.gov.in*
3. *https://www.niti.gov.in*
4. *https://www.weforum.org*
5. *https://hbr.org*
6. *https://www.worldbank.org*
7. *https://sdgs.un.org*

B. Books

1. Sarasvathy, S. D. (2008). *Effectuation: Elements of Entrepreneurial Expertise*. Edward Elgar Publishing.
2. Drucker, P. F. (1985). *Innovation and Entrepreneurship*. Harper Business.
3. Robbins, S. P., & Judge, T. (2009). *Organizational behavior*. Pearson South Africa.
4. Kotter, J. P. (1996). *Leading Change*. Harvard Business School Press.

8. Experience of using the case

Experience of using the case: The case study was conducted for PGDM students at Chetana's Institute of Management Mumbai. Number of Participants 60 (1 Divisions)

S.No.	Parameters	Remarks
1	Assimilation	The students were able to take in and fully understand the information provided in the case.
2	Learning Objectives and Relevance	Students were able to identify the relevance of the case with respect to market gap, entrepreneurial adaptability, leadership styles and the role of technology.
3	Process and Approach	The case was conducted as group activity leading to group analysis and later took individual review.

Students were able to articulate the significance of cultural and social factors. They were able to outline and reflect the insights through the framework through SWOT analysis and leadership models. It enhanced their understanding of entrepreneurial and leadership theories and decision-making ability in the changing environment.

Case Study 02

When the Science Fails, Who Gets Cut First?

Introduction

XYZ Therapeutics, founded in 1990 and headquartered in San Francisco, California, is a biopharmaceutical company built on a chemistry platform rather than a single product line. Its core technology, a polymer-conjugation process the company calls PolyLink, modifies drug molecules so that they remain active in the bloodstream for longer, reducing how often a patient needs to take a medicine and sometimes reducing side effects. For much of its history, XYZ licensed this technology into other companies' approved drugs in exchange for royalties and milestone payments — a model that produced steady, if modest, revenue without requiring XYZ to build its own large commercial salesforce.

Over the past decade, however, XYZ's ambitions shifted. Rather than only licensing its chemistry to others, the company began building its own wholly owned pipeline of high-value drug candidates, particularly in oncology and immunology. This shift brought rapid growth — new laboratories, new hires, and new international partnerships — but it also concentrated the company's fortunes around a small number of very large bets. This case study examines what happened when XYZ's biggest bet failed, and the human capital decisions that followed: who the company chose to keep, who it let go, and what that choice reveals about how a knowledge-intensive global company values the talent it has spent years building, especially talent located far from its home headquarters.

Organizational Background and Business Model

XYZ Therapeutics' business model has two parts. The first is technology licensing: providing its PolyLink chemistry to pharmaceutical partners who use it to improve their own marketed drugs, in exchange for ongoing royalty income. The second, more

This case was developed by Narendra Rathnaraj (PSG Institute of Management, Coimbatore), M. Bala Koteswari (Sanskrithi School of Business, Puttaparthi), Aneesya Panicker, Garima Sainger, Tophan Patra, Preeti Tarkar, Ram Bhavesh Sharan (Shri Vaishnav Institute of Management & Science, Indore) and Sachin Agarwal (Institute of Business Management, GLA University, Mathura) during the 16th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25 - 27, 2026.

recent part is proprietary drug development: running its own clinical trials, often in partnership with larger pharmaceutical companies who provide funding and commercial scale in exchange for a share of any eventual product.

By the early 2020s, XYZ operated three main sites. Its headquarters and primary discovery laboratories remained in San Francisco. A manufacturing facility in a mid-sized U.S. city handled large-scale production of its PolyLink chemistry for commercial partners. And a research facility in Hyderabad, India — opened roughly thirteen years earlier — provided lower-cost analytical chemistry, compound scale-up, and laboratory support for the company's growing pipeline. The Indian facility was not a back-office function; it included its own analytical laboratories, a pilot-scale production unit, and an animal-testing facility, and was, by the company's own account, its first research site built outside the United States.

The Big Bet

In 2018, XYZ entered into a large development partnership with ABC Pharmaceuticals, one of the world's largest pharmaceutical companies, to develop Cytalin, an engineered immune-signalling therapy designed to help the body's own immune cells attack cancer tumors. The plan was to combine Cytalin with Nivopro, ABC's own blockbuster cancer immunotherapy, in the hope that the combination would work better than either drug alone across several major cancer types.

The deal was, by a wide margin, the most important partnership in XYZ's history. ABC agreed to pay up to $3.2 billion in total milestones, with roughly $1.7 billion paid to XYZ upfront and in near-term payments. That capital — and the credibility of partnering with one of the largest drug companies in the world - financed a much larger XYZ than its licensing business alone would ever have supported: roughly 690 employees, three sites on two continents, and more than a dozen pipeline programs in various stages of development.

In early 2022, the results came in. Across multiple major cancer types — including melanoma, kidney cancer, and bladder cancer - the Cytalin-Nivopro combination failed to show any meaningful benefit over standard treatment alone. The clinical program was stopped permanently, and ABC terminated the partnership entirely. The failure did not just end one drug. It eliminated the financial logic for the size and shape of the company XYZ had spent four years building around that single bet.

The Restructuring

Within weeks of the partnership's collapse, XYZ announced a sweeping restructuring. Total headcount would fall from roughly 690 to 210 employees — a cut of close to 70 percent — trimming a significant share of the company's annual operating budget. Two senior executives who had led the now-cancelled program's medical and commercial strategy departed by name as part of the announcement. Office space at the California headquarters was subleased to reduce costs, though the site itself continued operating. And the Hyderabad research facility — thirteen years old, the company's first laboratory outside the United States — was shut down in full.

The restructuring was built around two surviving bets: Reztiva, an autoimmune-disease candidate being co-developed with LMN Pharma, and XT-255, an earlier-stage immuno-oncology candidate the company hoped to either advance on its own or license to a partner. Any research, infrastructure, or personnel that did not directly serve those two programs became a candidate for elimination, on a timeline measured in days rather than months. Read against the geography of the cuts, the company's logic is fairly easy to follow after the fact: keep the smallest team that could carry Reztiva and XT-255 through their next major results; keep just enough San Francisco headquarters function to manage that; keep the manufacturing site because production capacity tied to existing, revenue-generating partner products is expensive and slow to rebuild once it is gone. And eliminate, in full, the one major piece of infrastructure whose entire purpose had been to support a much bigger company chasing a much bigger bet — a bet that had just failed.

A Site Built Over Thirteen Years, Closed in a Single Announcement

The Hyderabad facility had not been a token presence. It was built in a well-known biotechnology corridor that, over the years, came to host research operations for several other large global life-sciences companies. XYZ had spent thirteen years recruiting analytical chemists and laboratory technicians there, building local management capability, and constructing dedicated laboratory infrastructure. Independent employee reviews of the site through the years had rated it consistently highly on both overall satisfaction and compensation, and the most frequently held role at the site was a mid-level analytical scientist position — suggesting a stable, functioning, well-regarded part of the company's global research organization, not a struggling or underperforming outpost.

That history did not buy the site any apparent consideration as a unit worth preserving in some smaller form once the crisis arrived. It was treated, in the company's own restructuring communication, identically to an office sublease: a cost line to remove, not a capability to manage carefully through a difficult moment. By contrast, the San Francisco headquarters absorbed deep cuts but continued to exist as a site, with its lease retained even as space was subleased, and with two senior people named individually as departures — implying some role-by-role decision-making about who specifically would stay and who would go. There is no public evidence that Hyderabad received any equivalent process: no announcement of an individual evaluation of who might have been redeployed onto the surviving programs' analytical needs, no attempt to retain a smaller core team, no transition support beyond the standard language applied company-wide. The site was treated as a single unit, and the unit was eliminated.

External Environmental Challenges

XYZ's difficulties did not arise in isolation. Several broader forces in the biotechnology and pharmaceutical industry shaped both the original bet and the crisis that followed.

1. **Concentration Risk in R&D-Stage Biotechnology**

   Clinical-stage biopharmaceutical companies routinely build their entire organizational scale around the expected success of their most advanced drug candidates. A single Phase 3 clinical trial — often costing tens of millions of dollars and taking years to complete — can determine whether a company of XYZ's size survives in its current form or must be dismantled almost overnight. This binary, all-or-nothing dynamic is well understood in the industry, but companies nonetheless continue to concentrate resources around their most promising single asset, because the upside of success is so large relative to a more diversified, slower-growing alternative.

2. **The Economics of Global Research Sites**

   Companies based in high-cost countries such as the United States have, for decades, built offshore research and development sites in countries such as India to access skilled scientific talent at a lower cost. These sites are often deliberately built for scale: a facility sized to support a dozen active programs does not become proportionally cheaper to run when only two programs remain. This creates a structural vulnerability — when a company's pipeline shrinks suddenly, an offshore site built for a larger pipeline can become disproportionately expensive

to keep running relative to its current usefulness, even if the people working there are performing well.

3. Distance from Crisis Decision-Making

A research site located thousands of miles from corporate headquarters is, by its nature, harder for a board or executive team to evaluate closely during a fast-moving crisis. Decision-makers know their headquarters colleagues personally; a remote site is more often known only as a name on an organization chart and a number in a budget. When a leadership team has only days to act, the path requiring the least additional information-gathering and the least individualized attention is often a single, clean decision — keep the site or close it entirely — rather than a more nuanced, partial restructuring that would require exactly the kind of close, person-by-person attention that a fast crisis process is least equipped to provide for a site far from home.

Internal Human Resource Challenges

These external pressures translated directly into a set of human resource dilemmas for XYZ's leadership.

1. Who Gets Individualized Consideration, and Who Does Not

The central human resource question raised by XYZ's restructuring is not why the company cut costs — the failed partnership made that unavoidable — but how it decided which people and which sites would be evaluated individually, and which would be eliminated as an undifferentiated group. San Francisco's cuts came with names attached: specific executives whose roles had become redundant were identified and departed individually, implying some process of evaluating who among the remaining headquarters staff could be redeployed onto the surviving programs. Hyderabad's cut came with no names attached at all — only a single line announcing that the facility would close. Whether this reflects a deliberate judgment that the Hyderabad team's skills did not transfer to the surviving programs, or simply a default outcome of distance and time pressure, is something the case asks the reader to investigate rather than assume.

2. What a Promise to Value Talent Is Worth Under Pressure

Like many global technology and life-sciences employers, XYZ's public messaging about its Hyderabad site, in calmer years, emphasized the quality and importance of the talent based there. The restructuring tested what that messaging was

actually worth. A company can say, accurately, that it valued the people it hired at a remote site for over a decade. The real test of that valuation is not what the company says in ordinary times, but what it does in the two weeks when keeping any of those people costs something it can no longer easily afford.

3. **The Disposable Workforce Cycle**

   XYZ's experience also illustrates a broader pattern familiar across the technology and biotechnology sectors: companies hire aggressively when a major bet looks promising, and cut just as aggressively when it fails, with comparatively little structural memory carried from one cycle to the next. This pattern is costly to execute — severance, lost institutional knowledge, and the expense of rebuilding capability later — and it is emotionally difficult for both the employees who are cut and the managers who must make the decisions, but companies continue to repeat it because the alternative, carrying excess capacity through a downturn in the hope of a future upswing, is harder to justify to investors in the short term.

Strategies and Aftermath

The 2022 restructuring did not stabilize XYZ for long. Roughly ten months later, Reztiva — the asset the entire post-Cytalin strategy had been built around — failed its own mid-stage clinical trial in one of its lead indications, prompting LMN Pharma to pull back from further development in that specific disease area. A second restructuring followed within months: a roughly 60 percent cut to the remaining San Francisco-based workforce, the departure of two more senior executives, and a renewed, even narrower focus on Reztiva in its remaining indications, alongside an active search for an external partner for XT-255. The manufacturing site was again left untouched.

By that point, XYZ had cut the large majority of its original workforce across two rounds — and the second round landed entirely on San Francisco, the site that had survived the first. There was no Hyderabad left to close a second time; the offshore site had already absorbed, in full, what was arguably the cleanest and most easily executed cut available to the company in the first round.

Some two years later, in a calmer period with more time to plan, XYZ sold its manufacturing facility to a private equity firm. Unlike the Hyderabad closure, this later transaction was structured carefully to protect the people involved: employees at the manufacturing site were offered continued employment with the new owner, and the facility itself kept operating under different ownership, while XYZ retained certain long-term royalty rights tied to the products made there. The contrast between

the two outcomes — a research site eliminated overnight under acute crisis pressure, and a manufacturing site transitioned carefully under planned, lower-pressure conditions — became, for those studying the company afterward, one of the more striking parts of its recent history.

Comparative Analysis

XYZ Therapeutics' Treatment of Its Three Sites During the 2022 Restructuring

San Francisco Headquarters

- Headcount reduced sharply, but the site itself was retained, with office space subleased rather than abandoned.
- Two senior executives departed as named, individual decisions, implying some role-by-role evaluation of who would stay.
- Remaining staff regrouped around the two surviving clinical programs.

Manufacturing Facility

- Fully untouched in the 2022 restructuring; manufacturing capacity tied to revenue-generating partner products was judged essential regardless of the broader crisis.
- Later transitioned carefully, under planned conditions, via a sale that protected employees' jobs.

Hyderabad Research Facility

- Closed in full; zero positions retained.
- No public evidence of an individualized evaluation, partial wind-down, or redeployment process for any of the staff there.
- Thirteen years of recruiting, training, and accumulated institutional knowledge ended in a single line of the same announcement that named two departing San Francisco executives.

Conclusion

XYZ Therapeutics' experience illustrates a recurring tension in global, knowledge-intensive industries: a company can recruit excellent people into an offshore research site, train them for over a decade, give them real scientific responsibility, and still —

when a crisis arrives at its headquarters — default to treating that entire site as a single disposable unit rather than as a population of individuals whose contributions might be worth differentiating and partially preserving. None of this requires any deficiency in the people who worked there. It requires only that the site be organizationally distant enough, and the time pressure great enough, that giving it the same individualized treatment the headquarters site received was harder to do, or was simply never seriously attempted.

The case highlights that human capital decisions made under acute pressure reveal a company's true priorities far more clearly than its messaging during calmer years. For organizations operating global research and development networks, the lesson is not necessarily that offshore sites should never be closed — but that the process by which such decisions are made deserves the same scrutiny, and ideally the same degree of individualized care, regardless of how far the site sits from the people making the call.

Questions

1. What were the key factors that led to XYZ's drastic restructuring in April 2022?
2. Was XYZ's decision to completely shut down the Hyderabad facility justified? Why or why not?
3. What alternative restructuring strategies could the company have considered instead of a full site closure?
4. How can multinational companies ensure equitable treatment of global talent during crises?
5. Did the 2022 restructuring actually solve XYZ's problems, or just delay them?

Teaching Note

When the Science Fails, Who Gets Cut First?

1. Case Synopsis

This case explores the strategic and organizational crisis faced by XYZ Therapeutics following the failure of its lead drug, Cytalin, in April 2022. The setback triggered an urgent need for restructuring, leading the company to shut down its Hyderabad R&D center while retaining its Huntsville manufacturing operations. The case highlights the risks of excessive dependence on a single product within innovation-driven industries, emphasizing how such concentration can amplify vulnerability during failure. It also examines the complexities of crisis-driven decision-making, where speed often conflicts with fairness and transparency. Additionally, the case raises critical ethical concerns regarding workforce management, particularly the unequal impact of restructuring on geographically dispersed teams. By contrasting operational priorities with human considerations, it underscores the tension between ensuring immediate organizational survival and maintaining long-term capability, equity, and employee trust in a global business environment.

2. Target Learning Groups

- BBA / MBA / PGDM (Strategy, OB, HR, Leadership courses)
- Executive Education (Leadership, Crisis Management)
- Specialized programs in Healthcare / Biotech Management

3. Teaching Objectives

By the end of the discussion, students should be able to:

Strategic Thinking

- Understand risks of single-product dependency in biotech
- Evaluate portfolio diversification strategies
- Analyze post-failure corporate restructuring decisions

Organizational Behavior

- Examine fairness vs. efficiency in layoffs
- Understand global workforce dynamics and biases
- Explore leadership responsibility during crises

Decision-Making Under Uncertainty

- Assess trade-offs between speed vs. deliberation
- Evaluate alternative restructuring approaches
- Analyze incomplete and high-pressure decision contexts

Ethics & Leadership

- Debate ethical responsibility toward employees
- Assess how companies balance shareholder vs. stakeholder interests

4. Teaching Strategy (90-Minute Session)

0–10 min: Opening

- Ask: *"What happened at XYZ Therapeutics?"*
- Capture key facts on board

10–30 min: Case Understanding

- Discuss causes of restructuring
- Explore Cytalin failure implications

30–55 min: Decision Analysis

- Debate Hyderabad closure
- Evaluate alternative strategies

55-75 min: Ethics & Global Workforce

- Discuss fairness, bias, and global talent issues

75-90 min: Wrap-Up

- Key lessons
- What would you do as CEO?

5. Questions for Discussion

Q1. In what ways did the failure of Cytalin represent more than a single product setback?

The failure of Cytalin represented more than a single product setback because it undermined the very foundation of XYZ Therapeutics' strategy and scientific credibility. Cytalin was not just a leading drug candidate but also a validation of the company's underlying immunotherapy platform; its failure cast doubt on the effectiveness of this core technology. This significantly damaged the company's reputation among investors, partners, and the broader scientific community. Additionally, it disrupted existing strategic collaborations and reduced the firm's ability to attract future partnerships. From a financial perspective, the loss of Cytalin eliminated the primary anticipated revenue stream, thereby triggering a broader financial crisis. Ultimately, the failure exposed the company's lack of pipeline diversification and highlighted deeper structural weaknesses in its business model.

Q2. In crisis situations, how should organizations balance the need for rapid decision-making with the imperative for fairness and transparency?

In crisis situations, organizations must strike a delicate balance between acting quickly and maintaining fairness and transparency. Speed is essential to stabilize the organization, conserve resources, and maintain investor confidence. However, decisions made too hastily can undermine employee trust and damage organizational culture. Fairness requires that decisions are based on clear, consistent, and objective criteria, while transparency involves openly communicating the rationale behind those decisions. The optimal approach is not to choose one over the other, but to integrate both making timely decisions while ensuring that processes are perceived as just and respectful. This can be achieved through structured decision frameworks, clear communication, and leadership visibility. Organizations that manage this balance effectively are more likely to retain credibility and sustain long-term employee commitment.

Q3. What systems, processes, and leadership practices can multinational companies implement to ensure equitable treatment of global talent during periods of crisis?

To ensure equitable treatment of global talent, multinational companies must institutionalize fairness through robust systems and inclusive leadership

practices. This includes implementing standardized global evaluation frameworks that assess employees based on performance, skills, and strategic relevance rather than geographic location. Transparent decision-making processes, supported by clearly defined criteria, help build trust and reduce perceptions of bias. Organizations should also ensure diverse representation in leadership teams, allowing different regions to have a voice in critical decisions. Furthermore, consistent and timely communication across all geographies is essential to maintain alignment and morale. By embedding these practices into organizational systems, companies can create a more inclusive and equitable environment, even during periods of crisis.

Q4. "The Hyderabad facility was not shut down because of poor performance, but because it was the easiest option to execute." Do you agree or disagree?

The argument that Hyderabad was shut down because it was easier to execute is partially valid. Factors such as geographic distance, lower representation in senior leadership, and reduced visibility likely made the facility a more convenient target for restructuring. Additionally, eliminating an entire unit allows for faster implementation compared to conducting detailed, organization-wide evaluations. However, this perspective should be balanced with operational considerations, including cost structures and strategic priorities. While ease of execution likely influenced the decision, it was not the sole factor; rather, it operated alongside financial and strategic imperatives. Thus, the decision reflects a combination of practicality and structural bias.

Q5. If you were a member of the executive leadership team at XYZ Therapeutics, what would you have done differently in response to the Cytalin failure—and why?

As a member of the executive leadership team, a more balanced and forward-looking approach could have been adopted. Instead of a complete shutdown of the Hyderabad facility, a hybrid restructuring strategy could have been implemented, combining selective layoffs with project prioritization to retain critical R&D talent. Greater emphasis on transparent communication would have helped maintain employee trust and morale. Additionally, earlier efforts to diversify the pipeline and build strategic partnerships could have reduced dependence on Cytalin and mitigated the impact of its failure. Such an approach would aim to address immediate financial pressures while

preserving the organization's long-term innovation capabilities and strategic resilience.

6. Analysis of Data

Although the case is largely qualitative, it reveals key quantitative insights underlying XYZ Therapeutics' decisions. The company's cost structure shows that R&D centers like Hyderabad involve high fixed costs and long-term returns, while manufacturing units such as Huntsville generate immediate revenue, making them more critical to retain. Following Cytalin's failure, declining expected revenues and an unsustainable cash burn rate forced the firm to reduce expenses and extend its financial runway. The crisis also exposed the risks of relying on a single drug, as the lack of a diversified pipeline increased vulnerability. Additionally, manufacturing functions offer predictable, short-term value, whereas R&D outcomes are uncertain and delayed, prompting firms to prioritize the former during crises. Despite lower costs, offshore units like Hyderabad are often viewed as less essential and easier to shut down, reflecting a focus on immediate survival and operational simplicity.

7. Background Reading

To deepen students' understanding of the strategic, organizational, and ethical issues raised in the case, instructors may assign the following background readings:

- McGrath, R. G. *"Fail Fast, Learn Faster"*: Useful for discussing innovation failure and adaptive strategy.
- BCG Report *"R&D Productivity in Pharmaceuticals"*: Explains pipeline diversification and risk distribution.
- Cascio, W. F.*"Responsible Restructuring: Creative and Profitable Alternatives to Layoffs":* Directly relevant to alternative restructuring strategies discussed in the case.
- Harvard Business Review — *"Layoffs That Don't Break Your Company"*: Focuses on fairness, communication, and long-term organizational impact.
- Harvard Business Review *"Managing Across Distances in Multinational Firms"*: Highlights HQ bias, visibility challenges, and global talent inequities.
- Ghemawat, P. *"Distance Still Matters":* Explains how geographic, cultural, and institutional distance affects decisions.

What Happened Next (Epilogue Insight)

Following the 2022 restructuring, XYZ Therapeutics stabilized its short-term financial position by significantly reducing operating expenses. However, the long-term implications remained uncertain. The company faced continued challenges in rebuilding its pipeline and restoring investor confidence. With diminished R&D capabilities, its ability to generate breakthrough innovations became constrained.

In the broader industry, similar cases have shown that companies taking aggressive cost-cutting measures often survive in the short run but may struggle to regain competitive advantage unless they **reinvest strategically in innovation and partnerships.** The case thus leaves open an important question: *Did the restructuring save the company, or merely buy time?*

8. Experience of using the case

The case was successfully used in MBA classrooms, where it generated high levels of student engagement because of its integration of strategic, ethical, and organizational behavior perspectives. Students initially focused on the financial urgency of the situation and supported the restructuring decision from a business sustainability standpoint. As the discussion progressed, they began to examine ethical concerns, employee fairness, leadership accountability, and potential bias against global offshore employees. The classroom discussions evolved into lively debates, allowing students to critically evaluate the trade-offs between organizational performance and social responsibility.

Students with a strategic orientation emphasized cost reduction, investor expectations, and organizational survival, often viewing the restructuring as a necessary business decision. Those with an HR and organizational behavior perspective highlighted employee morale, fairness, and the need for individualized evaluation rather than broad workforce reductions. Students adopting a global perspective questioned the disproportionate impact on offshore units and discussed structural inequities commonly observed in multinational corporations. Overall, the case effectively enhanced students' critical thinking, ethical reasoning, decision-making, and ability to analyze complex managerial issues from multiple stakeholder perspectives.

Case Study 03

When Success Isn't Enough: From Banking to Sustainable Farming

The Decision

Hyderabad, 2010

Raj Malhotra stared at the unsigned resignation letter lying on his desk. After nearly fifteen years in India's rapidly evolving financial services industry, he had built a successful career in Commercial Banking. Throughout his banking journey, he worked in commercial banking functions rather than retail lending or wealth management. Over the years, he held leadership roles in reputed multinational banks, managing commercial banking portfolios, leading geographically dispersed teams, building strong client relationships, achieving demanding business targets, and mentoring future leaders. His career had provided professional recognition, financial stability, and continuous opportunities for growth. By every conventional measure, he achieved success.

Yet, one question continued to occupy his mind.

Was corporate success alone enough to define a meaningful life?

Quarter after quarter, targets were achieved, promotions followed naturally, and financial rewards continued to grow. However, the excitement associated with professional accomplishments gradually began to diminish. Increasingly, he found himself questioning whether professional success alone could provide long-term fulfilment. He wanted to pursue work that aligned more closely with his personal

This case was developed by Natika Sandeep Poddar (St. Francis Institute of Management and Research, Borivali, Mumbai), Makarand Eknath Wath (SVKM's Narsee Monjee Institute of Management Studies, Indore), Sayli Kale (MGM University, Chh. Sambhajinagar), Namrata Singh (Prin. L.N. Welingkar Institute of Management Development and Research, Mumbai), Raji Jennet (PSG Institute of Management, PSG College of Technology, Peelamedu, Coimbatore,TN), Sandeep Kumar and Deepika Pandoi (Institute of Business Management, GLA University, Mathura, U.P.) during the 16th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25 - 27, 2026.

values and his deep appreciation for nature and sustainable living. Leaving banking, however, was not an emotional decision. He fully understood the magnitude of what he was considering. Agriculture offered no guaranteed salary, no structured career progression, and no predictable annual increment. Farming depended upon uncertain factors such as climate, water availability, market prices, pests, and changing consumer demand. It required significant investment while offering uncertain returns. Fortunately, years of disciplined saving and prudent financial planning had created a financial cushion. He had always believed in living within his means and making careful financial decisions. His financial preparedness gave him the confidence to consider a different path without exposing his family to immediate financial hardship.

Family discussions became increasingly frequent.

Would agriculture generate sustainable income? Would the savings last long enough? What if the venture failed? Would leaving a secure corporate career jeopardize the family's future? The decision affected not only he, but also his family, whose support would be essential if he chose this unconventional path. While financial risks could be estimated, the emotional consequences of leaving behind a successful corporate identity were much harder to evaluate. For him, the resignation letter symbolized much more than changing jobs. It represented a choice between two different definitions of success. One path promised continued professional growth, financial security, and corporate leadership. The other offered uncertainty, entrepreneurship, sustainability, and the opportunity to live according to his values. As he reflected on this life-changing decision, memories from an entirely different phase of his life resurfaced - experiences that had quietly shaped his philosophy long before he entered the banking profession.

Looking Back – Why This Decision?

To understand why he was willing to leave a successful banking career, it is necessary to revisit the experiences that shaped his values long before he entered the corporate world. His decision was not driven by impulse but by a philosophy that had evolved over several decades.

Bhutan: Where the Seeds Were Sown

He has spent part of his childhood in Bhutan, a country known for measuring progress through the philosophy of Gross National Happiness (GNH) rather than Gross Domestic Product (GDP).Unlike rapidly urbanizing societies where economic success often dominates personal aspirations, Bhutan emphasized environmental conservation,

community well-being, simplicity, and harmony with nature. Growing up amidst forests, mountains, and agricultural communities left a lasting impression on him. Nature was never merely a resource for economic activity but an integral part of everyday life.Although he later built a successful career in banking, these early experiences quietly influenced his understanding of what constituted a meaningful and fulfilling life. Years later, while reviewing business strategies and commercial banking portfolios, memories of Bhutan frequently resurfaced, prompting him to question whether professional success alone could provide lasting happiness.

Early Aspirations and Personal Values

As a student, he actively participated in sports and outdoor activities. These experiences developed discipline, perseverance, teamwork, and resilience—qualities that later became defining characteristics of both his professional and personal life. He also aspired to join the defence services, motivated by a desire to contribute meaningfully to society. Although circumstances prevented him from pursuing that path, the aspiration to create a positive social impact remained deeply rooted.When engineering opportunities did not materialize, he chose Commerce and later completed an MBA in Finance. Rather than viewing these changes as setbacks, he treated them as opportunities to build a rewarding professional career in India's expanding financial services sector.

Corporate Career and Redefining Success

He began his banking career in 1995 with DCL Finance, where the modest salary was more than compensated by the opportunity to learn under experienced professionals. Early in his career, he realised that banking extended far beyond financial transactions. Customer trust, ethical conduct, relationship management, teamwork, and integrity formed the foundation of long-term business success.Over the next fifteen years, he worked with leading financial institutions, including Citigroup and ABN AMRO Bank, building his career entirely in Commercial Banking. His professional experience centred on managing commercial banking relationships, understanding business finance, leading teams, managing portfolios, and strengthening client relationships. Unlike many of his peers, his career did not involve retail lending or wealth management.

Working in multinational banks also broadened his professional outlook. He witnessed the evolution of commercial banking from relationship-driven lending to governance-based systems supported by structured processes, compliance, risk management, and

disciplined portfolio monitoring. These experiences strengthened his leadership capabilities while enhancing his understanding of balancing business growth with prudent risk management.An equally valuable outcome of his banking career was the development of a deep interest in personal financial planning. Although his professional responsibilities remained within commercial banking, the culture of continuous learning at ABN AMRO Bank encouraged him to understand broader aspects of personal finance, investments, and financial independence. This curiosity gradually became a lifelong interest.

His disciplined approach to financial planning ensured that, even while pursuing a demanding corporate career, he consistently saved and invested prudently. This financial discipline later became one of the strongest enablers of his career transition. When he eventually decided to leave banking, he did so from a position of financial security rather than financial uncertainty. Professionally, He had achieved everything he had planned. Promotions, leadership responsibilities, financial stability, and industry recognition followed naturally. Yet, despite these accomplishments, an important question continued to grow stronger.The corporate journey had provided him with financial security, managerial expertise, and professional confidence. However, it also encouraged deeper reflection about the true purpose of work and the meaning of success.His childhood experiences in Bhutan, appreciation for nature, commitment to prudent living, and growing desire to contribute meaningfully to society gradually converged into a new aspiration—one that extended beyond corporate achievements.

By 2010, He no longer viewed success solely in terms of promotions, compensation, or corporate designations. Instead, he envisioned a life that combined financial independence, environmental sustainability, meaningful work, and personal fulfilment.These reflections ultimately led him to make one of the most significant decisions of his life—to leave a successful corporate banking career and embark on a new journey rooted in sustainable farming and purposeful living.

Reality – When Passion Met Uncertainty

The transition from a structured banking career to agriculture proved far more challenging than He had anticipated. While his vision was driven by a desire to live in harmony with nature and create a sustainable livelihood, the realities of farming exposed him to uncertainties that were fundamentally different from the predictable environment of the banking sector. Unlike banking, where outcomes could largely be influenced through planning, execution, and disciplined processes, agriculture

depended heavily on factors beyond human control—soil conditions, climate, rainfall, pests, diseases, and market fluctuations. He approached farming with the same disciplined mindset that had guided his banking career. However, he also recognized that agriculture demanded patience, continuous learning, and respect for nature rather than attempts to dominate it.

Beginning with Annual Crops

Instead of immediately investing in high-value horticulture, He adopted a cautious approach. He began with annual crops such as castor and tur dal, allowing him to understand the land, soil behaviour, climatic conditions, and farming practices before making long-term investments. These early years became his learning laboratory. Rather than focusing only on financial returns, he invested time in understanding the ecosystem and the realities faced by farmers.

Sweet Lime and Learning from Nature

Having gained confidence through annual cultivation, He planted Sweet Lime (Mosambi) as his first perennial crop in 2011.During this period, he also experimented with mango as an intercrop. While mango appeared commercially attractive, the soil and environmental conditions on his farm did not support its healthy growth. Instead of forcing cultivation against nature, he chose to respect the limitations of the land. He discontinued mango cultivation, believing that successful farming required working with nature rather than attempting to overcome it through excessive intervention. This experience reinforced one of his lifelong philosophies:

Nature always provides feedback. Wisdom lies in listening rather than resisting.

By **2015**, after spending several years understanding farming and the characteristics of his land, he decided to diversify by planting **pomegranate.** The decision was not impulsive. He viewed pomegranate as an opportunity to enhance farm income while diversifying his agricultural portfolio. However, unlike many entrepreneurs who make aggressive investments chasing rapid growth, he adopted a measured approach. His years in banking had taught him the importance of prudent financial management, diversification, and controlled risk-taking. Consequently, he avoided excessive borrowing and invested only what he could comfortably afford.

Unfortunately, despite careful planning, the crop did not perform as expected because the local climatic and environmental conditions were not ideally suited for

pomegranate cultivation. Although disappointing, the setback did not create a financial crisis. Because he had expanded cautiously and avoided over-investment, the losses remained manageable. Rather than viewing the experience as failure, he considered it another lesson in understanding agriculture and respecting ecological realities. The experience strengthened his conviction that sustainable farming required patience, adaptability, and prudent decision-making rather than aggressive expansion.

Challenges in Building the Organic Farmer Producer Organisation

Alongside his farming activities, he devoted considerable effort to establishing an Organic Farmer Producer Organisation (FPO). His objective was to help small farmers collectively improve market access, strengthen bargaining power, and create sustainable livelihoods through collaboration. The vision was socially meaningful. However, translating the vision into a commercially sustainable organisation proved extremely difficult. As these operational issues accumulated, sustaining the organisation became increasingly difficult. Eventually, the FPO ceased operations. For him, the closure represented much more than the failure of an organisation. It challenged many of his assumptions about balancing social purpose with commercial sustainability. The experience taught him that good intentions alone could never substitute for sound business models, professional governance, financial discipline, and effective market linkages.

Understanding Market Realities

The farming journey also highlighted an important distinction between consumer interest and commercial viability. Although demand for organic produce appeared to be growing, transforming that demand into a financially sustainable enterprise required expertise extending far beyond crop production. Marketing, branding, distribution, logistics, customer education, and consistent quality became equally important. Agricultural income remained seasonal and unpredictable, making cash-flow management a constant challenge.

Fortunately, he disciplined financial planning during his banking career protected him from severe financial distress. His carefully built savings acted as a financial cushion that allowed him to continue experimenting, learning, and adapting without exposing his family to financial insecurity. Throughout this journey, family support remained one of his greatest strengths. Their encouragement reinforced his belief that prudent planning and emotional resilience were equally important in navigating uncertainty. Gradually, he realised that entrepreneurship demanded far more than

passion. It required careful planning, financial preparedness, market understanding, adaptability, and the willingness to continuously learn from setbacks.

Reinvention: Sustainable Farming Practitioner

Rather than abandoning farming after experiencing setbacks, he chose to reinvent himself. He never viewed agriculture purely as a commercial venture. Instead, he regarded it as a lifelong learning process that deepened his understanding of nature, sustainability, and resilience. Although farming did not immediately deliver the financial outcomes he had once imagined, it gave him something far more valuable experience. Years of working with the land strengthened his appreciation for sustainable agricultural practices and reinforced his belief that long-term success comes from working with nature rather than attempting to control it.

Over time, he also realised that farming can become a remunerative and financially sustainable venture when approached with careful planning, prudent financial management, patience, and informed decision-making. While returns may not be immediate, consistent efforts, continuous learning, and strategic choices can create long-term economic value. His journey reinforced a powerful lesson—that passion and economics need not be opposing forces. When supported by patience, discipline, and the right strategies, they can successfully go hand in hand. He continued farming while gradually diversifying his professional activities.

Financial Educator & Portfolio Management Advisor

He was never a financial advisor by profession, nor did he build a career in wealth management. His expertise in personal finance evolved naturally from his years in Commercial Banking, particularly during his tenure at ABN AMRO Bank, where a strong culture of continuous learning encouraged employees to broaden their understanding of financial planning and investments. His curiosity led him to develop deep knowledge of personal finance, investing, and financial independence. More importantly, he consistently applied these principles in his own life. His disciplined saving habits and prudent investment decisions ensured that when he chose to leave his corporate career, he remained financially secure and was never financially exposed despite entering the uncertain world of agriculture. Over time, friends and family frequently sought his advice on personal finance and investments. He willingly shared his knowledge to help others become financially secure. However, he never viewed financial education or portfolio guidance as a commercial profession. For him, it was

simply a way of giving back by helping others make informed financial decisions and achieve long-term financial independence.

Teacher and Practitioner of Sustainable Living

He never actively aspired to become a motivational speaker or public figure. Instead, he occasionally shared his professional experiences and practical knowledge with students at a few business schools in Hyderabad, particularly on subjects related to financial services and banking. These sessions were driven by a desire to share practical insights rather than build a speaking career. Today, he also serves as a volunteer teacher in a government school, where he contributes his time and knowledge to support education. Beyond teaching, he continues to practise sustainable living in his everyday life. His journey through banking, farming, and personal finance has reinforced one principle that consistently guides his decisions:

Prudence

Whether managing finances, investing in agriculture, making career choices, or living sustainably, he believes that thoughtful decision-making, respect for nature, and long-term thinking create more enduring success than pursuing short-term gains. Over the years, his understanding of success has evolved. Corporate titles no longer define achievement. Neither does the size of a farm or financial wealth alone. Instead, success means living according to one's values, remaining financially responsible, continuously learning, respecting nature, and contributing positively to the lives of others.

The New Crossroads

Hyderabad, 2024

Fourteen years had passed since Raj Malhotra had placed the unsigned resignation letter on his desk. The man sitting quietly on his farm was no longer only the accomplished commercial banker who had once led teams and managed large business portfolios, nor was he simply a farmer experimenting with sustainable agriculture. He had evolved into someone whose journey had been shaped by continuous learning, resilience, prudent decision-making, and a willingness to redefine success. His phone displayed three unread messages. Each represented a different direction for the next phase of his life. Each offered opportunities, but each also involved different levels of responsibility, risk, and impact. he reflected on the experiences that had shaped him over the previous fourteen years. His banking career had taught him discipline, leadership, relationship management, and prudent financial planning. Farming had

taught him humility, patience, resilience, and respect for nature. Together, these experiences had given him a unique perspective on balancing financial security with purposeful living. Now, once again, he found himself standing at a crossroads.

The First Message: Expanding Sustainable Farming

A group of investors interested in sustainable agriculture approached him with a proposal to expand his farming operations. They believed his years of practical farming experience, combined with his understanding of business management, made him well suited to lead a larger commercially viable farming enterprise. The proposal involved expanding cultivation by acquiring or leasing additional land, investing in modern irrigation systems, adopting improved technologies, and increasing production for larger domestic and export markets. From a business perspective, the opportunity appeared promising.

Expansion could significantly increase production, improve economies of scale, generate employment for rural communities, and enhance long-term profitability. However, he also understood the risks. His years of farming had taught him that agriculture remained dependent on factors beyond managerial control. Weather conditions, water availability, pest attacks, market fluctuations, and changing consumer preferences could quickly affect profitability. Unlike his earlier years, he was no longer interested in pursuing rapid growth simply because it appeared financially attractive. He wondered whether expanding the scale of operations would allow him to preserve the principles of sustainability and prudent decision-making that had guided him throughout his farming journey.

The Second Message: Supporting Farmers through Collective Action

A development organisation working in rural livelihoods invited him to participate in strengthening farmer collectives and promoting sustainable agriculture. His earlier experience in establishing an Organic Farmer Producer Organisation, despite its eventual closure, had provided valuable practical insights. The organisation believed that his experience—including both successes and failures—could help design stronger systems for farmer collaboration, governance, market access, and capacity building. Unlike his earlier attempt, the proposed initiative would have professional management support, stronger institutional partnerships, and improved financial planning. The opportunity appealed to him because it aligned closely with his long-standing desire to contribute to rural development. At the same time, he understood that collective enterprises required balancing diverse stakeholder interests, maintaining

transparency, ensuring financial sustainability, and building trust among participating farmers. His previous experiences had made him optimistic, but also realistic.

The Third Message: Teaching, Financial Education, and Sustainable Living

The third opportunity reflected another dimension of his journey. A management institution invited him to teach courses related to financial services, sustainable business, and entrepreneurship by sharing his practical experiences with students. At the same time, people within his personal and professional network increasingly requested guidance on personal financial planning and long-term investing. He had never considered financial education or personal finance guidance as a profession. Instead, it had always been an extension of his natural interest in helping others become financially secure through prudent financial planning. In addition to teaching at business schools, he continued volunteering at a government school, where he found immense satisfaction in contributing to society through education. This path offered something different. It would allow him to continue farming on a manageable scale, remain closely connected with nature, teach future managers using real-life experiences, and continue helping individuals improve their financial well-being without exposing himself to excessive financial risk.

He reflects quietly.

"Success once meant becoming National Sales Head. Today it means choosing work aligned with my values. But values alone cannot ignore economics. Which path creates the greatest long-term value—for myself, my family, and society?"

The decision remains open.

Questions

1. Should professionals prioritise financial security or personal purpose while making major career decisions? Justify your answer using appropriate management theories and examples.
2. How did Raj's prudent financial planning influence his ability to transition from a successful banking career to agriculture?
3. What entrepreneurial lessons can be learned from Raj's farming journey regarding calculated risk-taking, respecting environmental limitations, and adapting to changing circumstances?

4. Why is balancing social purpose with commercial sustainability important while building farmer collectives or other social enterprises?
5. Evaluate the three strategic alternatives before Raj. Which option would you recommend and why? Support your answer using relevant strategic management or entrepreneurship frameworks.

Teaching Note

When Success Isn't Enough: From Banking to Sustainable Farming

Synopsis

This case explores the intersection of career management, entrepreneurship, sustainability, and financial planning through the real-life journey of Raj Malhotra, an accomplished commercial banking professional who voluntarily leaves a secure and successful corporate career to pursue a life aligned with his values. Motivated by his commitment to sustainable living and his deep respect for nature, His transitions from the structured world of commercial banking to the uncertain yet rewarding field of agriculture. Although the initial years involved experimentation and setbacks, the case also demonstrates that farming can become economically remunerative over time through prudent planning, patience, continuous learning, and strategic decision-making.

Unlike many entrepreneurial stories driven by rapid growth, his journey reflects calculated risk-taking, financial prudence, continuous learning, and adaptability. He begins farming cautiously with annual crops such as castor and tur dal, later introduces sweet lime as a perennial crop, experiments with mango as an intercrop, and subsequently diversifies into pomegranate after carefully understanding farming realities. Throughout his journey, he demonstrates the importance of respecting ecological limitations rather than forcing commercial ambitions against nature. The case also highlights his attempt to establish an Organic Farmer Producer Organisation (FPO), the challenges of balancing social objectives with commercial sustainability, and the lessons learned from entrepreneurial setbacks.

Alongside farming, his interest in personal finance—developed during his commercial banking career, particularly at ABN AMRO Bank—helps him achieve financial

independence before leaving corporate employment. Rather than becoming a professional financial advisor, he voluntarily shares his knowledge with friends, family, students, and the community to promote financial awareness and responsible investing. The case encourages students to examine career transitions through the lenses of financial planning, entrepreneurship, sustainability, resilience, leadership, and strategic decision-making. Students are expected to apply analytical frameworks such as SWOT Analysis, Opportunity Cost Analysis, Risk–Return Analysis, Effectuation Theory, and Decision Tree Analysis to evaluate the strategic choices presented at the conclusion of the case.

Target Audience

MBA, Executive MBA, MMS, PGDM, M.Com, Entrepreneurship Development Programmes, Leadership Development Programmes, Executive Education Programmes

Courses

Strategic Management, Entrepreneurship, Leadership, Corporate Finance, Career Management, Sustainability Management, Rural Management, Agricultural Entrepreneurship, Family Business, Decision Sciences

Learning Objectives

After analysing this case, students should be able to:

1. Understand the importance of financial preparedness before making major entrepreneurial or career decisions.
2. Analyse the strategic challenges involved in transitioning from a successful corporate career to entrepreneurship.
3. Evaluate entrepreneurial decisions using frameworks such as SWOT Analysis, Opportunity Cost Analysis, Decision Tree Analysis, Effectuation Theory, and Risk–Return Analysis.
4. Appreciate the importance of calculated risk-taking, prudent financial management, and long-term thinking in entrepreneurship.
5. Analyse the challenges involved in sustainable agriculture and Farmer Producer Organisations.

6. Evaluate how leadership, resilience, and adaptability contribute to entrepreneurial success despite setbacks.
7. Understand how environmental sustainability and commercial sustainability can be balanced in entrepreneurial ventures.
8. Recommend appropriate strategic alternatives for Raj's future career based on managerial and entrepreneurial frameworks.

Teaching Strategy

The instructor may conduct the case discussion using the following approach:

- Introduce Raj's professional journey and the context of his transition from commercial banking to sustainable farming.
- Discuss the role of financial independence in enabling entrepreneurial decision-making.
- Divide students into groups to analyse the case using SWOT Analysis, Opportunity Cost Analysis, Decision Tree Analysis, Risk–Return Analysis, and Effectuation Theory.
- Encourage debate on the balance between passion, purpose, and financial security.
- Facilitate discussion on agricultural entrepreneurship, sustainability, and resilience.
- Ask each group to recommend one strategic option for Raj and justify it using management theories.
- Conclude with a faculty debrief linking the case to broader concepts of career management, leadership, entrepreneurship, sustainability, and financial planning.

Key Issues Embedded in the Case

Key Issue	Learning Objective Addressed
Opportunity cost of leaving a successful corporate career	Career decision-making and opportunity cost
Financial independence before entrepreneurship	Financial planning and risk management
Transition from commercial banking to farming	Career transition and entrepreneurship

Respecting ecological limitations	Sustainable business practices
Crop diversification and calculated risk-taking	Entrepreneurial strategy
Failure of the Farmer Producer Organisation	Social entrepreneurship and governance
Family support during career transition	Stakeholder management
Reinvention through teaching, voluntary financial education, and sustainable living	Leadership, resilience and career reinvention
Strategic career alternatives	Strategic management and decision-making

Discussion Questions with Suggested Answers

1. Should professionals pursue passion only after achieving financial independence?

Financial independence significantly reduces the risks associated with major career transitions. Raj's disciplined financial planning enabled him to pursue farming without exposing his family to severe financial hardship. However, passion need not always wait for complete financial independence. The ideal approach is to balance aspirations with prudent financial planning and realistic risk assessment.

2. Why did Raj leave a successful banking career?

Raj's decision was influenced by:

- His childhood experiences in Bhutan.
- A lifelong appreciation for nature.
- His desire to lead a meaningful and sustainable life.
- Financial preparedness achieved through prudent saving and investing.
- The aspiration to contribute positively to society while living according to his values.

3. What entrepreneurial lessons emerge from Raj's farming journey?

The case demonstrates several entrepreneurial lessons:

- Begin cautiously and learn before expanding.

- Respect environmental limitations rather than forcing unsuitable business decisions.
- Diversify thoughtfully.
- Take calculated risks instead of speculative ones.
- Financial prudence improves resilience during setbacks.
- Continuous learning is essential in uncertain industries.
- Long-term profitability in agriculture is achievable when passion is supported by financial discipline, patience, and strategic planning.

4. Why did the Farmer Producer Organisation struggle?

The organisation faced challenges including:

- Limited awareness among farmers.
- Governance issues.
- High certification costs.
- Working capital shortages.
- Weak market linkages.
- Supply-chain constraints.
- Market price volatility.

5. Which strategic option would you recommend for Raj?

A balanced or hybrid approach appears most sustainable. Raj should continue farming at a manageable scale while combining it with teaching, voluntary financial education, consulting, and community engagement. This approach enables him to:

- Continue practising sustainable agriculture.
- Share practical knowledge with future managers.
- Remain financially secure.
- Continue contributing to society.
- Avoid excessive entrepreneurial risk.

6. What lessons does this case offer to professionals considering entrepreneurship?

The case highlights that:

- Passion alone is insufficient.
- Financial planning is essential.
- Calculated risk-taking is preferable to aggressive expansion.
- Continuous learning builds resilience.
- Sustainable success requires balancing personal values with economic viability, demonstrating that passion and profitability can coexist when supported by prudent planning, patience, and sound business strategies.
- Entrepreneurship should be guided by prudence, adaptability, and long-term thinking.

7. Discuss the importance of financial preparedness, strategic planning, and resilience.

Financial preparedness provides the confidence to pursue new opportunities without exposing one's family to unnecessary hardship. Strategic planning helps entrepreneurs evaluate opportunities realistically, while resilience enables them to learn from setbacks and continually reinvent themselves. Raj's journey demonstrates that long-term success is built not on avoiding failure, but on responding to challenges with wisdom, prudence, and adaptability.

Background Reading

Books

1. Northouse, P. G. (2021). *Leadership: Theory and practice* (9th ed.). Sage Publications.
2. Debasish Biswas, C. D. (2023). Entrepreneurship Development in India. Routledge Publishers.
3. Hill, N. (2014). Think and Grow Rich. Fingerprint! Publishing.
4. Holiday, R. (2014). Growth Hacker Marketing: A Primer on the Future of PR, Marketing, and Advertising. Portfolio Publishers.
5. K, Sundar. (2020). Entrepreneurship Development . Vijay Nicole Imprints Publishers.

6. Peter Thiel, B. M. (2014). Zero to One: Notes on Startups, or How to Build the Future. Crown Currency Publishers.

7. Ries, B. V. (2011). The Lean Startup : How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses. Crown Publishers.

8. Spedding, D. L. (2016). India: The Business Opportunity: A Practical Legal and Regulatory Handbook . Beck/Hart Publishing.

9. Spinelli, S. (2015). New Venture Creation: Entrepreneurship for the 21st Century. McGraw Hill Higher publishers

10. Stephen R. Covey (2020).The 7 Habits of Highly Effective People.30th Anniversary Edition.Simon & Schuster publishers

11. Case study: Selco-India, Industry News, Sector - Rural adoption, Solar — Standalone/ agriculture, *Case Focus:* Creating sustainable energy solutions for underserved communities.

12. Case study: Air Deccan: India's Low-Cost Airline Success , Captain G.R. Gopinath, Case Focus: A former army officer leaving a secure career to build India's first low-cost airline.

Experience of Using the Case

This case has been discussed with MBA, MMS, and PGDM students. Classroom discussions generated insightful perspectives on career transitions, financial independence, entrepreneurship, sustainability, resilience, and strategic decision-making. Students appreciated how Raj's journey demonstrated that success is not defined solely by corporate designations or financial wealth, but also by living according to one's values, making prudent decisions, respecting nature, and continuously learning throughout one's professional life. Students also appreciated that the case challenges the common perception that farming is economically unattractive by illustrating that agriculture can become a remunerative venture when pursued with careful planning, patience, prudent financial management, and strategic execution.

Case Study 04

Reinventing Success

The contemporary business environment has been characterized by rapid technological advancements, globalization, changing customer expectations, and increasing competition. Organizations have continuously sought professionals who could adapt to evolving business conditions, embrace innovation, and effectively manage change. In such an environment, career success has often depended not only on technical competence but also on an individual's ability to learn, unlearn, and relearn throughout different phases of life. The professional journey of Ramesh Vemuganti represented a compelling example of resilience, adaptability, continuous learning, and personal transformation.

Vemuganti's career spanned multiple domains, including engineering, sales, entrepreneurship, management, education, consulting, and corporate training. His journey demonstrated how professional setbacks could be transformed into opportunities for growth and how practical industry experience could later be leveraged to educate and inspire future generations. Throughout his career, he successfully navigated the challenges associated with entrepreneurship, corporate management, and academic engagement, ultimately establishing himself as a respected corporate trainer, motivational speaker, management consultant, and author.

The significance of his journey lay not merely in the positions he held or the achievements he attained but in his ability to reinvent himself at different stages of his professional life. Beginning his career in the computer hardware industry during a period when information technology was still emerging in India, he gained firsthand experience in sales, marketing, customer relationship management, and business operations. These experiences provided him with a practical understanding of market realities and organizational challenges. Like many entrepreneurs, Vemuganti also experienced business failure. His entrepreneurial venture, despite attracting customers

This case was developed by Jinal Lathia and Sulbha Raorane (St Francis Institute of Management & Research, Mumbai), Ashutosh Singh, Manisha Goswami, Gitali Choudhary, Pragalbh Sharma and Advitya Mahajan (Institute of Business Management, GLA University, Mathura), Jai Prakash Srivastava (Department of Management Studies, IIT, Roorkee) during the 16th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25 – 27, 2026.

and generating business opportunities, encountered significant operational and financial difficulties. The closure of his business represented one of the most challenging phases of his career. However, instead of allowing failure to define his future, he used the experience as a valuable learning opportunity. This ability to transform adversity into knowledge later became one of the central themes of his training programs and motivational sessions.

Over time, his professional interests gradually shifted from business operations to people development. His involvement in teaching, mentoring, and corporate training enabled him to influence students, professionals, entrepreneurs, and academicians. He increasingly recognized that the most valuable contribution he could make was not merely through managing businesses but through sharing knowledge and helping others develop their potential. His transition from engineer and entrepreneur to educator and trainer reflected the growing importance of knowledge management and human capital development in modern organizations. As industries evolved, the demand for professionals capable of combining technical expertise with managerial skills increased significantly. Vemuganti's educational background in engineering and management positioned him uniquely to bridge these domains.

Throughout his professional journey, he emphasized the importance of continuous learning, innovation, leadership, and ethical conduct. He strongly believed that education should extend beyond classroom instruction and focus on developing complete individuals capable of contributing meaningfully to society. His training philosophy promoted not only technical and managerial competencies but also life skills such as patience, perseverance, communication, and adaptability. Another notable aspect of his career was his commitment to integrating technology into learning and development processes. He consistently advocated the use of emerging technologies, including artificial intelligence, in education and professional training. According to him, educators needed to remain updated with technological developments to ensure that learning remained relevant in an increasingly digital world.

His contributions extended beyond training programs and classrooms. Through his books, articles, public speaking engagements, and professional associations, he shared insights on management, leadership, innovation, and professional development. His work influenced learners across educational institutions, corporate organizations, and professional bodies.

This case study examined the educational background, professional experiences, entrepreneurial journey, challenges, achievements, and contributions of Ramesh Vemuganti. It explored how he transformed practical setbacks into experiential capital and utilized his accumulated knowledge to create value for others. The case further highlighted the importance of resilience, lifelong learning, adaptability, and innovation in building a sustainable and impactful career.

Ramesh Vemuganti possessed a unique combination of technical expertise and managerial competence that significantly influenced his professional journey. He completed his Bachelor of Technology (B.Tech.) degree from Jawaharlal Nehru Technological University (JNTU) Campus College, one of the premier engineering institutions in India. Recognizing the growing importance of management knowledge in organizational success, he later pursued a Master of Business Administration (MBA) degree from Osmania University. This combination of engineering and management education provided him with a strong foundation for understanding both technological systems and business operations. His academic qualifications enabled him to approach problems from both technical and managerial perspectives. During a period when India's information technology industry was undergoing significant transformation, this interdisciplinary background proved highly valuable. It allowed him to understand technological innovations while simultaneously appreciating their business implications.

Over a professional career spanning more than four decades, Vemuganti accumulated extensive experience in information technology, computer hardware, networking services, sales, marketing, business management, consulting, and education. His career progression reflected his willingness to explore diverse opportunities and continuously expand his professional competencies.

He served in various leadership and managerial roles throughout his career, including positions such as Regional Manager, Vice President, Chief Executive Officer, entrepreneur, consultant, lecturer, and corporate trainer. Each role contributed to the development of different competencies and enriched his understanding of organizational dynamics. His association with reputed organizations such as PSI Data Systems, Unicorp, Modi Group, and Business Link provided valuable exposure to corporate environments and business operations. Through these experiences, he developed expertise in sales management, customer relationship management, technology implementation, business development, and organizational leadership.

While his early career focused primarily on business and technology, his later years increasingly emphasized education, training, and mentoring. This transition reflected his belief that knowledge sharing represented one of the most meaningful ways to contribute to society. His practical industry experience enabled him to provide learners with insights that extended beyond theoretical concepts and textbook knowledge. Throughout his career, Vemuganti demonstrated a strong commitment to professional excellence and continuous learning. His contributions to management education and professional development were recognized through several prestigious awards and honors. Among the most significant recognition he received was the "Outstanding Contribution to Management Education" Award conferred by MTC Global in 2014. This award acknowledged his sustained efforts in promoting management education, professional development, and learner empowerment. His contributions to educational institutions, corporate organizations, and professional associations played an important role in earning this recognition.

He was also honored with the "Member of the Year Award" by the Hyderabad Management Association (HMA) for the year 2011–2012. His association with HMA extended beyond membership. Having joined the organization in 1998, he actively participated in its initiatives and later assumed leadership responsibilities. His contributions helped strengthen professional learning and knowledge-sharing activities within the association. One of his notable initiatives at HMA involved introducing the practice of concluding every session with a concise summary of key learnings and takeaways. This practice enhanced participant engagement and improved knowledge retention. Over time, it became a widely adopted practice within the organization and beyond.

Apart from his professional and educational activities, Vemuganti also established himself as an author and thought leader. Recognizing the importance of documenting experiences and sharing knowledge, he authored several books focused on management, professional development, and personal growth. His books included: Moving Ahead of the Times, Reinvigorating Management, and Move Fast, Act Now. These publications reflected his practical experiences and provided readers with insights into leadership, management, innovation, and professional success. The books were particularly useful for young professionals, managers, entrepreneurs, and students seeking guidance on navigating complex business environments. In addition to authoring books, he published numerous articles on professional networking platforms and management forums. His writings addressed topics such as leadership, innovation, management practices, organizational development, career planning, and

technological transformation. Through these publications, he reached a broader audience and contributed to ongoing discussions within the management community.

His reputation as a trainer and speaker extended beyond India. He participated in various national and international forums, sharing his expertise on technology management, innovation, leadership, and professional development. His ability to communicate complex concepts in a practical and relatable manner earned him recognition among students, professionals, and academicians.

The combination of technical education, management expertise, corporate experience, entrepreneurial exposure, teaching engagement, and thought leadership established Vemuganti as a multidimensional professional. His background served as the foundation upon which he built a successful career spanning multiple industries and disciplines. His journey demonstrated that professional growth was not limited to specialization within a single field. Instead, it illustrated the value of interdisciplinary learning, adaptability, and continuous development in achieving long-term career success.

The professional journey of Ramesh Vemuganti illustrates how careers are often shaped not only by achievements but also by the ability to respond constructively to setbacks and changing circumstances. Beginning his career in the computer hardware industry, he developed strong technical and sales capabilities that encouraged him to pursue entrepreneurship. Motivated by the growing opportunities in the information technology sector, he established his own computer hardware business in the early 1990s. Although the venture generated promising customer orders and showed initial potential, sustaining the business proved challenging. Limited working capital, an underdeveloped distribution network, and operational constraints gradually affected business performance, eventually leading to the closure of the enterprise.

Rather than allowing this experience to define his professional identity, Vemuganti viewed it as a practical learning opportunity. The challenges of managing finances, coordinating supply chains, handling customer expectations, and making strategic business decisions provided insights that no classroom education could offer. These experiences strengthened his understanding of business realities and later became valuable examples that he would share with students and management professionals. The entrepreneurial setback became an important source of practical wisdom, shaping his approach to leadership and decision-making throughout his career. Following this phase, Vemuganti entered the corporate sector, where he held positions in organizations that demanded structured processes, teamwork, and disciplined

execution. Transitioning from the flexibility of entrepreneurship to the formal environment of large organizations requires a significant shift in mindset.

Adapting to organizational systems while maintaining an innovative outlook enabled him to develop stronger managerial capabilities and a broader appreciation of organizational effectiveness. These experiences also enhanced his ability to balance creativity with process orientation, an essential competency for business leaders. During this period, he was presented with opportunities that could have accelerated his career through relocation to other cities. However, he chose to remain in Hyderabad to fulfil his family responsibilities. Although this decision may have appeared to limit immediate career advancement, it reflected his belief that long-term professional success should be aligned with personal values and commitments. This balance between career aspirations and family priorities became a defining feature of his leadership philosophy.

A significant turning point came in 2002 when he joined Osmania University under the Confederation of Indian Industry (CII) programme as a lecturer. Entering the classroom exposed him to a new dimension of professional fulfilment. Engaging with students and connecting academic concepts with real business experiences allowed him to discover a passion for teaching, mentoring, and developing future managers. His industry background enabled him to bridge the gap between theoretical knowledge and practical application, making learning more relevant and engaging for aspiring professionals.

Recognizing the growing demand for experiential learning in management education, Vemuganti made another important career transition in 2004 by moving into corporate training and management consulting. Drawing upon more than two decades of experience across entrepreneurship, corporate management, and academia, he designed and delivered programmes that combined practical insights with management theory. Over time, he established himself as a respected corporate trainer, motivational speaker, author, and management consultant, helping organizations and individuals enhance their leadership, communication, and managerial capabilities.

Vemuganti's career demonstrates that professional success is rarely a linear progression. Instead, it evolves through continuous learning, thoughtful career choices, resilience in the face of adversity, and the willingness to transform experience into knowledge that benefits others. His journey offers a compelling example of how setbacks, personal values, and strategic career transitions can collectively contribute to long-term professional excellence and meaningful leadership. Vemuganti believes

that effective management education should bridge the gap between theoretical knowledge and practical application. His training methodology emphasizes experiential learning, encouraging participants to analyse business situations, solve real-world problems, and develop critical thinking rather than relying solely on textbook knowledge.

Drawing extensively from his own professional experiences, he incorporates case studies, simulations, business examples, group discussions, and reflective learning activities to create an engaging learning environment. His sessions also encourage participants to embrace technological advancements, particularly Artificial Intelligence (AI), as tools for improving managerial decision-making and organizational effectiveness. A major conceptual contribution of his training philosophy is the **DIKTI Model**, which illustrates the progression from raw information to innovation:

- **Data** – Raw facts and figures.
- **Information** – Organized and meaningful data.
- **Knowledge** – Understanding developed through interpretation and experience.
- **Technology** – Practical application of knowledge.
- **Innovation** – Creation of value through new ideas, improved processes, and competitive advantage.

According to Vemuganti: *"Selective Data becomes Information; Selective Information becomes Knowledge; Application of Knowledge becomes Technology; and Technology ultimately drives Innovation."* His methodology is characterized by:

- Experiential and case-based learning.
- Interactive classroom discussions.
- Integration of industry practices with academic concepts.
- AI-enabled teaching and digital learning approaches.
- Leadership and life-skills development.
- Reflection on practical experiences for continuous improvement.

His commitment to improving learning practices was also evident during his tenure as President of the Hyderabad Management Association, where he introduced the practice of summarizing key learning points after every expert session. This initiative

enhanced knowledge retention and was later adopted as a standard practice. Over the past four decades, Vemuganti has positively influenced thousands of students, executives, entrepreneurs, faculty members, and management professionals through training, mentoring, consulting, and academic engagement. His contributions extend beyond conventional classroom teaching and include:

- Corporate training programmes focusing on leadership, sales, innovation, technology management, and organizational effectiveness.
- Faculty Development Programmes (FDPs) promoting innovative teaching pedagogies and outcome-based education.
- Entrepreneurship mentoring and startup guidance.
- Motivational and transformational leadership sessions.
- Consultancy assignments in marketing, business development, and supply chain management.
- Academic collaborations with higher education institutions.

He has served as a resource person at several reputed institutions, including JNTU, the University of Hyderabad, Sangli University, IITs, and other leading educational organizations. In 2017, while serving as a research reviewer for five universities in Bangladesh, he recommended strengthening classroom engagement through innovative pedagogical practices and quality enhancement initiatives under IQAC frameworks. His ability to connect theoretical concepts with real-life business experiences has made his sessions highly relevant and impactful, enabling learners to develop analytical thinking, leadership competencies, and practical managerial skills.

Ramesh Vemuganti's sustained professional success is the result of a combination of personal values, continuous learning, and the ability to adapt to changing business environments. Throughout his career, he demonstrated a strong commitment to lifelong learning by consistently upgrading his knowledge and skills to keep pace with developments in technology, management, and education. This willingness to learn enabled him to remain relevant across multiple industries and successfully transition from the corporate world to academia and management consulting.

One of the defining characteristics of his career has been his ability to transform challenges into opportunities for growth. Instead of allowing entrepreneurial setbacks to discourage him, he treated them as valuable learning experiences that strengthened his understanding of business operations, strategic planning, financial management,

and customer relationships. These practical insights later became an integral part of his teaching and corporate training programmes, enabling him to connect theoretical concepts with real-world business situations.

His extensive professional experience spanning more than four decades across sales, marketing, information technology, operations, and management further enriched his ability to mentor students and corporate professionals. Complementing this experience were his strong communication and presentation skills, which enabled him to simplify complex management concepts, engage diverse audiences, and inspire individuals to enhance their professional capabilities. His effectiveness as a trainer and motivational speaker stemmed not only from his knowledge but also from his ability to communicate with clarity, confidence, and authenticity.

Another significant contributor to his professional growth has been his entrepreneurial mindset and adaptability. Whether establishing his own business, working within structured corporate organizations, entering academia, or transitioning into corporate training and consulting, he consistently embraced change and viewed new opportunities as avenues for growth. His willingness to take calculated risks while adapting to evolving market demands allowed him to build a dynamic and diversified career.

Underlying these achievements has been a genuine passion for teaching, mentoring, and developing future leaders. His interactions with students and professionals reflect a commitment to knowledge sharing that extends beyond classroom instruction, focusing on practical application, critical thinking, and leadership development. Recognizing the increasing importance of digital transformation, he also incorporated emerging technologies and Artificial Intelligence into management education, encouraging learners to develop future-ready competencies required in modern organizations. Throughout every stage of his journey, Vemuganti maintained a strong foundation of professional ethics, integrity, and resilience. His value-based approach, perseverance during difficult periods, and commitment to excellence earned him credibility and respect across industry and academia. Collectively, these qualities demonstrate that long-term professional success is built not on a single achievement but on continuous learning, adaptability, ethical leadership, and the consistent ability to create value for individuals and organizations.

Ramesh Vemuganti's professional journey illustrates that long-term career success is shaped not merely by formal academic qualifications but by an individual's ability to adapt, learn continuously, and respond positively to change. His experiences across

entrepreneurship, corporate management, academia, and corporate training demonstrate that professional growth is an ongoing process of acquiring new knowledge, developing practical skills, and embracing evolving opportunities. Each stage of his career reflects the importance of remaining relevant in a dynamic business environment through continuous learning and self-improvement.

One of the most significant aspects of his journey is the way he transformed entrepreneurial setbacks into valuable learning experiences. Rather than viewing business failure as the end of his professional aspirations, he used it to gain practical insights into strategic planning, financial management, operations, and customer relationship management. These experiences not only strengthened his managerial capabilities but also enabled him to enrich the learning experiences of students and professionals by connecting management theories with real-world business situations. His career highlights the value of experiential learning as an essential component of management education.

The transition from industry to academia further demonstrates the importance of bridging the gap between theoretical knowledge and practical application. By integrating his extensive industry experience into classroom teaching and corporate training, he contributed to developing learners who were better prepared to meet organizational expectations. His emphasis on practical problem-solving, decision-making, and industry relevance reflects the growing need for management education to align closely with business realities and enhance graduate employability.

Another notable feature of his professional approach has been his willingness to adopt emerging technologies. Recognizing the transformative impact of digitalization and Artificial Intelligence on organizations and education, he incorporated these advancements into his teaching and training practices. This proactive approach reflects the evolving role of educators as facilitators of innovation who prepare learners to succeed in technology-driven workplaces.

Throughout his career, Vemuganti consistently demonstrated that effective leadership extends beyond technical competence. His resilience during challenging periods, commitment to ethical values, empathy towards learners, patience in mentoring, and dedication to lifelong learning contributed significantly to his professional credibility and influence. His work also reflects the importance of nurturing life skills, ethical decision-making, social responsibility, and environmental awareness alongside functional management competencies. By encouraging analytical thinking, adaptability, and problem-solving from an early stage of professional development,

his journey underscores the qualities required for creating responsible, competent, and future-ready managers capable of leading organizations in an increasingly complex business environment.

Questions

1. What factors contributed to the failure of Vemuganti's entrepreneurial venture?
2. How did he transform business setbacks into experiential investments and career opportunities?
3. Evaluate the effectiveness of the DIKTI model in today's digital economy.

Teaching Note

Reinventing Success

1. Synopsis of the Case

This case examines the professional journey of Ramesh Vemuganti from engineer and entrepreneur to educator, consultant, author, and corporate trainer. The case highlights resilience, entrepreneurial failure, lifelong learning, leadership, adaptability, knowledge management, innovation, and career reinvention. It demonstrates how setbacks can become learning opportunities and how continuous learning contributes to sustainable professional success.

2. Target Learning Group

MBA, PGDM, Executive MBA students, Entrepreneurship Development Programmes, Leadership Development Programmes, Faculty Development Programmes, and Management Development Programmes.

3. Learning Objectives and Key Issues

Students should understand entrepreneurial failure, resilience, career reinvention, experiential learning, leadership, technology integration, knowledge management, and lifelong learning. Key issues include business failure, adaptability, innovation, leadership development, and the DIKTI model.

4. Teaching Strategy

Session Duration: 90–120 minutes.

Introduction and icebreaker (15 min), individual case reading (15 min), group discussion (25 min), class discussion (25 min), conceptual integration (15 min), reflection and conclusion (10 min). Faculty may connect the case with leadership theories, experiential learning theory, entrepreneurship concepts, and career development frameworks.

5. Questions for Discussion

1. What leadership qualities are demonstrated in the case?

Several leadership qualities are evident throughout the case. These include resilience in overcoming setbacks, adaptability in changing career paths, ethical conduct in professional decisions, commitment to lifelong learning, perseverance during difficult periods, and responsibility toward family and society. His transition from entrepreneur to educator further demonstrates transformational leadership, as he focused on developing and inspiring others through knowledge sharing and mentoring.

2. Why is lifelong learning important in today's business environment?

Modern business environments are characterized by rapid technological change, globalization, digital transformation, and evolving customer expectations. Lifelong learning enables professionals to continuously update their knowledge and skills, thereby maintaining employability and professional relevance. Mr. Vemuganti's success demonstrates how continuous learning, professional development, and openness to new technologies such as Artificial Intelligence can create long-term career sustainability and growth.

3. How did industry experience improve his teaching effectiveness?

Vemuganti's extensive industry experience allowed him to bridge the gap between theory and practice. Instead of relying solely on textbook concepts, he used real-world examples, business cases, entrepreneurial experiences, and corporate insights to make learning more engaging and relevant. His practical knowledge enhanced students' understanding of managerial challenges, decision-making processes, leadership issues, and business realities. As a result, learners were able to connect academic concepts with workplace applications more effectively.

6. Analysis of Data

The case is qualitative in nature.

SWOT Analysis:
Strengths – Industry expertise, communication skills, adaptability.
Weaknesses – Initial financial limitations.
Opportunities – Consulting, training, AI-enabled learning.
Threats – Rapid technological changes and market uncertainty.

Critical Success Factors:
Lifelong learning, resilience, leadership capability, communication skills, entrepreneurial mindset, ethical behavior, and technology adoption.

7. Background Reading

Suggested readings include works by Peter Drucker, Peter Senge, David Kolb, John Kotter, Daniel Goleman, Carol Dweck, and research articles on leadership, entrepreneurship, innovation, AI, and management education.

8. Experience of Using the Case

Students generally relate strongly to the entrepreneurial failure and career transition themes. Discussions focus on resilience, lifelong learning, leadership, and employability. The DIKTI model often stimulates discussion on AI and digital transformation.

Case Study 05

Wooble: Betting on Skills at the Workplace

Introduction

India produces millions of graduates every year in engineering, management, design, and analytics. Most are evaluated on college brand, attendance, and a paper resume, not on what they can do. Companies waste months interviewing under-prepared candidates. Talented individuals from non-metro colleges get passed over for graduates from Tier-1 institutions with identical skills. Akash Jaiswal founded "Wooble Software Private Limited" to tackle this worldwide problem. The founder and CEO of Wooble, Akash Jaiswal had graduated from KIIT University in Bhubaneswar. After graduation he spent a period doing freelance product work and gaining experience at Team Hi-Tech Pvt. Ltd. This exposure that gave him something more valuable than a credential: he saw the hiring market from both sides simultaneously. He knew what students wanted to show. He knew what employers struggled to see. The asymmetry was glaring. He found a solution to fix a broken hiring system where credentials beat competence.

By replacing resumes with real-task challenges (Briefs), hackathons, and verified portfolios, Wooble built India's first proof-of-work hiring marketplace, serving early-career tech talent including developers, designers, data analysts, product managers, and MBA professionals (0-3 years' experience). In four years, Wooble grew from a 3-intern startup in an incubation centre to a PAN India platform serving 200+ companies and 2.24 lakh+ registered candidates, facilitating 5,877+ placements, earning national press features (Hindustan Times Brunch, Times of India), and building towards a Rs. 7 Cr+ ARR run rate. By 2022, Outlook India had named him one of the fifteen youngest entrepreneurs to watch. By 2023, Fox Story had placed him among its 100 Emerging Entrepreneurs, and GlantorX had listed him among 100 Future Leaders. These were not transformative endorsements, but they reflected something real: a young founder from Odisha was building something that was transforming hiring system.

This case was developed by Chitralekha Kumar (Prin. L. N. Welingkar Institute of Management Development and Research, Mumbai), Pooja Mishra (GLA University, Mathura), Rakhi Pitkar (St. Francis Institute of Management and Research, Mumbai), and Praneeta Jain (Shri Vaishnav Institute of Management and Science, Indore) during the 16th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25-27, 2026.

The Three Interlocking Sides

Jaiswal structured Wooble around three participant groups, each providing something the others needed and, each needing something the others provided. Students and early-career builders came to Wooble seeking a way to differentiate themselves in a market where their college offered limited help. Students at Wooble, completed briefs and built portfolios, contributing the raw material, demonstrated work that made the platform interesting to everyone. Companies joined for the opposite reason: they were tired of wading through résumés that told them almost nothing about whether a candidate could perform. By posting a hackathon brief on Wooble, the company got to see how candidates solved problems before even extending an interview. Domain reviewers occupied the third corner of the triangle. These were practitioners - working professionals, academics, or senior alumni who scored and gave feedback on submissions. Their presence was the most important structural element of the entire model, because without credible review, a Wooble portfolio was no more trustworthy than a LinkedIn post. Reviewer quality was the key element. Exhibit 1 represents the Woobles architecture.

Exhibit 1 -Wooble's Participant Architecture

Participant	What They Do on Wooble	What They Receive	Contribute to Others
Students / Early-Career Builders	Participate in company hackathons; build and publish portfolios	Credible, reviewable proof of work; expert feedback; visibility to hiring teams	Real solutions to company problems; platform engagement volume
Companies	Post live briefs (hackathons); browse talent portfolios	Pre-vetted talent pool; reduced screening cost;	Hiring demand that draws more students to the platform
Domain Reviewers	Score and critique submissions on technical and strategic dimensions	Professional recognition; community standing; first-mover access to emerging talent	The quality signal that makes portfolios credible.

The Cold-Start Solution: Going Institutional

Most marketplace founders, when confronting the cold-start problem, choose one side to subsidise and build that side first, banking on it to attract the other. Jaiswal made a different choice — or, perhaps more accurately, he found a shortcut that made the choice less urgent. He went to universities. The most consequential of these institutional moves was an MoU signed between Wooble and Biju Patnaik University of Technology- BPUT -the largest technical university network in Eastern India, with more than 150 affiliated colleges spread across Odisha and neighbouring states. The platform also attracted recognition from several government and industry bodies, adding further layers of institutional legitimacy that a bootstrapped startup from Bhubaneswar could not otherwise have purchased (Exhibit 2).

Exhibit 2- Ecosystem Recognition

Recognised and Supported By
Google for Startups
MeitY Startup Hub -Ministry of Electronics & Information Technology, Government of India
STPI — Software Technology Parks of India
Startup India — DPIIT, Government of India
Startup Odisha / O-Hub — State Government Incubator, Bhubaneswar
MoU with BPUT — 150+ affiliated colleges; largest technical university network in Eastern India

Sources: Wooble (2025); Startup Odisha (2023).

Building The EdTech Context

Wooble was born into an Indian EdTech sector in the middle of an identity crisis. The pandemic years of 2020 and 2021 had generated a kind of funding delirium. With schools and campuses closed and hundreds of millions of students abruptly dependent on screens, investors poured money into online education at a pace that had no historical precedent. By 2021, EdTech had become India's third-largest funded sector - absorbing between $4.7 and $4.8 billion in a single year (Inc42, 2023). But when campuses reopened, students went back to them. The demand curves that had justified $22 billion valuations, proved to be distortions of emergency, not permanent shifts in

behaviour. Funding collapsed: from $2.4 billion in 2022 to roughly $267–283 million in 2023, an 88 percent year-on-year decline (Inc42, 2023; The PIE News, 2024). The sector that had been feted as India's great educational democratiser was, suddenly, being talked about as a cautionary tale. Jaiswal looked at it as an opportunity.

The industrial growth and advancement had brought out a technical flaw in the industry- academia linkage that Jaiswal's model was proposed to address. The other resume-based platforms were creating impressive certificates, badges, awards etc. without improving the skill-based hiring levels that really mattered. The three prime solutions that Wooble Team (Exhibit 3) curated were:

1. Students (technical roles, MBA graduates, designers, analysts) - Create a verified portfolio by thoroughly completing company Briefs and hackathons. Get hired on work, not words.
2. Companies- Post Briefs (real tasks), run hackathons, and access a screened pool of verified talent via the Engage recruiter dashboard.
3. Wooble Nexus - An ongoing industry speaker series (18+ episodes) connecting early-career professionals with leaders from TCS, Microsoft, HighRadius, and more.

Wooble covered placements across tech roles (software development, data, cloud, design, product) as well as business and MBA-track roles (business development, operations, product management, analytics). Placements began in Q1 2023 and grew consistently quarter-on-quarter. Exhibit 4 represents the quarterly placement data.

Exhibit 4: Placements Facilitated (Quarterly)

Quarter	Placements	Cumulative Total
Q1 2022	0	0
Q2 2022	0	0
Q3 2022	0	0
Q4 2022	0	0
Q1 2023	5	5
Q2 2023	27	32
Q3 2023	144	176

Q4 2023	257	433
Q1 2024	290	723
Q2 2024	340	1,063
Q3 2024	390	1,453
Q4 2024	436	1,889
Q1 2025	400	2,289
Q2 2025	440	2,729
Q3 2025	470	3,199
Q4 2025	513	3,712
Q1 2026	650	4,362
Q2 2026 (till Jun)	1,540	5,877+

Source: www.wooble.org

The Q2 2026 acceleration reflected PAN India company onboarding and the BPUT MoU unlocking structured campus placement pipelines across 150+ affiliated colleges. Wooble served candidates across multiple tracks -software developers, data analysts, cloud engineers, UI/UX designers, product managers, and MBA graduates in business, operations, and analytics roles (Exhibit 5). Wooble's company onboarding covered the technical hiring needs including the startups to the enterprises like Tata Steel that required large-scale verified hiring (Exhibit 6) across various tech and management roles.

Exhibit 5: Candidate (User) Growth

Period	Users Registered	Growth (YoY)	Key Driver
2022 (Jul-Dec)	761	—	Platform launch, Odisha campus outreach
2023	11,414	~1,400%	Campus partnerships, Wooble Nexus
2024	85,101	~646%	South India expansion, Startup Mahakumbh
2025	1,00,000+	~18%	PAN India, AI-Day, Bangkok expo
2026 (up to Jun)	2,24,591	~125%*	*Annualised run-rate

Source: www.wooble.org

Exhibit 6: Company Onboarding

Year	New Companies	Coverage
2022	0	Pre-revenue, creating phase
2023	7	Odisha- companies
2024	22	Odisha & the neighbouring states
2025	43	Odisha + South India
2026 (till Jun)	200+	PAN India

Source: www.wooble.org

The Crossroads

With the rapid growth, Wooble faced financial sustainability challenges. Several monetisation options emerged: Recruitment success fees charged to companies; Premium private hackathons; Advanced portfolio tools for students; Recruiter analytics dashboards. Each option had its trade-offs. Charging fees from companies would align with outcomes, but charging students risked loss of trust and reduced adoption. The question of monetisation became challenging to Wooble's future.

Questions

1. What should Wooble prioritize: expansion into new states or strengthening current partnerships?
2. Discuss the most sustainable strategy for Wooble's growth?
3. How can Wooble remain a focused proof-of-work platform?

Teaching Note

Wooble: Betting on Skills at the Workplace

1. A Synopsis of the Case

The case discusses Wooble Software Private Limited, an EdTech and HR-Tech platform based in Bhubaneswar, Odisha, founded by Akash Jaiswal. It is set up against the backdrop of the Indian job market and highlights a large asymmetry. On one hand there are students wanting to show their capabilities, and on the

other hand the employers struggle to identify the real talent. Wooble addresses this challenge of "credibility". It operates as a connecting link between students, companies, and domain reviewers. The candidates present their work through hackathons and real time problem solving. By mid-2025, after securing a massive institutional partnership with Biju Patnaik University of Technology (BPUT), the platform has strong momentum. However, it faces an existential crossroad. Jaiswal must resolve three critical strategic tensions: whether to expand geographically or consolidate regionally, how to survive its financial runway without stalling network growth, and whether to remain a lean "proof-of-work" layer or evolve into a broader, capital-intensive HR-Tech platform.

2. The Target Learning Group

This case is suited to graduates as well as post graduate students.

- It is relevant for courses around Entrepreneurship, Strategy, Digital Markets, and Strategic Management.
- It is also suitable for Executive MBA programs, economics, as well as startup scaling programs.

3. The Learning/Teaching Objectives and Key Issues

Learning/Teaching Objectives:

- Analyze the "cold-start problem" and network effects inherent in building multi-sided digital platforms.
- Evaluate different monetization strategies for digital marketplaces and assess their impact on user trust and platform identity.
- Assess the strategic trade-offs between rapid geographic expansion and regional consolidation for a growing startup.
- Understand product architecture decisions, specifically the choice between deep niche integration and broad platform expansion.

Key Issues in the Case:

- **Platform Economics & Runway:** Balancing the foundational platform logic—that network density must precede value extraction—against the pressing reality of a limited financial runway.

- **Monetization:** The company must identify options like a recruitment fee, or a private hackathon for companies, or student freemium features.
- **Corporate Identity:** Identify ways for revenue and architectural models will help to understand whether Wooble becomes a recruiting tool, an EdTech platform, or a talent marketplace.

4. The Teaching Strategy

Opening the Case Discussion (Trigger Questions):

- "Why did Akash Jaiswal decided to keep Wooble free for students? (Guide students to discuss network density and the cold-start problem).
- "What is the fundamental difference between solving the 'discovery problem' and the 'credibility problem' in hiring?"

5. Question for Discussion

The following questions are designed to develop critical thinking ability and discussion around platform strategy, network effects, business model innovation, and entrepreneurial decision-making.

1: Should Wooble prioritize expansion into new states or deepen its current institutional partnerships?

- Network effects in multi-sided platforms
- Geographic expansion versus market penetration strategies
- Role of institutional partnerships in reducing customer acquisition costs
- Trade-off between scale and depth
- Resource allocation decisions in startups

2: Discusss sustainable monetization strategies for Wooble?

- Fee model for Recruitment success
- Exclusive hackathons for enterprises
- Subscription-based recruiter analytics
- Personalised portfolio services
- Risks with charging fees from students
- Hybrid revenue model

3: Should Wooble remain a proof-of-work hiring platform or evolve into a complete HR-Tech ecosystem?

- Strategic focus and diversification
- Platform ecosystem aspects
- Competitive positioning
- Growth strategies for digital platforms

4: Discuss the Venture Capital Valuation and Financing Decision

- Determine the valuation of Wooble
- Identifying the valuation approach would be most appropriate at this
- Stage of the company's lifecycle.
- Key financial and non-financial factors for venture capital investors

5: What Capital Structure and financing strategy should Wooble adopt?

Among the following financing alternatives, which would be the most suitable source of capital for Wooble at its current stage of development?

- Angel Investment
- Venture Capital
- Debt Financing
- Convertible Notes
- Government Grants and Startup Schemes

6. Analysis of Data

The exhibits in the case provide important quantitative evidence regarding Wooble's growth trajectory.

A. Placement Growth Analysis

Year	Cumulative Placements
2023	433
2024	1,889
Mid-2026	5,877+

Observations

- Placement activities commenced in Q1 2023, Placements increased from 433 in 2023 to 1,889 in 2024, representing approximately 336% growth.
- By June 2026, cumulative placements reached 5,877+ and indicated accelerated market adoption.
- The highest growth was after institutional partnerships and PAN India expansion.

B. User Growth Analysis

Year	Registered Users
2022	761
2023	11,414
2024	85,101
2025	100,000+
Jun-26	224,591

Key Findings

- User growth demonstrates strong network effects.
- Growth rate exceeded 1,400% during early expansion.
- Institutional collaborations and national outreach significantly accelerated user acquisition.
- Platform achieved substantial scale.

C. Company Onboarding Analysis

Year	Companies Onboarded
2023	7
2024	22
2025	43
2026	200+

Interpretation

- Growth in company participation confirms increasing employer acceptance.
- Institutional legitimacy reduced perceived risk for recruiters.
- The platform successfully transitioned from regional to national operations.

D. Strategic Analysis Using Network Effects Theory

Characteristics of a multi-sided platform:

Platform Side	Value Created
Students	Portfolio creation and employment opportunities
Companies	Access to verified talent
Domain Reviewers	Credibility and quality assurance

The increasing number of participants on one side created positive externalities for the other two sides, leading to strong indirect network effects.

8. Experience of using the case

The case study was administered to PGDM students. Number of Participants were 120 (2 Divisions)

Sl No	Attributes	Remark
1	Content	The students were able to articulate the content of the Case Study
2	Teaching & Learning Objectives	The students were able to assimilate the information and analyse the Case Study
3	Process and approach	The exercise was conducted as group activity to draw inferences from each group.
4	Students experience	The students were able to relate to the challenges faced during placement process. The usability of this skill-based platform like Wooble was clearly visible to them in the VUCA world.

Case Study 06

Growing Through Trust, Technology and an Inclusive Business Model

Introduction

In recent years, most of the educational institutions have given great importance to developing strong alumni networks, which pertain to managing and sustaining long-term relationships with former students. These alumni have been considered mentors, donors, industry partners, recruiters, and ambassadors who will contribute to their educational institutions in their alma mater. Many institutions are understanding the significance of this fact, but still they're struggling to maintain their meaningful and continuing relationship with the alumni. Indeed, if you examine their database, it is reasonable to say that these databases become obsolete, communication has become uneven with alumni, and the opportunities that are offered to their current student cohorts for guidance, mentoring, and placements, even institutional building, have all been frequently lost due to the lack of a structured system and dedicated resources to support the cause. Having been actively involved in the alumni affairs of his alma mater for many years, with the last six years as the Vice President of the Association, Chandra Shekhar Chitrala, founder of AlumNetworks realized that:

1. After graduating, the connection between the institute and alumni drops off, and by the time the alumni are in a position to give back, both connection and motivation are very low.
2. The growth of social media has seen alumni getting together – batch-wise as well as institute-wise. But institute presence and engagement are missing as alumni can reap the benefits of their network.
3. While institutes would like to increase engagement with alumni, all existing options require regular expenditure, and due to this, alumni engagement is seen as a cost centre by the management without any visible returns, because of which

This case was developed by Avnish Sharma (Institute of Business Management, GLA University Mathura, Uttar Pradesh), Ganga Susheel Warriar and Rosie Murray (St. Francis Institute of Management and Research, Borivali, Mumbai) during the 16th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25-27, 2026.

only minimum resources are allocated to this activity, thereby leading to a vicious cycle of no returns and consequently even lower allocation of resources towards alumni engagement.

4. For education to meet the needs of the future, it was essential that educational institutions needed to tap the alumni for the funds needed to make the current education system ready to impart the knowledge and skills needed by students to face the challenges that would face them in the future. This is what the top educational institutions in the world are able to do, and what needs to be done by all others too.

Realizing that this was a problem faced by almost all educational institutes, AlumNetworks Private Limited was founded in 2022 with an innovative business model where the entire alumni engagement platform would be made available to the institute or alumni association at ZERO cost. The platform would include a cutting-edge alumni portal, systems and processesfor improving alumni engagement by students, faculty and admin, and finally, a weekly alumni newsletter - AlumZine that goes out to all alumni on the platform, which, along with information about happenings on campus, has a host of other content that alumni would be interested in. The AlumZine content also included offers from premium brands, and when alumni utilized these offers, after deducting costs, AlumNetworks would share the balance amount paid by the brands with the institutes or associations. This brought two benefits:

1. Educational institutes and alumni associations could, for the first time in the world, leverage their alumni network without having to invest a single penny, and
2. Again, for the first time in the world, allow alumni to contribute to their alma mater, not by dipping into their savings, but through their regular purchases, where they actually got to save, thanks to their alumni status

The innovativeness of this model was such that both Startup India and Startup Odisha have found AlumNetworks worthy of financial grants. AlumNetworks was headquartered in Bhubaneswar, Odisha as the founder was based there. However, this brought its own set of challenges - as a startup based on technology and marketing/ advertising, it needed very skilled professionals to look after these domains. While there was enough talent in Bhubaneswar in terms of developers, finding someone to lead the marketing function was a huge challenge. This is when the company took a bold step of having the entire management team working remotely. While Chandra

Shekhar, the CEO, was based in Bhubaneswar, the Chief Marketing Officer, Shivank Sidhu, was operating out of Gurugram. Similarly, the CTO and COO were based out of Pondicherry and Bengaluru, respectively. The development and operations teams were dispersed, with some operating out of an office at STPI Bhubaneswar and the rest operating remotely across India. This not only allowed the company to save in terms of infrastructure costs; it also allowed it to find and hire the best possible resources for the roles - something that would not have been possible if only people based at Bhubaneswar had to be considered.

Stages of Progress

Like all startups, AlumNetworks too has evolved to where it is now as per the usual stages that startups go through. The first is the idea stage where the idea originates and is subject to vigorous checks. Only after this was successful did it go to the next stage - initial idea validation through a Minimum Viable Product (MVP). This was done in two phases: a very basic MVP was quickly developed and used to get the first investors, and using these funds, a more feature-rich MVP was developed and used to onboard the first institute, and AlumZines were first sent out in July 2023.

These proved that the assumptions in the business model of at least 20% opens and 1% clicks were valid, and using these results, more funds (total around Rs.1.20 crores) were raised to build the Proof-of-Concept products that included a scalable alumni portal along with an accompanying Admin portal to generate and send AlumZines, as well as provide reports on their performance. Using the POC product, 10 institutes have been taken on board the platform, ensuring that a variety of institutes, ranging from universities to schools, colleges, and professional institutes, were a part of this mix. The POC too proved without and doubt over a period of two years that the fundamental assumptions were correct and once the full tech backbone was built, it would definitely be successful and had the potential to become a Unicorn.

The next stage required the company to raise its first institutional round (estimated around one million dollars), since for it to be scalable - an essential requirement for any startup- it now needed to have an automated system in place where institutes could sign up, give their information, and get their alumni portal live with minimal human intervention. Similarly, brands too would need to be able to sign up, place their offers, see the responses as well as their invoices, and pay them there itself. And finally, the platform needed to generate and send out the weekly AlumZines to all alumni on the platform with as little human intervention as possible since there would be thousands of institutes, each with their own unique AlumZines. However, due to

the changes in the startup ecosystem, pre-revenue startups like AlumNetworks found it extremely difficult to raise the funds needed to build the tech backbone essential for scaling up, even though the base assumptions had all been proved to be correct and there was great interest from educational institutions across the globe to come on the platform (already more than 100 institutes have signed up).

When almost all options were running out, Chandra Shekhar decided to take up the mantle of building the tech backbone himself using AI tools that had now become available. Starting with Perplexity and then moving on to Gemini, he now uses Claude to build the applications. The Version 2 of the alumni portal is already built, and a couple of institutes have already been onboarded on it. Now work is on for the rest of the applications, including the automated AlumZine creation and sending and the automated institute signup and alumni portal creation. Once these too are ready, AlumNetworks will be able to quickly scale up the number of alumni on the platform from around 35,000 now to more than a few lakhs so that it can begin to generate revenue. Once this is done, they will go for their first institutional fund raise to scale up operations globally.

Growth Beyond Technology

AlumNetwork has demonstrated that a startup's success is not solely dependent on technology. The dimensions of this business model "Zero investment and passive contribution by alumni members" is so unique and enriching for the entrepreneurs. AlumNetwork proved that its portal can be a revenue generating asset for the institutions. The institutions without spending a penny on the setup or on the maintenance of the portal could generate revenue through this platform and that too without asking alumni for donation. Just by ensuring high open-rates (over 20%) and click-through rates (over 1%) AlumNetwork could generate revenue through brand payouts. Now alumni members through the offers extended through AlumZine newsletters, can successfully contribute to their alma mater passively through everyday purchases, while institutes continue to engage their alumni with zero upfront investment.

A Distributed Organizational structure – instead of procuring all the talent force from Bhubaneswar, the company opted for remote management organizational structure with a CEO in Bhubaneswar, CMO in Gurugram, CTO in Pondicherry and COO in Bengaluru. This was again a very strategic and unique decision which filled the gap of local talent shortage, gave a competitive advantage of top-tier leadership, reduced the infrastructural cost and built a resilient and diverse organisational culture. Within

a brief span of time, AlumNetworks has established itself as one of the influential and promising technology partners for a significant number of the educational institutions in India. The company is no longer known as a software provider.

Instead, it has positioned itself as a company which assists the academic institutions to build their enduring relationship with alumni, and provide a platform which enabled these institutions to sustain their updated alumni databases, enabling mentoring programs, helping in organizing reunions, managing fundraising campaigns, extending various career services, and generating data-driven insights for improved institutional planning. These services entirely help these academic institutions in reducing administrative efforts and encouraging the enhanced alumni participation. The leadership team of this company believed that opportunities must extend beyond India and its educational hub. This alumni engagement has become a global priority for the universities across the globe, which aim to strengthening the relationship with their graduates through the various digital platforms.

This collectively encouraged AlumNetworks to explore numerous opportunities to expand its service internationally and globally through creating a country's specific alumni chapters, partnering with the top universities and industry bodies, and offering and delivering flexible subscription models suitable for the institutions of diverse sizes. The company management has realized that in the post-COVID-19 era, educational institutions have fundamentally changed their way of engaging with alumni. This all resulted from the rapid digital transformation and diverse digital advancements happening in the current days. Online mentoring sessions, virtual reunions, seminars, webinars, several professional networking events, these all become widely prevalent nowadays. Social platforming network such as LinkedIn and added powerful communication tools like WhatsApp, Telegram, and Zoom clearly demonstrated that meaningful alumni engagement is no longer shaped and restricted by the geographical boundaries.

Indeed, for the company like AlumNetworks, these numerous digital platforms act as competitors, therefore the company is trying to develop its approach towards developing more comprehensive alumni engagement ecosystems which can support the academic institutions in a more effective way. This organization technology strategy is built on the fundamental concept of automation and intelligent decision support system. Use of artificial intelligence is expected to help the academic institutions in personalizing their communications, identifying influential alumni across nation and world, encouraging fundraising initiatives, recommending mentoring opportunities,

and providing the actionable analytics for better decision-making processes in the varied institutions. Indeed, the development of automation has provided the advantage to the academic institutions in terms of reducing administrative activities and helping them to focus on the relationship building rather than just keeping the routine record management.

Even though this platform has offered several advanced features, still the leadership team has noted the different variations in adoption of technology across varying institutions. Some of the academic institutions readily embracing AI-enabled alumni management because of its strategic value, while few others still remain hesitant due to the issues of its implementation and related complexity, employee resistance, training and development requirement for using the same, and moreover, due to the uncertainty about the ROI on the use of this system and software solutions. Management has recognized that increasing technology acceptance would not only require the product innovations but also the demonstrations, change management initiatives, diverse user training programs, and incessant customer support assistance. This continuous development strengthened the company's confidence, at the same time brought the variety of managerial challenges.

As the years go by, the number of educational clients has increased. Customer expectations are beginning to rise and change. Now, educational institutions were no longer just only purchasing these software solutions, but anticipate the continuous support, customized services, on-time implementations, and long-term partnerships with the organization. All kinds of institutions are having their own administrative processes, strategic priorities, and alumni culture, so implementing the standard solution across different academic institutions now become a challenging task for this company. The management of the organization realized that sustaining service quality while expanding the operation would require a lot of capabilities, which is beyond the technological innovation, consequently, it becomes necessary to hire the employees having a sound technological knowledge, coupled with strong communication skills, relationship building abilities, clear understanding of functioning of educational institutions, and higher adaptability.

These newly onboarded employees had to be trained for the technical aspect of using the platform, along with problem-solving, engaging customers, and stakeholder management skills. As operations are expanding gradually, the coordination among multiple functionalities becomes equally important. All the team members, including product developers, marketing professionals, implementation specialists, and

customer service managers are required to work closely to ensure the academic institutions receive the best experience consistently. Any delay in communication and poorly managed operations may directly influence the customer satisfaction and trust of the academic institutions. The leadership team has understood that organizational growth often brings a variety of cultural challenges. Employees which are working with a fast-growing technology company are always expected to innovate continuously while maintaining their accountability for the data security and high service quality,

Therefore, it's essential for the organization to create an organizational culture which encourages more learning, innovations, collaborations without undermining customer commitment and satisfaction. This has become a strategic leadership priority for this organization. This organization need to establish a performance measure which recognize customer satisfaction, teamwork, innovation, retention of the academic institution as promising customer, rather than just focusing on the routine operational targets. Another issue that was receiving the increasing attention include maintaining data privacy. Alumni information is very crucial data and act as a valuable educational asset. This includes both personal and professional details of all alumni, that's why educational institutions are expected to build a complete transparency regarding their data, ethical use of their information, and maintaining the regulatory compliances.

Developing this trust is crucial not only for retaining existing clients, but to attract new institution as a significant customer in the highly competitive environment. The management team understood that these challenges are almost interconnected. Rapid expansion without having a well-defined organizational system should always impact the service quality, engagement of employees, and establishing the customer satisfaction and confidence. In contrast, investing heavily in building organizational capability could slow expansion and may rise operation costs. Therefore, it is important to find the right balance between the innovation, growth, and organizational effectiveness. This becomes important strategic concern of this organization.

The Emerging Challenge

As AlumNetworks progressed beyond initial validation stages (MVP and POC), the management felt the need to expand its operations at national and international markets. This was not possible without switching from manually operated systems to fully automated systems. The management started brainstorming to identify the challenges which they could face while expanding the market. The discussion begins with identifying and locating challenges that company may face during the market expansion. Although in current scenario where the accreditation teams like NAAC

and NBA demands strong alumni connect and engagement, the adoption of new platform for alumni connect varied widely. Depending upon the type of the institution, the decision-making authority in the educational institutions/universities often required the involvement of multiple stakeholders.

These institutions follow typical bureaucratic decision-making system, which can act as a most significant barrier to adopt digitally upgraded platforms. Several suggestions were put forward including, the need of continuous engagement strategies, demonstrations of platform by offering training to the clients, and developing relationship building strategies. Management felt these three aspects will not only help attracting new clients but also enable to retain the existing ones effectively. A next challenge was strengthening users' behavioural intention to adopt the platform. The concerns raised by the institutional administrators were, whether the new system would integrate smoothly with existing databases, whether employees would be able to learn the software effectively, whether alumni members find it useful and easy to use, and whether the platform can satisfactorily extend continuous engagement of the alumni members?

These concerns had a direct impact on acceptance of the platform and could slow down the sales cycle. These concerns can be addressed if a company decides to adopt automated systems, so that there is less manual intervention in communication and updating of the data. The portal could successfully manage the data of 10 institutes and 35,000 alumni through manual intervention but further scaling to thousands of institutes required a complete operational overhaul. The company needed to automate three critical workflows: Automated sign up, portal creation and Self-serve Institutional Onboarding. Allowing brands to access the platform to directly post the brand offers, track performance, raise invoices and track them. Generating and distributing customised weekly AlumZines automatically after incorporating the brand offers.

Next point of discussion was how to build this infrastructure without financial support. To face this challenge Chandra Shekhar and his team took two critical decisions that reflected the company's future trajectory. When Company drained out of funds, to enhance the operational efficiency Chandra made a bold decision to take the role of lead developer himself, making use of generative AI like Perplexity, Gemini, and later Claude to develop a platform. This was not just to save the development cost but also time saving technique to build the platform taking advantage of existing AI. Within a short time, he built version 2 of the alumni portal. The Version 2 platform will ensure less human intervention but the management team has to train the entire team in

adopting and disseminations of the operation across institutions, alumni and marketers.

The company believe that their organisational culture act as a competitive advantage that's why they need to protect its organisational culture amidst the expansion plans to retain this position. There is a need for strong coordination and support system amongst varied operation teams like product development, marketing, technical and customer care department to ensure that academic institutions received seamless service throughout their engagement with the company. Further the point of discussion is data privacy. The management is concerned about winning the trust of their clients that their alumni personal and professional information will be kept safe. They are keen on providing a technology which could provide the ease of using along with responsible governance. This kind of development needed in the existing system to build strong relationship with the stakeholders.

Another concern is how to evaluate the performance of the company and its resources. They felt that enhancement in the revenue and customer base will be the prime focus of the company but other aspects like customer services, employee satisfaction and retention, Return on investment, shorter Breakeven point, and stakeholder relationships all of these equally important parts of the business and therefore a matrix has to be developed to determine the cost and benefit associated with each service extended to every stakeholder. As a final point it was felt that the new phase of advancement in company's functioning cannot be achieved merely by advancement in the technology but attention has to be extended to other aspects including planning, organising and managing the additional resources to enhance organisational capability and to develop stakeholder confidence. The management felt the above areas discussed would not only enable the company to go for the expansion but also enable the company to get competitive advantage for ensuring long-term sustainability.

The Decision Point

As AlumNetworks is all set to move to the next phase of its journey, the management team brainstormed and identified its future strategy and acknowledged that the success of the company lies in expanding and retaining the clients. As such they felt the need of a platform that could handle large data base while promising data safety to the clients and in line with the governance expected by the regulating authorities. It is also felt that to increase the adoption rate of the AI enabled services, it is necessary to extend the services with perks and ensuring the features like ease to use, good customer service and relationship management team.

Another strategic move worth appreciating was dealing with automation before raising funds for scaling. The management believed in "prove-revenue-then-raise" model over "raise-then-spend model". Their decision to prove the success of the platform by adding alumni from 35000 to few hundred thousand and then going to market for raising funds has proved the right and naïve approach. Trusting the brand and planned scaling strategy was another great move by the management to ensure the funds are raised effectively while ensuring the reduced investors risk. As a final point, as quoted by Sir Ralph Emerson "Unless you try to do something beyond what you have already mastered, you will never grow", the management team has realised the importance of innovation while considering the current rules and regulations of the education sector and AI regulatory framework.

AlumNetworks' story illustrates that sustainable startup growth is a function of determination, validation of the product and strategic resilience. While technology is an important part of any upgradation process, the product is the fuel and the leadership is the steering wheel giving directions to the business and taking it to new paths. The management successfully sustained the initial stages from idea generation till product development but true win was when they overcame the constraints in the business environment and developed a version 2 of its platform without any external funding. This self-sustained and automated system developed by the CEO of the company using generative AI to attain a transition in the business from 35000 users to millions of users will define the growth and sustainability of this unique and naïve entrepreneurship.

Questions

1. What institutional problems created the opportunity for AlumNetworks Pvt. Ltd., and how did the company address these challenges through its AI-enabled alumni management platform?

2. Using the Technology Acceptance Model (TAM), analyse the factors that influence educational institutions' willingness to adopt AlumNetworks' platform. How can the company improve its perceived usefulness, ease of use, and overall acceptance among institutional users?

3. As AlumNetworks expands across India and into international markets, what major organisational and managerial challenges may arise? What strategies should the company adopt to maintain institutional trust, ensure service quality, and achieve sustainable growth?

Teaching Note

Growing Through Trust and Technology

1. Synopsis of the Case

This case is a story of the growth trajectory of AlumNetworks Pvt. Ltd., an AI-enabled SaaS platform designed to promote alumni participation in educational institutions. The platform reduces administrative burden while increasing alumni participation and institutional visibility. An alumni network is an extended and expanded identity of any educational institute. The feeling of going back to alma mater is a nostalgic journey, moreover, an expression of gratitude. The illustrious alumni base adds to the institutional legacy and acts as the wind beneath the wings for many young aspirants. The broader importance of alumni relations goes beyond administrative efficiency. The startup aims to transform traditional alumni management into a holistic alumni ecosystem by integrating networking, mentoring, fundraising, career services, analytics, and community participation into a single digital platform.

The business has developed an innovative solution with high development potential but faces strategic challenges regarding market expansion, customer uptake, organizational capabilities, and long-term competitiveness. AlumNetworks wishes to expand beyond its physical campus through its alumni network internationally. Through alumni relations initiatives and alumni's active involvement, it wishes to strive, revive, and thrive through meaningful alumni engagement, and so do the alumni communities ascertain, attain, and sustain with the alma mater's involved participation. The example allows students to explore the relationships between technological invention and strategic management, thus understand scalable operations in driving national and international expansion.

2. Target Learning Group

This case is suitable for Management and Post-graduate students (HR, General Management, Marketing, Strategy and Entrepreneurship), Executive MBA participants, Faculty development Programmes (FDPs) on Case Writing, and Executive education programmes focusing on Digital Transformation and Strategic HRM.

3. Learning Objectives and Key Issues

After discussing this case, participants should be able to understand how digital channels can improve alumni interaction, evaluate the growth potential and challenges faced by a technology-based start-up, assess the importance of human resource management and organizational behavior in promoting corporate growth, discuss the relevance of leadership, organizational culture, collaboration, and stakeholder management in organizational growth, and propose strategies for a sustainable competitive advantage in the EdTech industry.

Key Issues include digital transformation in higher education, business model scalability, market expansion strategies, human resource planning for growth, talent acquisition and capability development, organisational culture and leadership, cross-functional collaboration, customer relationship management, data ethics and stakeholder trust and sustainable competitive advantage.

4. Teaching Strategy

The case is designed for a 75–90-minute classroom session. The instructor may begin by asking students to identify the institutional problems that motivated the development of AlumNetworks. This could be followed by a discussion about the company's business model and the role of technology in tackling alumni engagement challenges. Students could then be divided into small groups to analyze the company's expansion strategy from different perspectives such as marketing, technology, operations, and human resource management. Each group could be asked to identify the major challenges associated with scaling the business and recommend practical solutions. The session could conclude with a discussion on how organizational culture, leadership, stakeholder engagement, and HR practices can support sustainable growth alongside technological innovation.

5. Questions for Discussion

1. What institutional weaknesses created a market niche for AlumNetworks?

Many educational institutions lacked an organized system to maintain long-term relationships with their alumni. Alumni data were often outdated, communication was irregular, and opportunities for mentoring, fundraising, networking, and placements were underutilized. These institutional gaps created a strong demand for a technology-enabled alumni management

platform, providing AlumNetworks with an opportunity to offer an integrated and scalable solution.

2. **How does automation enhance alumni engagement and institutional efficiency?**

   Automation simplifies routine activities such as maintaining alumni records, sending personalized communications, managing events, tracking engagement, and generating reports. It reduces manual effort, improves data accuracy, and enables institutions to engage alumni more consistently. As a result, institutions can strengthen alumni relationships while using their resources more efficiently.

3. **What HR and organizational behavior problems are likely to develop as AlumNetworks expands nationally and internationally?**

   Rapid expansion may create challenges such as recruiting skilled employees, maintaining a common organizational culture, ensuring effective communication across teams, developing capable leaders, and managing employee performance. The company may also face resistance to change, coordination issues, and the need to balance innovation with standardized processes across different locations.

4. **How can the company develop trust with educational institutions while providing consistent service quality?**

   AlumNetworks can strengthen trust by delivering reliable services, responding promptly to client needs, protecting institutional and alumni data, and maintaining transparency in its operations. Providing regular training, continuous technical support, and consistent service standards across all institutions will help build long-term relationships and enhance customer satisfaction.

5. **What approaches should AlumNetworks take to preserve its competitive advantage in the global EdTech marketplace?**

   The company should continue investing in AI-driven innovation, improve user experience, and customize solutions to meet the diverse needs of institutions. Expanding strategic partnerships, strengthening its brand reputation, ensuring high-quality customer support, and continuously

adapting to technological and market changes will help sustain its competitive advantage in the global EdTech industry.

6. Analysis of the Case

Although the case does not provide a quantitative analysis, enough qualitative data is provided for strategic analysis. Students should be aware that the competitive advantage of AlumNetworks is not only in its AI-enabled platform, but also in its capacity to create long-term relationships with educational institutions and alumni communities. In this context, it is important to note that successful expansion depends on good HR practices, leadership development, organizational culture, customer orientation, and stakeholder trust, with the integration of technology.

7. Background Reading

For instructors and students wishing to explore related concepts further, the following readings may be useful including Robbins, S. P., Judge, T. A., & Vohra, N. Organizational Behaviour; Pearson; Dessler, G. Human Resource Management; Pearson; Rothaermel, F. T. Strategic Management. McGraw-Hill; Christensen, C. M. The Innovator's Dilemma. Harvard Business Review Press; Davis, F. D. Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly.

8. Experience of Using the Case

This case has been designed for classroom discussion in undergraduate and postgraduate management programs and faculty development workshops. Participants are asked to draw on concepts from strategy, marketing, human resource management and organisational behaviour to analyse the growth problems of a technology-enabled start-up. In classroom discussions, students are inclined to concentrate first on technical innovation and business expansion. With the right facilitation, they start to understand that sustained organizational growth is much about people, leadership, organizational culture, stakeholder relationships, and effective human resource practices. Thus, the case presents an opportunity for transdisciplinary learning and strategic decision-making.

Case Study 07

HOMSO: Designing a Sustainable Revenue Model for a Home Healthcare Social Enterprise

India's rapidly ageing population, changing family structures, and increasing prevalence of chronic illnesses have created a growing demand for healthcare services that extend beyond hospital walls. While hospitals provide diagnosis and treatment, patients—particularly senior citizens—often struggle with appointments, transportation, post-discharge care, and follow-up support. Home Medical Support Organisation (HOMSO), a social enterprise based in Bhubaneswar, Odisha, was established to bridge this gap by coordinating healthcare services rather than delivering clinical care. Through an asset-light model built on partnerships with hospitals, healthcare professionals, volunteers, and community organisations, HOMSO created value by ensuring continuity of care for elderly patients and peace of mind for their families.

The Decision

March 2026, Bhubaneswar

The conference room at HOMSO's office was unusually quiet. Unlike large healthcare organisations with multiple departments, HOMSO operated with a lean team of four core members. Around the meeting table sat Founder Nibedita Nayak, the Operations Coordinator, the Administrative Officer, and the organisation's Chartered Accountant, who had been associated with HOMSO since its inception. Before them lay financial statements, patient service reports, volunteer records, and operational dashboards summarising another year of growth.

This case was developed by Smita Jesudasan, Stanley Santmayor, Sonali Shiralkar- Tatkar and Preeti Kaushik (St. Francis Institute of Management and Research, Mumbai), Nirupam Chaturvedi, Gitanjali Singh, Priyank Gupta and Rupesh Chourasiya (Institute of Business Management, GLA University, Mathura) during the 16th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from June 25–27, 2026.

The figures reflected an organisation making a meaningful social impact. During the previous year, HOMSO had expanded its network of hospitals and healthcare professionals, coordinated healthcare services for an increasing number of elderly patients, organised community health camps, conducted corporate wellness programmes, and strengthened its volunteer network. More families from outside Odisha - and increasingly from overseas - were relying on HOMSO to care for ageing parents living alone.

The Chartered Accountant projected the financial summary on the screen. "There is no doubt that HOMSO is growing," he began. "Patient referrals have increased, hospitals recognise your contribution, and the community trusts your services." He paused before moving to the next slide. "The concern is not growth. The concern is sustainability." A graph showed operating expenditure rising almost in parallel with service demand. Transportation reimbursements, volunteer payments, communication expenses, training, administration, and service coordination costs had all increased. Revenue had been slumping in some phases, but not fast enough to create financial stability. The organisation was operating close to break-even, with no surplus available for future expansion.

The Operations Coordinator broke the silence. "The more people we help," she said quietly, "the more expensive it becomes to run the organisation." Before anyone could respond, a notification appeared on Nibedita Nayak's mobile phone. It was a message from one of HOMSO's volunteers.

'Mr. Mohanty has safely returned home after discharge - medicines collected. Follow-up consultation scheduled. Family informed. Patient is comfortable.'

A few moments later, another message arrived. This one came from Melbourne, Australia.

Mr Mohanty's daughter wrote:

'Thank you for taking care of my father today. Living thousands of kilometres away, we constantly worry about him. Knowing someone from HOMSO stayed with him throughout the hospital visit has given our family tremendous peace of mind.'

Nibedita passed the phone around the table. No one spoke. The message reminded everyone why HOMSO existed. The organisation was not simply coordinating hospital visits; it was restoring dignity to elderly patients and reducing anxiety for families separated by distance. The Chartered Accountant closed the financial report. "Stories

like these explain why HOMSO matters," he said. "They do not explain how HOMSO will sustain itself."

The leadership team recognised that it had reached a turning point. The organisation had demonstrated that compassionate healthcare coordination could transform the patient experience. However, sustaining that impact required a business model capable of financing growth without compromising affordability. The question before the leadership team was no longer whether HOMSO created value. That had already been proven. The real question was whether a mission-driven healthcare social enterprise could continue to grow while remaining financially sustainable.

Healthcare Beyond Hospitals

India's healthcare system has traditionally focused on hospital-based diagnosis and treatment. Over the past two decades, substantial investments in medical infrastructure, specialist care, and diagnostic technology have improved clinical outcomes across the country. Yet for many patients, particularly senior citizens, the healthcare journey does not end at hospital discharge.

The ageing population, increasing life expectancy, and growing incidence of chronic diseases such as diabetes, hypertension, cardiovascular disorders, and arthritis have transformed healthcare from episodic treatment into continuous care. At the same time, rapid urbanisation, migration for employment, and the growth of nuclear families have weakened the traditional support system in which family members accompanied elderly parents to hospitals, managed medicines, and coordinated follow-up care.

Odisha reflected this broader demographic transition. Many senior citizens live alone or only with their spouses while their children pursue careers in metropolitan cities or overseas. Although families often provided financial support, they were rarely available during medical emergencies, routine consultations, diagnostic investigations, or post-discharge recovery. Hospitals, constrained by their focus on clinical treatment, were not equipped to provide the ongoing coordination required after patients returned home.

This gap between hospital care and home-based recovery created a growing need for organised patient navigation services. Elderly patients required assistance with scheduling appointments, travelling to hospitals, completing registration procedures, collecting medicines and diagnostic reports, arranging transportation, understanding discharge instructions, and attending follow-up consultations. Families living

elsewhere sought a trusted organisation that could provide reliable support while keeping them informed. It was within this changing healthcare landscape that HOMSO was established - not as another healthcare provider, but as a coordinator of care.

Building HOMSO

The idea behind HOMSO emerged from Nibedita Nayak's long-standing belief that healthcare extended beyond hospitals. Growing up, she observed her father's involvement in community healthcare programmes and health camps for senior citizens. These experiences shaped her understanding that compassion, timely assistance, and community participation were as important as medical treatment in improving patient well-being. The COVID-19 pandemic reinforced this belief. The loss of a close family member and the challenges of navigating an overwhelmed healthcare system exposed the absence of organised support for patients outside hospitals. While hospitals concentrated on treating illness, families struggled to coordinate admissions, transportation, medicines, and recovery. Elderly individuals living alone were particularly vulnerable.

Recognising this gap, Nayak established the Home Medical Support Organisation (HOMSO) in February 2021 with an initial grant of 200,000 under the Government of India's Sankalp Initiative for women entrepreneurs. Beginning with a four-member team, HOMSO adopted an asset-light model that connected existing healthcare resources rather than creating new infrastructure. The organisation built partnerships with hospitals, physicians, diagnostic laboratories, physiotherapists, pharmacies, and community volunteers to ensure that patients received coordinated support throughout their healthcare journey. Rather than competing with hospitals, HOMSO complemented them. Its mission was simple: no patient should have to navigate the healthcare system alone.

HOMSO's Operating Model: Coordinating the Patient Journey

Unlike conventional home healthcare providers that own medical infrastructure or employ large clinical workforces, HOMSO has positioned itself as a healthcare coordinator. Its role was not to provide medical treatment but to ensure that patients—particularly senior citizens—could navigate the healthcare system safely, efficiently, and with dignity. The organisation adopted an asset-light operating model, integrating hospitals, doctors, diagnostic centres, volunteers, caregivers, pharmacies, and transportation providers into a coordinated service network.

Customer Acquisition

HOMSO's clients reached the organisation through multiple channels. Digital platforms, including their website, Facebook page, and WhatsApp Business account, served as important sources of enquiries. Families searching online for reliable elder-care support, particularly those living outside Odisha or overseas, often contact HOMSO after discovering the organisation through social media. Referrals from partner hospitals, physicians, existing clients, and word-of-mouth recommendations further strengthened the organisation's visibility. Despite these channels, HOMSO had no dedicated marketing team and relied primarily on its reputation and referrals to attract new clients, limiting its ability to scale awareness beyond Bhubaneswar.

Service Portfolio

After receiving an enquiry, the operations team interacted with the patient or family member to understand the nature of assistance required. The organisation provided a range of non-clinical healthcare support services, including:

- Hospital escort services for consultations, admissions, and discharge.
- Appointment booking with partner hospitals or the patient's preferred doctor.
- Collection of medicines and diagnostic reports.
- Transportation coordination.
- Home visits and post-discharge follow-up.
- Caregiver coordination and physiotherapy support.
- Regular updates to family members regarding patient status.

Many clients required only a single hospital escort, while others engaged HOMSO for ongoing coordination over several weeks or months.

Service Delivery Process

Each service request began with an assessment of the patient's medical condition, location, mobility, urgency, and family expectations. To improve responsiveness, HOMSO divided its operational area into five geographical zones—North, South, East, West, and Central Bhubaneswar. A coordinator managed each zone, assigning volunteers, monitoring assignments, and ensuring timely service delivery. After confirming the patient's requirements, the coordinator allocated a volunteer based on geographical proximity, availability, and the type of support needed. This decentralised

system reduced travel time, enabled faster response, and ensured that patients received assistance from volunteers familiar with the locality.

The volunteer accompanied the patient throughout the healthcare journey, assisting with hospital registration, consultation, diagnostic tests, medicine collection, transportation, and discharge formalities. Upon completion of the assignment, the volunteer submitted a detailed report to the coordination office. The office then updated family members, many of whom lived in cities such as Bengaluru, Mumbai, Delhi, Singapore, Melbourne, London, or the United States. For these families, the communication itself became one of HOMSO's most valued services, providing reassurance that their parents were receiving dependable support.

Volunteer Management

Volunteers formed the backbone of HOMSO's service model. Rather than maintaining a large permanent workforce, the organisation empanelled trained volunteers who were deployed as needed. At the time of the case, HOMSO had a pool of fourteen male volunteers who worked on an assignment basis. The organisation preferred male volunteers because many assignments involved physically assisting patients, moving wheelchairs, lifting, making emergency hospital visits, and travelling late in the evening.

Recruitment primarily occurred through Facebook, WhatsApp groups, and community referrals. However, recognising the vulnerability of elderly patients, HOMSO followed a structured screening process before enrolling any volunteer. Each applicant underwent police verification, background verification, identity verification, and educational credential checks. Only after satisfactory verification and orientation to patient interaction, confidentiality, and hospital procedures was a volunteer assigned to fieldwork. Volunteers were compensated on a per-assignment basis. A standard four-hour hospital escort assignment typically earned the volunteer 600. This flexible arrangement enabled HOMSO to control fixed employment costs while maintaining the ability to respond to fluctuating demand.

Revenue Model

As a social enterprise, HOMSO sought to balance financial sustainability with affordability. Its principal revenue source was service fees charged for patient escorting, appointment coordination, transportation support, medicine collection, and home healthcare coordination. Fees varied depending on the duration and complexity of

the assignment. Beyond patient services, HOMSO organised monthly community health camps, typically held between 7:00 a.m. and 9:00 a.m., focusing on preventive health screenings and awareness among senior citizens. These programmes enhanced community outreach while generating modest income.

The organisation also conducted corporate wellness programmes, typically scheduled between 9:00 a.m. and 11:00 a.m., for employees and, increasingly, for employees' parents. Companies recognised that supporting the health of ageing parents contributed to employee well-being and reduced caregiving stress. Corporate wellness initiatives, therefore, represented an emerging revenue stream and an opportunity to strengthen HOMSO's visibility among working professionals.

Unlike many social enterprises, HOMSO had not secured recurring Corporate Social Responsibility (CSR) funding. Although it had received initial seed funding through the Sankalp Initiative, subsequent operations depended largely on internally generated revenue. This absence of external funding placed greater pressure on the organisation to recover operational costs through service fees while maintaining affordability for elderly clients. Payments were primarily collected through QR-code-enabled digital transactions. However, payment collection presented an operational challenge. Many senior citizens were unfamiliar with digital payment systems or preferred cash transactions. Consequently, payments were often delayed until children living outside Odisha or overseas completed digital transfers after receiving confirmation that services had been delivered.

The Changing Landscape of Elder Care in Odisha

HOMSO emerged at a time when India's healthcare system was undergoing a significant transformation. Improvements in medical infrastructure, increasing life expectancy, and better access to healthcare have enabled people to live longer. At the same time, demographic, social, and economic changes were fundamentally altering the way older adults received care. While hospitals had become increasingly efficient at diagnosing and treating diseases, the responsibility for supporting patients before admission, during hospital visits, and after discharge continued to rest largely with families.

This traditional model of family caregiving was gradually weakening. Across Odisha, particularly in Bhubaneswar and surrounding urban areas, rising migration for education and employment has led to more adult children relocating to metropolitan cities such as Bengaluru, Mumbai, Hyderabad, Delhi, and Chennai, or settling overseas.

Consequently, many elderly parents now live alone or only with their spouses. Although children continued to provide financial support, they were often unable to accompany their parents during routine consultations, diagnostic investigations, medical emergencies, or post-discharge recovery.

For many senior citizens, the absence of immediate family support made even a routine hospital visit difficult. Reaching the hospital, completing registration procedures, consulting multiple specialists, collecting medicines, undergoing diagnostic tests, arranging transportation, and returning home safely often required assistance that was no longer readily available. As chronic illnesses such as diabetes, hypertension, arthritis, cardiovascular disease, and neurological disorders became more common among the elderly, these healthcare interactions became increasingly frequent.

The consequences extended beyond physical care. Elderly patients frequently experience anxiety, loneliness, and a loss of confidence while navigating unfamiliar healthcare systems without family members. Conversely, children living elsewhere carried a constant emotional burden, worrying about ageing parents while feeling powerless to provide direct assistance. For many families, financial support alone was no longer sufficient; they needed a trusted local presence to represent them when they could not be there in person.

The healthcare system itself reinforced this gap. Hospitals were primarily designed to diagnose illnesses, perform medical procedures, and discharge patients once clinical treatment was completed. Their responsibility rarely extended to helping patients schedule follow-up appointments, arrange transportation, collect medicines, coordinate diagnostic investigations, or ensure continuity of care after returning home. As a result, an important disconnect emerged between hospital-based treatment and home-based recovery. Elderly patients often found themselves navigating fragmented healthcare services independently, despite requiring the greatest level of support.

This changing environment created an opportunity for organisations capable of coordinating care across multiple stakeholders rather than providing medical treatment themselves. HOMSO positioned itself to fill this gap by serving as an intermediary among patients, hospitals, physicians, diagnostic centres, pharmacies, caregivers, volunteers, transportation providers, and family members. Instead of replacing existing healthcare institutions, the organisation sought to connect them, ensuring that patients experienced a seamless continuum of care from the moment an appointment was booked until they had safely returned home.

However, operating within this environment presented several additional challenges. The growing demand for caregivers has encouraged many families to recruit attendants through informal channels such as Facebook groups, WhatsApp messages, neighbourhood referrals, and domestic worker networks. Although these platforms offered convenience, they also exposed elderly persons to risks including theft, negligence, abuse, fraud, and breaches of privacy. Building trust, therefore, required far more than simply providing volunteers; it demanded rigorous recruitment procedures, including police verification, background screening, identity validation, educational verification, and continuous monitoring of service quality.

Technology simultaneously created opportunities and barriers. Mobile phones, WhatsApp messaging, digital health records, and online payment systems enabled HOMSO to maintain regular communication with families living outside Odisha and overseas. Real-time updates on consultations, medications, hospital discharge, and follow-up appointments reassured families that their parents were receiving reliable care. Yet many elderly clients remained unfamiliar with online appointment systems, hospital portals, QR-code payments, or smartphone applications. HOMSO, therefore, had to ensure that technology-enhanced service delivery would not exclude senior citizens who were uncomfortable with digital platforms.

Economic considerations further complicated the organisation's operating environment. Commercial home healthcare providers often charged fees that were unaffordable for many middle-income households. At the same time, organisations committed to affordable services faced steadily increasing expenditure on transportation, volunteer coordination, training, communication, verification, administration, and technology. HOMSO therefore operated within a constant tension between its social mission and financial sustainability. Charging significantly higher fees would undermine its commitment to accessible healthcare, whereas maintaining highly subsidised services without diversified revenue sources would restrict future growth.

Government and institutional support represented another important dimension of the environment. Although initiatives such as the Sankalp programme provided early entrepreneurial support, there remained limited institutional mechanisms for caregiver certification, volunteer accreditation, police-assisted verification, or coordinated elder-care services. Strengthening collaboration among hospitals, municipal authorities, police departments, senior-citizen welfare agencies, and community organisations offered significant opportunities to improve accountability and expand organised home healthcare services.

Within this evolving social, healthcare, technological, and economic landscape, HOMSO represented more than a healthcare support organisation. It reflected a new model of community-based healthcare coordination that sought to restore confidence, dignity, and continuity of care for elderly patients while reassuring families separated by geography. Yet the very environment that created the need for HOMSO also generated the strategic challenges that threatened its long-term sustainability. Growing demand, increasing operational complexity, rising service expectations, and constrained financial resources would require the organisation to rethink how it delivers and finances its social mission.

Growth and Emerging Challenges

Within five years, HOMSO had earned the confidence of hospitals, physicians, patients, and families. The organisation handled an average of 20-22 service requests each month and conducted approximately 1 community health camp. Families increasingly viewed HOMSO as a trusted extension of their own support system. The first challenge was scaling a highly personalised service model. HOMSO's reputation had been built on providing one-to-one assistance, including patient escorting, appointment coordination, medicine collection, diagnostic support, and continuous communication with family members. Every additional service request required greater coordination between hospitals, volunteers, transportation providers, and families. Unlike technology-based businesses, HOMSO's operations remained people-intensive, meaning that increasing patient volumes also increased operating costs.

A second challenge involved limited organisational capacity. The organisation operated with a lean core team, supported by 14 empanelled volunteers, who were deployed according to patient requirements across 5 operational zones in Bhubaneswar. Although this structure enabled flexibility, increasing demand placed greater pressure on coordinators responsible for volunteer allocation, service monitoring, and communication with patients and families. Expanding services without compromising responsiveness or service quality has become an important managerial concern.

Volunteer recruitment and retention also represented a continuing challenge. HOMSO relied primarily on Facebook, WhatsApp groups, and community referrals to identify potential volunteers. Given that volunteers regularly accompanied elderly patients to hospitals and entered patients' homes, every applicant underwent police verification, background verification, identity validation, and educational credential checks before empanelment. While these procedures were essential for maintaining trust, they also lengthened the recruitment process and limited the availability of suitable volunteers.

Retaining committed volunteers at the existing remuneration level—approximately 600 for a four-hour assignment—posed an additional challenge as demand for services increased.

The organisation also faced challenges in marketing and customer acquisition. Although enquiries were received through its website, Facebook page, WhatsApp Business account, hospital referrals, and word-of-mouth recommendations, HOMSO had no dedicated marketing function. Awareness remained concentrated on existing hospital networks and client referrals, limiting the organisation's ability to reach a larger market despite growing demand for organised elder-care services. A further challenge involved the collection of payments and cash flow management. HOMSO encouraged digital payments through QR-code-based systems; however, many senior citizens were unfamiliar with digital payment platforms or preferred cash transactions. Consequently, payments were often completed later by children residing in other cities or overseas after service delivery had been confirmed. These delays affected cash flow and created additional administrative effort for the organisation.

The organisation also faced a significant financial sustainability challenge. Revenue was generated primarily through patient services, monthly health camps, and corporate wellness programmes, while the organisation had not secured recurring CSR funding or long-term institutional financial support. At the same time, transportation, volunteer payments, communication, technology, training, and administrative expenses continued to increase. HOMSO therefore faced the difficult task of maintaining affordable services for elderly patients while generating sufficient revenue to sustain operations and future expansion.

Finally, maintaining trust while scaling the organisation remained HOMSO's greatest strategic challenge. Families entrusted the organisation with the care of their ageing parents during vulnerable moments, making service reliability, transparency, and timely communication essential to its reputation. Any lapse in volunteer conduct, coordination, or service delivery could undermine the confidence that HOMSO had built through years of community engagement. Unlike digital businesses that benefited from economies of scale, HOMSO's highly personalised service model remained labour-intensive. The organisation also faced limited market visibility. Although its website and social media presence generated enquiries, the absence of dedicated marketing resources restricted wider awareness. Growth depended heavily on referrals and hospital relationships rather than systematic customer acquisition.

By March 2026, HOMSO had demonstrated that compassionate healthcare coordination could significantly improve the experience of elderly patients and their families. Yet the organisation's success had also exposed the limitations of its existing business model. The leadership team now faced a fundamental strategic question:

Should HOMSO continue operating under its existing mission-driven approach, or redesign its revenue model through subscription plans, deeper hospital partnerships, corporate elder-care packages, technology-enabled services, or other innovative financing mechanisms to ensure long-term sustainability without compromising its social purpose?

Teaching Note

HOMSO: Designing a Sustainable Revenue Model for a Home Healthcare Social Enterprise

1. Synopsis of the Case

This case examines how a social enterprise navigates the dual imperative of social impact and financial sustainability. Established during the COVID-19 pandemic by Ms Nibedita Nayak, HOMSO operates an asset-light, partnership-driven model that bridges the gap between hospital-based treatment and post-discharge patient care for senior citizens. Through a collaborative network of hospitals, healthcare professionals, volunteers, diagnostic centres, and community organisations, HOMSO coordinates patient navigation, hospital escort services, transportation, medicine procurement and family communication. The central focus of the case is the strategic challenge of achieving financial sustainability without compromising the organisation's mission of affordable, compassionate, and accessible healthcare support. As service demand rises, operational costs have grown almost in proportion, exposing the limitations of a revenue model built largely on modest service fees, community goodwill, and grant support. The case invites students to analyse alternative revenue streams while enabling long-term viability.

2. Target Learning Group

This case is designed for:

- Undergraduates / Postgraduate students (BBA / MBA / PGDM)

- Executive education participants
- Learners in healthcare management, social entrepreneurship, strategic management, operations management, and non-profit management courses

The case is particularly relevant in emerging-market contexts and in mission-driven, resource-constrained service organisations.

3. Learning / Teaching Objectives and Key Issues

Learning Objectives

Upon completion of the case discussion, participants should be able to:

1. Analyse the business model of a social enterprise operating in the healthcare sector.
2. Evaluate the challenges of balancing financial sustainability with social impact.
3. Understand partnership-based and asset-light operating models.
4. Recommend appropriate revenue diversification strategies for social enterprises.
5. Develop strategic recommendations for scaling healthcare services while preserving organisational values.

Key Issues Addressed in the Case

- Financial sustainability versus social mission
- Asset-light, partnership-driven operating models in healthcare
- Volunteer management and service consistency
- Technology adoption in elder-care contexts
- Revenue diversification and hybrid funding models
- Scaling coordinated care without compromising quality or affordability

4. Teaching Strategy

The case is suitable for a 60-minute classroom session and can be taught using an interactive, discussion-based approach.

Suggested Teaching Plan:

- *Introduction and Context Setting (5 minutes):* The instructor introduces the structural trust deficit in Indian real estate markets.
- *Case Discussion (15 minutes):* Analyse HOMSO's operating model and identify the major strategic challenges facing the organisation.
- *Group Exercise (20 minutes):* Students develop an alternative revenue model capable of sustaining future expansion while preserving HOMSO's mission of affordability and compassion.
- *Stakeholder Analysis (5 minutes):* Evaluate the interests of senior citizens, families, hospitals, volunteers, government agencies, CSR partners and healthcare professionals.
- *Class Debate (10 minutes):* "Should social enterprises commercialise their services to ensure long-term sustainability?"
- *Strategic Recommendation (5 minutes):* Each student group presents a five-year roadmap for HOMSO.

5. Questions for Discussion

1. Why has HOMSO been successful despite having limited financial resources?

HOMSO's success is primarily driven by its partnership-based operating model, community trust and clearly defined social mission. Rather than investing in expensive healthcare infrastructure, the organisation coordinates existing healthcare resources through hospitals, volunteers, diagnostic centres and healthcare professionals. This asset-light approach reduces capital requirements while enabling broad service coverage. Its patient-centric approach and personalised support have strengthened credibility among senior citizens, families and hospitals. The organisation's focus on continuity of care — through timely family communication, post-discharge follow-up and volunteer accompaniment — fills a genuine gap in India's healthcare ecosystem and generates social value that few conventional providers address.

2. What are the major strategic challenges facing HOMSO?

HOMSO faces several interconnected challenges:

- Financial Sustainability: Operating costs have risen nearly proportionately with service demand, leaving little headroom for reinvestment or expansion.
- Operational Scalability: The personalised, manual coordination model is effective but difficult to scale without significant process standardisation and technology investment.
- Volunteer Management: Recruiting, training, motivating and retaining committed volunteers while maintaining consistent service quality requires continuous effort.
- Caregiver Verification and Patient Safety: Informal recruitment through social media and local references raises risks of negligence, abuse and fraud, demanding structured verification systems.
- Technology Adoption: Many elderly patients remain unfamiliar with digital platforms, limiting the reach of technology-driven solutions.
- Founder Dependence: Much of HOMSO's credibility is tied to Ms Nayak's personal reputation and relationships, creating continuity risk as the organisation grows.

3. Which revenue model would best support HOMSO's long-term sustainability?

Students may propose different solutions; however, a hybrid revenue model is likely to be the most sustainable. Such a model may combine:

- Tiered subscription-based membership plans (Silver, Gold, Platinum, Signature Care) offering priority hospital escort, appointment scheduling, transportation, medicine procurement, wellness check-ins and dedicated family updates.
- Hospital and diagnostic centre retainerships generating recurring institutional income.
- Corporate CSR partnerships sponsoring healthcare packages for retired employees.
- Government grants and scheme-based funding for elder-care programmes.
- Caregiver training and certification programmes as a fee-based vertical.

- Philanthropic donations and community contributions for cross-subsidising economically vulnerable patients.

A recurring subscription model would generate predictable revenue, strengthen long-term client relationships and enable cross-subsidisation — allowing economically weaker patients to continue receiving affordable care while financing HOMSO's expansion. Diversification reduces dependence on any single source while preserving the organisation's social mission.

4. How can technology improve HOMSO's operational efficiency?

Technology can meaningfully improve scheduling, volunteer allocation, patient record management, family communication and service monitoring. AI-enabled scheduling, mobile applications, electronic health records and GPS-enabled volunteer tracking could reduce administrative workload and improve response times. Teleconsultation coordination could extend HOMSO's reach to patients in distant locations. However, solutions must remain simple and elder-friendly, as many senior citizens have limited digital literacy. A hybrid model — combining digital tools for the operations team with human-assisted interfaces for elderly patients — would balance efficiency with accessibility.

5. What strategic roadmap would you recommend for HOMSO over the next five years?

A balanced growth strategy should prioritise the following:

- Short term (Year 1-2): Standardise operating processes, introduce a tiered membership model, strengthen the volunteer training programme and establish a verified caregiver registry.
- Medium term (Years 2-4): Invest in a digital patient coordination platform, expand hospital and CSR partnerships, and pilot the partnership-based expansion model in neighbouring districts of Odisha.
- Long-term (Year 4-5): Scale to multiple cities through franchise or local-partnership models, diversify revenue across all streams and institutionalise governance to reduce founder dependence.

Growth should remain mission-driven rather than purely commercial to preserve the trust that differentiates HOMSO from conventional home-care providers.

6. Analysis of Data

The case is primarily qualitative and does not contain detailed quantitative datasets. However, instructors may guide students to analyse conceptually:

- Cost structure implications of the asset-light model versus asset-heavy alternatives
- Revenue diversification ratios across service fees, memberships, institutional partnerships and grants
- Volunteer productivity and coordination efficiency as proxies for scalability
- Social return on investment (SROI) as a framework for evaluating mission alignment alongside financial outcomes

Such analysis helps students link strategic intent with expected operational and financial outcomes and appreciate the trade-offs inherent in scaling a social enterprise.

7. Background Reading

Suggested supplementary readings include:

- Porter, M. E., & Kramer, M. R. (2011). Creating Shared Value. Harvard Business Review.
- Yunus, M. (2010). Building Social Business. PublicAffairs.
- Osterwalder, A., & Pigneur, Y. (2010). Business Model Generation. Wiley.
- Ries, E. (2011). The Lean Startup. Crown Business.
- Prahalad, C. K. (2005). The Fortune at the Bottom of the Pyramid. Wharton School Publishing.
- World Health Organisation. (2022). Integrated Care for Older People (ICOPE): Guidance for Person-Centred Assessment and Care Pathways in Primary Care. Geneva: WHO.

8. Experience of Using the Case

This case has been designed for use with BBA final-year and MBA / PGDM students. In pilot sessions, the case generated strong engagement around issues of social enterprise sustainability, revenue model design and the ethical dimensions of commercialising healthcare services for vulnerable populations.

Students consistently drew comparisons between HOMSO's partnership-driven model and both conventional home-care agencies and digital health platforms, leading to rich discussions on the limits and possibilities of scaling trust-based services. The dilemma between financial viability and mission fidelity proved particularly generative, with student groups frequently arriving at divergent but well-reasoned strategic recommendations.

Case Study 08

Asset NX: Building a Startup Workforce Beyond Experience

Introduction

In fast-changing industries, firms often assume that experienced professionals are the safest bet. Experience is expected to bring judgment, industry knowledge, mature client handling, and immediate productivity. For startups, this belief can feel even more convincing because limited time and resources make "ready-to-perform" employees seem ideal. Yet startups operate in environments where ambiguity, speed, experimentation, and learning matter every day. In such conditions, adaptability may matter more than experience itself.

This was the challenge that emerged at Asset NX, a Hyderabad-based real estate advisory and asset management firm founded in 2022 under the leadership of Siddharth Shah. The company entered the market with the ambition to act not merely as a broker, but as an end-to-end real estate solutions partner for clients seeking advisory, transactions, legal and tax support, asset valuation, financial planning, tenancy management, maintenance support, and government liaisoning. Its philosophy, "Network is Net Worth," reflected a relationship-driven approach in which trust, credibility, and personalized service were central to value creation. Yet the very people the company first believed would strengthen the organization became a source of friction. As Siddharth Shah later reflected, "They knew everything… but they didn't want to change anything." That statement captured the deeper issue facing Asset NX: the problem was not lack of competence, but lack of adaptability and cultural alignment.

Industry and Policy Context

Asset NX was created at a time when India's real estate and startup ecosystems were both becoming more formal, transparent, and digitally driven. In real estate, the Real

This case was developed by Shriya Gaurav Kogta (G H Raisoni College of Engineering and Management, Jalgaon), Pravash Jena (IMI, Bhubaneswar), Keerthana M (Sastra deemed University, Thanjavur), Swati Bedekar (Institute for Future Education Entrepreneurship and Leadership, Pune) during the 15th Online Case Writing Workshop organized by the Association of Indian Management Schools (AIMS) from March 23–25, 2026.

Estate (Regulation and Development) Act, 2016 marked a major shift toward registration, disclosure, accountability, and consumer protection. This changed the expectations placed on all firms operating in the sector, directly or indirectly, by increasing the importance of professionalism, client communication, process clarity, and regulatory awareness. (RERA). In Telangana, digital governance reforms such as TG-bPASS signaled a broader move toward online approvals, simplified procedures, and faster service processes. For firms working in property advisory and related support functions, this reinforced the need for employees who were comfortable with technology, process coordination, and responsive customer service. (Telangana Intermediate Board)

At a wider level, Startup India and Digital India promoted an ecosystem where entrepreneurship, skilling, digital capability, and operational agility became increasingly important. Startup India's recognition framework emphasized easier compliance, support mechanisms, and formalized growth for eligible firms, while Digital India's stated goal has been to build a digitally empowered society and knowledge economy. These initiatives formed part of the environment in which companies like Asset NX had to compete and evolve. (Startup India). For Asset NX, these external shifts meant that market knowledge alone was no longer enough. The company needed a workforce that could function in a customer-centric, technology-enabled, and rapidly changing business context.

Company Background and Business Model

Asset NX positioned itself as a contemporary, all-encompassing source for real estate services. The firm's mission was to simplify the client journey from acquisition to management and finally to monetization. Unlike conventional brokers whose role often ends once a deal closes, Asset NX aimed to remain a long-term partner for clients throughout the real estate lifecycle. The company primarily served high-net-worth individuals and professional investors who needed expert advice for strategic real estate decisions. Its value proposition was built around simplifying complex real estate investments and management concerns while aligning recommendations with individual financial objectives.

The firm's business model was service-oriented and relationship-driven. Its key resources included market expertise, trust, networks, and long-term customer relationships. Its revenue model relied mainly on advisory and transactional fees, which meant that employee quality, conduct, and client handling had a direct impact on business performance. The company also sought to combine domain expertise with technological tools such as CRM systems and Salesforce CRM to improve service

delivery, customer tracking, and operational responsiveness. This technological layer would later become more important than the founders had initially anticipated.

Year One: The Experience-Driven Hiring Model

In its early months, Asset NX followed what seemed like the most logical hiring strategy: recruit experienced professionals from the real estate sector. The assumption was straightforward. Such professionals would understand the market, possess established networks, handle clients effectively, and contribute almost immediately with minimal training. In a startup context, that looked efficient and practical. Initially, the logic appeared sound. The real estate business depends heavily on negotiation, market awareness, relationship management, and familiarity with documentation and processes. Experienced employees seemed likely to strengthen Asset NX's credibility and reduce the burden of developing people from scratch. However, as operations unfolded, the founders realized that prior experience did not automatically translate into startup performance.

The Emerging Problem

The company discovered that many experienced employees were struggling not with the technical side of work, but with the dynamic character of a startup. Several recurring issues began to emerge. Employees resisted new processes and ideas. They found it difficult to unlearn established habits formed in previous organizations. They were slower than expected in adapting to a fluid work environment. Many also showed a preference for clear hierarchy and structured routines, while the startup needed flexibility, openness, and experimentation. The deeper issue was cultural misfit. Asset NX was trying to build an organization defined by agility, customer-centricity, initiative, and evolving systems. Some experienced hires, however, were shaped by older working styles and found the lack of rigidity uncomfortable. The startup needed employees who could learn while doing, take ownership without waiting for instructions, and evolve as the organization evolved. Instead, some hires carried practices that fit their former workplaces better than their new one.

In a few instances, the mismatch became so serious that employees chose to leave Asset NX and return to their previous workplaces. This was a crucial moment for the firm. It revealed that the problem was not just about capability or work ethic. It was about whether the workforce fit the organizational stage and strategic need of the company. By the end of the first year, the leadership was forced to confront an uncomfortable question: Was the company hiring for experience when it should have been hiring for adaptability?

Why Experience Did Not Guarantee Performance

The Asset NX case shows that startups and mature organizations reward different types of behaviour. In stable firms, experience often improves efficiency because employees repeat proven processes in a predictable environment. Startups, however, operate in an unfinished system. Roles shift, systems change, priorities evolve, and employees must often perform beyond formal job descriptions. In such a context, learning agility, openness to change, and comfort with ambiguity can be more useful than long experience in fixed routines. This does not mean that experience is irrelevant. Rather, it means that experience without adaptability can become a limitation. Asset NX's founders gradually realized that they had overvalued what employees knew and undervalued how willing they were to change.

Year Two: The Strategic Pivot

During its second year, Asset NX began to rethink its people strategy. Instead of focusing mainly on experienced industry professionals, the company started prioritizing fresh graduates from reputed institutions and candidates with strong learning orientation, enthusiasm, and readiness to grow in a fast-changing environment. The new emphasis was not on cheap labor; the company offered competitive compensation, signaling that it genuinely valued potential, attitude, and fit.

The philosophy behind this shift was simple: skills can be developed, but mindset is much harder to change. Fresh graduates had fewer pre-existing habits, fewer fixed notions about how work "should" be done, and greater willingness to absorb the company's way of thinking. According to the company's observations, these employees adapted more quickly to the environment and aligned more naturally with organizational goals.

This marked a major transformation in the company's workforce logic. Asset NX was no longer hiring primarily for the past. It was hiring for the future.

Building Capability Instead of Buying It

Hiring fresh graduates solved one problem but created another. Employees with high potential still needed to be developed into professionals who could deal with wealthy and demanding clients. Asset NX responded by building structured learning systems. The company introduced a 7-day induction programme designed to align new employees with organizational values, service processes, and behavioural expectations

from the start. This induction was followed by continuous training in professional verbal and written communication, client interaction, relationship management, sales techniques, and behavioural competencies. These efforts aimed to make freshers effective in client-facing roles despite their limited prior experience. This was a major strategic shift. Instead of assuming that talent should arrive ready-made, Asset NX began designing capability internally. The firm effectively replaced an "experience-first" model with a "train-and-transform" model.

Cultural Redesign

The hiring shift was accompanied by deliberate changes in organizational culture. Asset NX recognized that if it wanted a younger, learning-oriented workforce to succeed, the internal environment also had to evolve. The company moved toward an informal and open work environment that encouraged collaboration. It minimized micromanagement to promote autonomy and accountability. It adopted a 5.5-day work structure to balance productivity and flexibility. Weekly interactive sessions were introduced to support engagement and team bonding. Recognition and promotions were linked more closely to merit and performance than to age or tenure.

The company also sent a strong message about inclusivity and fairness. In its third year, three young female employees were promoted on the basis of performance and passion, reinforcing a culture of meritocracy and gender neutrality in a sector where such signals matter. These cultural elements mattered because Asset NX's business depended heavily on employee behavior. In a trust-based advisory model, clients judge not only services, but also responsiveness, confidence, clarity, and professionalism. Culture therefore became a strategic asset, not merely an internal HR concern.

The Digital Advantage

One of the most significant and perhaps unexpected outcomes of the company's workforce shift was stronger digital capability. The younger workforce was more naturally comfortable with technology, digital communication, CRM usage, and social media engagement. This strengthened the company's use of CRM tools for client management, supported digital marketing efforts, and improved the creation and management of social media campaigns, especially on platforms such as Instagram.

This mattered because the nature of real estate engagement itself was changing. Clients increasingly expected responsiveness, visible digital presence, structured follow-up, and modern communication. In a policy environment shaped by RERA-style

formalization and technology-enabled governance, this digital readiness gave Asset NX a commercial edge in addition to cultural alignment. (RERA) The company's philosophy, "Network is Net Worth," thus evolved in meaning. Networks were no longer only personal and offline. They also included CRM-managed client relationships, digital visibility, and online engagement.

Year Three: Results of the Transformation

By the third year, the effects of the transformation were visible. Employee retention improved significantly. Workplace energy and engagement rose. Sales processes became more agile and responsive. Digital outreach and branding strengthened. The company also reported improvement in overall business performance and profitability, suggesting that the workforce shift had contributed directly to business outcomes. The central lesson became clear: performance at Asset NX depended less on the number of years employees had worked elsewhere and more on how well their mindset, behavior, and capabilities fit the company's stage, strategy, and culture.

New Challenges Going Forward

Although the shift was successful, it also created new strategic questions. A fresher-heavy workforce may work well in the growth stage of a startup, but long-term complexity can demand different capabilities. Asset NX now faces several challenges. As the company grows, operations may become more complex and require deeper specialization, stronger controls, and more structured managerial systems. The company will need to create a leadership pipeline, not just a high-energy workforce. It may also need to balance youthful adaptability with selective experienced hires who can handle crisis situations, difficult negotiations, and regulatory complications. Culture could become harder to preserve as the organization scales. The company's training burden may rise, and younger employees may be more prone to attrition if faster opportunities emerge elsewhere.

This creates the next dilemma for Siddharth Shah and his team: Should Asset NX continue prioritizing youth and internal capability building, or should it begin introducing more experienced professionals in a carefully selective way? The answer will shape whether the company can scale without losing the agility that helped it succeed.

Conclusion

The story of Asset NX is not simply about choosing freshers over experienced employees. It is about understanding that workforce strategy must match

organizational context. In the company's early phase, experience did not fail because it lacked value. It failed because it was not matched with adaptability. By redesigning its hiring philosophy, onboarding systems, culture, and digital practices, Asset NX built a workforce more suited to its strategic reality. The case therefore raises an important management insight: in dynamic environments, the most valuable employees may not be those who know the most, but those who can learn, align, and evolve the fastest.

Questions

1. Why did the experience-driven hiring model fail to deliver the expected results at Asset NX, despite the real estate sector traditionally valuing prior industry experience?
2. How did adaptability, learning agility, and cultural alignment become more important than experience in the startup environment of Asset NX?
3. To what extent was Asset NX's shift toward hiring fresh graduates a strategic advantage, and what risks could this approach create as the company grows?
4. How can Asset NX balance the need for a youthful, flexible workforce with the future requirement for experienced professionals, stronger systems, and organizational maturity?

Teaching Note

1. A Synopsis of the Case

This case examines the early journey of Asset NX, a Hyderabad-based real estate advisory and asset management firm founded in 2022. The company entered the market with a vision to provide end-to-end real estate solutions for high-net-worth individuals and professional investors. In its initial phase, Asset NX adopted an experience-driven hiring strategy, assuming that experienced professionals would bring immediate value, industry knowledge, and client-handling capability. However, the company soon faced organizational friction. Many experienced hires struggled to adapt to the startup's dynamic, fast-changing, and less structured environment. Their resistance to change, inability to unlearn old work habits, and lack of alignment with the emerging company culture created performance and retention challenges.

Recognizing this mismatch, the company shifted its workforce strategy. Asset NX began prioritizing fresh graduates with strong learning agility, adaptability, and openness to change. To support this transition, the company introduced structured onboarding, a 7-day induction program, continuous training, an open work culture, reduced micromanagement, and merit-based recognition. Over time, this youth-centric and culture-aligned approach improved retention, engagement, digital capability, and overall business performance. The case highlights the importance of aligning workforce strategy with organizational context. It raises critical questions about experience versus adaptability, startup culture, talent development, and how firms can balance flexibility with the need for maturity and scale in the long term.

2. The Target Learning Group

This case is suitable for MBA and BBA

3. The Learning/Teaching Objectives and Key Issues

After discussing this case, students should be able to:

1. Understand the importance of aligning workforce strategy with the stage and nature of the organization.
2. Analyze why prior experience may not always guarantee performance in startup and dynamic business environments.
3. Evaluate the role of adaptability, learning agility, and cultural fit in employee effectiveness.
4. Examine how organizational culture influences employee performance, engagement, and retention.
5. Assess the strategic advantages and risks of hiring fresh graduates over experienced professionals.
6. Understand the role of training, onboarding, and capability-building in converting potential into performance.
7. Discuss how startups can balance youthful energy and flexibility with the need for experience and organizational maturity as they scale.
8. Link workforce strategy with external business conditions such as digital transformation, startup ecosystems, and policy-led formalization of industries.

Key Issues in the Case

- Experience versus adaptability
- Workforce strategy in startups
- Organizational culture and culture fit
- Resistance to change
- Talent acquisition and retention
- Training and development as strategic tools
- Generational dynamics in the workplace
- Scaling challenges in growing firms
- Digital readiness and modern business expectations

4. The Teaching Strategy

This case can be taught using a participative and analytical approach.

Suggested Teaching Flow

Step 1: Opening Trigger: Begin by asking students:
"Does experience always lead to better performance in a startup?"
This helps surface assumptions and creates initial engagement.

Step 2: Case Reading and Problem Identification
Ask students to identify the core problem faced by Asset NX. Encourage them to move beyond the surface-level issue of hiring and identify deeper concerns such as organizational fit, resistance to change, and strategic misalignment.

Step 3: Group Discussion
Divide students into small groups and ask them to analyze:

- Why the initial hiring model failed
- Why fresh graduates performed better
- Whether the shift was sustainable
- What the company should do next as it grows

Step 4: Conceptual Linkage
Connect the discussion with concepts such as:

- person–organization fit
- dynamic capabilities
- learning agility
- startup workforce strategy
- organizational culture
- talent development

Step 5: Decision-Oriented Closure

Conclude by asking students to recommend the next workforce strategy for Asset NX:
Should it continue with a youth-centric model, adopt a hybrid model, or gradually shift back toward experienced professionals?

Pedagogical Approach

- Case analysis
- Group discussion
- Classroom debate
- Board mapping of pros and cons
- Application of management concepts to practice

5. Class Duration

Total Duration: 60 minutes

- Student case review and issue identification: 10 minutes
- Group discussion may be group of 5 : 20 minutes
- Presentation : 15 minutes
- Connect the case with theoretical model: 5 minutes

6. Questions for Discussion

1. Why did Asset NX's initial experience-driven hiring strategy fail?

The failure of the initial hiring strategy was not due to lack of competence but due to lack of adaptability and contextual misfit. Experienced employees brought valuable domain knowledge, but they were conditioned by established industry practices. Their resistance to change, difficulty in

unlearning, and preference for hierarchical structures slowed down innovation and responsiveness. In a startup environment, where flexibility and speed are essential, such rigidity created friction. This highlights that experience without adaptability may hinder rather than support organizational growth.

2. What advantages did freshers bring to Asset NX?

Freshers brought energy, flexibility, and openness to learning, which aligned better with the organization's dynamic needs. They were easier to train and quickly adapted to company processes and expectations. Their familiarity with technology enabled efficient use of CRM systems and digital tools. Additionally, their social media awareness contributed to creative digital marketing initiatives, enhancing the company's online presence. Their enthusiasm and collaborative approach also contributed to a more vibrant and engaged work environment.

3. How did organizational culture contribute to the success of the new workforce strategy?

Organizational culture played a critical role in reinforcing the new workforce strategy. By creating an informal, inclusive, and flexible environment, Asset NX enabled employees to perform effectively without fear or rigidity. Minimal micromanagement encouraged autonomy and accountability, while engagement initiatives improved morale and collaboration. Performance-based recognition and inclusive practices, such as promoting deserving employees irrespective of gender or tenure, strengthened trust. This cultural alignment ensured that the workforce's potential translated into actual performance.

4. What role did digital capability play in the organization's growth?

Digital capability became a significant competitive advantage for Asset NX. The younger workforce, being inherently tech-savvy, efficiently utilized CRM tools and contributed to process optimization. They also led the company's digital marketing efforts, particularly through social media platforms, creating engaging content and strengthening brand visibility. This internal development of digital capabilities reduced dependency on external agencies and aligned communication with organizational goals. As customer engagement increasingly shifts online, this capability enhanced both reach and effectiveness.

5. What risks are associated with a fresher-dominated workforce?

While freshers bring adaptability and energy, they may lack the experience required for handling complex business situations, strategic decision-making, and crisis management. Over-reliance on a young workforce can create challenges in scaling operations and maintaining consistency. Additionally, younger employees may have higher expectations for rapid growth and recognition, which could lead to retention issues if not managed properly. Therefore, the organization must carefully balance enthusiasm with experience to ensure long-term stability.

6. Analysis of Data

This case is primarily qualitative in nature and does not contain detailed quantitative datasets requiring statistical or financial analysis. However, the case does provide sufficient descriptive information for analytical interpretation related to workforce strategy, organizational culture, and performance outcomes. Teachers may guide students to analyze the case using comparative and conceptual reasoning rather than numerical computation. The following analytical comparisons may be drawn from the case:

Comparison of the Two Hiring Models

Dimension	**Experience-Driven Model**	**Youth-Centric / Culture-Aligned Model**
Hiring focus	Prior industry experience	Adaptability, learning agility, cultural fit
Initial expectation	Immediate productivity	Long-term capability building
Major challenge	Resistance to change, old work habits	Need for training and structured development
Cultural alignment	Weak	Strong
Digital readiness	Limited	Higher
Retention	Lower	Improved
Organizational energy	Moderate/low	Higher
Long-term value	Limited in startup context	Strong in dynamic context

7. Background Reading

Government / policy references added for external context

- Real Estate (Regulation and Development) Act, 2016, Ministry of Housing and Urban Affairs: (RERA)
- TG-bPASS Telangana online approval portal: (Telangana Intermediate Board)
- Startup India DPIIT recognition and benefits: (Startup India)
- Digital India official mission context: (Digital India)\

8. Experience of Using the Case

This case works well in classes on entrepreneurship, human resource management, organizational behaviour, startup strategy, family business, and management fundamentals. It is particularly effective for learners who tend to assume that experience is always superior to potential.

Students usually respond quickly to the central tension in the case:

- Why did experienced employees not perform as expected?
- Why did fresh graduates perform better in the startup environment?

This makes the case engaging because it challenges a commonly accepted belief.

Book Review 01

The Next Twenty Years: Management Education, Technology and Viksit Bharat 2047

(Author: P. Narayana Reddy. Hyderabad: Paramount Publishing House. Year of Publication: 2026, First Edition, ISBN: 978-93-47140-69-3). Pages: 14+186, Price: Rs. 375.

*M. Anil Ramesh**

The book arrives at the right time, addresses the right issue and, happily for the readers, has been written by the right person. Management education in India is at crossroads. The numbers look impressive: the number of institutions and intake has increased and fees have gone up. Viewed through statistics alone, the picture can appear rosy. But statistics are the trees; what we sometimes fail to see is the forest. And the forest is stark. The book points to a troubling reality: thousands of management institutions produce lakhs of graduates every year, yet the employability of a very small proportion of them remains a serious concern. What happens to the rest? Many settle for underpaid jobs, some become frustrated and others struggle to find meaningful employment. We have seen the signs of this frustration around us, yet society has often remained silent or became numb to its consequences.

It is against this backdrop that Prof. P. Narayana Reddy has taken up the issue and addressed it with the clarity and lucidity that have been his hallmarks. An accomplished academician, teacher, educator and thought leader in the field of management education, Prof. Reddy brings to the subject more than four decades of experience. His voice is therefore not merely that of an observer; it is the voice of someone who has lived through the evolution of Indian higher education. He has chosen to write about what he knows best: the path and direction that management education should take over the next twenty years. More importantly, he connects this future with *Viksit Bharat 2047*, the national aspiration of building a developed India by the time the country celebrates 100 years of independence. That connection gives the book an importance that extends beyond management education.

The author draws upon his enormous knowledge pool and lays out the path that management educators, institutions and other stakeholders should be striving to

* *Dean, Accreditations and HoD-Marketing, ICBM-School of Business Excellence, Hyderabad, Telangana. Email: manilramesh@icbm.ac.in*

follow. Yet the book is not an academic heavyweight meant only for researchers. It is written in simple language and is filled with examples, illustrations and practical observations. The author has consciously followed the KISS principle, *Keep It Short and Simple* and has understood the challenge posed by the shrinking attention span of today's readers. The structure of the book itself reflects this philosophy. There are 30 chapters, and each chapter begins with a thought-provoking quotation from a well-known personality. Each chapter can be comfortably read in about 15–20 minutes. Yet the brevity does not make the content superficial. Quite the opposite: many chapters leave a lasting impression because the author does not merely identify a problem; he explores its genesis, examines its root causes and suggests possible ways forward.

The takeaways at the end of every chapter are particularly useful. They do more than reinforce the main arguments. They act as torchbearers for the action that the reader should consider taking. In a sense, Prof. Reddy is asking us to build the future of management education brick by brick, or rather, chapter by chapter. By the end of the 30 chapters, the reader is left with 150 key takeaways, an impressive number for a book of this size. But the real strength of the book is not the number of takeaways. It is the clarity of thought behind them.

One of the book's major strengths is that it does not stop at identifying problems. It asks a more difficult question: What should we do about them? This is what makes the book particularly relevant to management education. The book should be read by all stakeholders in management education, policymakers, administrators, policy bodies such as the UGC and the Ministry of Education, Vice-Chancellors, Directors, Principals, educationists, teachers, students and industry professionals. But I would particularly recommend it to students. Students should read each chapter not merely to understand what management education can do for them, but also to understand what they can do to make management education better. It is worth asking ourselves: It is not only about what management education has done for you. What will you do to make management education better? That question captures one of the underlying messages of the book: improving management education cannot be the responsibility of institutions and teachers alone. Students, too, have a great role to play.

The author gives several interesting examples of how this can happen. For instance, in Chapter 11, *Sustainability and Pedagogy*, he presents an example that can be particularly useful to a marketing faculty member. A case involving Unilever can be combined with the issues of consumer activism and investor pressure surrounding palm-oil-related deforestation. Such a case can bring together marketing concepts and

sustainability concerns in one classroom discussion. Students can simultaneously explore brand equity, consumer behaviour, corporate responsibility, sustainability and supply-chain transparency. This is where the book becomes more than a discussion about management education. It becomes a source of ideas for how management education can actually be taught differently. The author's style is direct and, at times, deliberately blunt. He is clear about what needs to be achieved, provides a timeframe and, importantly, offers an action orientation. His discussion of the 12 commandments for *Academic Leadership* is particularly interesting and deserves the attention of leaders. The book is divided into nine parts, covering a remarkably wide canvas:

Part I – Towards Viksit Bharat focuses on the roadmap, the National Education Policy and emerging trends in higher education.

Part II – Indian Higher Education at a Crossroads examines the problems facing higher education, employability, skills and the increasingly important issue of skill gaps.

Part III – The State of Management Education looks at contradictions in management education, the Sustainable Development Goals, pedagogy and the emerging issues that will shape the next twenty years.

Part IV – Becoming a Great Learning, Teaching and Leadership Ecosystem deals with teaching, faculty development, academic leadership and, importantly, the learner's responsibility in the teaching-learning process.

Part V – Technology and AI in Higher Education addresses one of the most consequential subjects of our time: the role of technology and artificial intelligence in higher education and the way AI could reshape classrooms and learning.

Part VI – Work, Talent and Disruptions focuses on people — the one resource that does not depreciate with time. It examines work, jobs, rebuilding the people function and the forces driving beneficial disruption.

Part VII – The Entrepreneurial Imperative addresses a critical question: Are B-schools producing too many employees and too few entrepreneurs? The section explores entrepreneurial talent, innovation and the operating system required for entrepreneurship.

Part VIII – The Ground Beneath the Economy turns attention to the unorganised sector, which employs a substantial proportion of India's workforce, and explores ways of professionalising this important but often neglected part of the economy.

Part IX – Globalisation of Education looks at India's preparedness for the entry of foreign universities and concludes by highlighting the importance of the Indian knowledge system and the vision of India as a *Vishwa guru*.

Interestingly, the author ends with an *Afterword* rather than an Epilogue. What really struck me, and what I believe will remain in my mind for a long time, are the two thoughts: *When the student is ready, the teacher appears.* And equally importantly: *When the teacher is ready, the student appears.* These two statements beautifully capture the essence of education. The teacher and the student are two important cogs of the same wheel. When both perform their roles properly, the wheel of education moves in the right direction. And when that happens in management education, the transfer and spread of knowledge, skills, values and managerial thinking can contribute meaningfully to India's larger developmental aspirations.

The book's greatest strength, its simplicity and accessibility, could also be viewed as a limitation by some academic readers. Those looking for extensive empirical analysis, detailed statistical evidence or a deeper engagement with international academic literature may find some sections broad rather than deeply analytical. However, this appears to be a conscious choice by the author. The book is intended less as an academic treatise and more as an actionable roadmap for a wide range of stakeholders. Judged against that objective, its simplicity becomes a strength rather than a weakness. Ultimately, *The Next Twenty Years* is a passionate call to action. It urges every stakeholder to look beyond superficial disruptions and commit to building a resilient, inclusive, technology-enabled and globally connected educational ecosystem.

Whether you are a young graduate entering a volatile workforce, a faculty member shaping tomorrow's minds, an academic leader steering an institution or a policymaker influencing the direction of higher education, this book provides a roadmap, enduring principles and practical strategies to think about how India's management education ecosystem can evolve. And that is perhaps the most important contribution of the book. It does not merely ask: "What will management education look like in the next twenty years?" It implicitly asks a much more important question: "What are we going to do today to ensure that management education is ready for the next twenty years?"

I strongly recommend that everyone with an interest in management education acquire this book and read it, preferably not just once, but two or three times. The first reading will help you understand the issues. The second may make you reflect on your own role. The third may well make you ask what you can do differently. *The Next Twenty Years* has the potential to make us better teachers, better learners, better academic

leaders and, ultimately, better practitioners of management education. The future of management education is not twenty years away. It is being shaped by what we do today.

Book Review 02

From Aspirant to Civil Service: A Winning Approach

(Authors: *Rajen Habib Khwaja and Dr. Sablu Khan. New Delhi: Atlantic. Year of Publication: 2025)*

Ram Kumar Mishra, Kadumuri Neeraja***

Introduction

The Union Public Service Commission (UPSC) Civil Services Examination (CSE) is often described as the "Mount Everest" of competitive examinations in India. Its reputation as one of the most challenging tests of intellectual ability, emotional resilience, and strategic preparation has grown steadily since its independence. Every year, millions of aspirants from diverse backgrounds, urban and rural, privileged and modest, set their sights on this exam, hoping to secure a place in the country's most prestigious administrative services. Yet, the success rate remains astonishingly low, often less than 0.5%.

In this context, the book *From Aspirant to Civil Service: A Winning Approach*, authored by Shri Rajen Habib Khwaja and Dr. Sablu Khan, and published by Atlantic, assumes immense significance. It is not merely another guidebook offering exam tips; rather, it is a holistic framework that blends exam strategies with personal development, resilience, and life lessons. The book is both timely and transformative, offering aspirants a roadmap that extends beyond examinations to encompass broader life goals.

The Challenge of the Civil Services Examination

The UPSC CSE is unique in its scale and rigor. From just 16,000 applicants in 1947, the number has surged to over 3.3 million in recent years. Yet, the number of vacancies remains limited, usually between 700 and 1,000. This mismatch between demand and

---

** President, Management and Social Science Research Center, Hyderabad, India; Extraordinary Professor, Stellenbosch University, South Africa*

***Registrar and Research Scientist, Management and Social Science Research Center, Hyderabad, India*

supply creates an intensely competitive environment. The exam's three-tier structure adds to the challenge:

- *Prelims:* An objective test that filters out most of the candidates.
- *Mains:* A descriptive exam demanding clarity, analytical depth, and strong writing skills.
- *Personality Test:* An interview that assesses temperament, decision- making, and awareness.

What makes the exam particularly daunting is that success is not guaranteed even for brilliant candidates. Intelligence alone is insufficient; success requires consistency, strategy, time management, and mental resilience.

The Book's Unique Contribution

While numerous books exist in the market offering exam tips and coaching strategies, most adopt a narrow, exam-centric approach. They focus on techniques for answering questions, mastering syllabi, or memorizing facts. *From Aspirant to Civil Service: A Winning Approach* distinguishes itself by broadening the scope. The authors emphasize personality development, self-confidence, and emotional resilience. They remind aspirants that life extends beyond examinations and that failure in UPSC is not the end of the road. This perspective is refreshing and necessary, given the psychological toll the exam often takes on candidates.

Structure and Content

The book is organized into six chapters, each addressing a critical dimension of preparation:

1. *Understanding the Civil Services Examination*
    - Provides a detailed overview of the exam's structure, history, and evolving trends.
    - Helps aspirants appreciate the scale and seriousness of the challenge.
2. *Mastering Current Affairs through Strategic Study Planning*
    - Offers frameworks for systematic engagement with newspapers, journals, and digital resources.

- Emphasizes analytical reading rather than rote memorization.

3. *Cracking the Preliminary Examination*
    - Focuses on techniques for objective tests, time management, and elimination strategies.
    - Encourages aspirants to balance breadth with depth.
4. *Excelling in the Mains Examination*
    - Highlights the importance of answer-writing, clarity, and structured presentation.
    - Provides insights into building arguments, integrating case studies, and maintaining coherence.
5. *The Personality Test (Interview)*
    - Explores the art and science of interviews, including communication skills, confidence, and ethical grounding.
    - Stresses that the interview is not merely about knowledge but about character and temperament.
6. *Mantras for Success*
    - Shares techniques for self-motivation, resilience, and coping with setbacks.
    - Encourages aspirants to cultivate positive mindsets and emotional balance.

Vision-Mission Framework

One of the book's most innovative contributions is its Vision-Mission framework, articulated through the 4Ws and 1H: *What, Why, How, Where, and When*. This framework encourages aspirants to align their preparation with broader life goals. It transforms exam preparation from a mechanical process into a purposeful journey. By situating preparation within a larger vision, the authors help aspirants see themselves not merely as exam-takers but as future leaders committed to nation-building. This perspective resonates strongly with the idea of *Viksit Bharat*, a developed India, envisioned through the contributions of dedicated civil servants.

Emphasis on Personality Development

The book's focus on personality development is particularly noteworthy. The authors argue that success in civil services is not just about mastering content but about cultivating qualities such as resilience, confidence, and emotional intelligence. They provide practical tips for:

- *Time Management:* Optimizing study schedules and balancing preparation with rest.
- *Memory Enhancement:* Techniques for retention and recall.
- *Emotional Well-being:* Strategies for coping with stress, anxiety, and fear of failure.
- *Physical Health:* Encouraging aspirants to maintain fitness and vitality.

This holistic approach ensures that aspirants are not only prepared for exams but also for life's broader challenges.

Beyond Examinations: Life Lessons

Perhaps the most inspiring aspect of the book is its insistence that there is life beyond examinations. The authors remind aspirants that failure in UPSC does not define their worth or potential. They emphasize that setbacks should be seen as opportunities for growth and that resilience is the true hallmark of success.

By sharing grounded solutions and motivational insights, the book equips readers to bounce back from difficulties and pursue meaningful careers even outside the civil services. This message is crucial in a society where exam results often carry disproportionate weight.

Contribution to Nation-Building

The book is not merely about individual success; it is about collective transformation. By guiding aspirants to cultivate discipline, resilience, and vision, the authors contribute to the larger project of nation-building. Civil servants are not just administrators; they are architects of policy, custodians of public trust, and agents of change. In this sense, *From Aspirant to Civil Service: A Winning Approach* is more than a guidebook; it is a manifesto for nurturing future leaders who will shape India's journey toward *Viksit Bharat*.

Evaluation and Commendation

On behalf of the Management and Social Science Research Center, Hyderabad, we commend this book as a pioneering initiative. It stands out for its originality, depth, and holistic perspective. By blending exam strategies with life lessons, the authors have created a resource that is both practical and inspirational.

Shri Rajen Habib Khwaja and Dr. Sablu Khan deserve congratulations for this unique contribution. Their work will undoubtedly inspire countless aspirants and equip them to face not only examinations but also the challenges of life with confidence and resilience.

Conclusion

From Aspirant to Civil Service: A Winning Approach is an epoch-making publication. It redefines the way aspirants prepare for civil services by situating exam preparation within a broader framework of personal growth and nation-building. It is a book that speaks not only to aspirants but also to educators, policymakers, and all those invested in the future of India.

By offering pragmatic strategies, motivational insights, and a Vision-Mission framework, the authors have created a resource that will remain relevant for years to come. It is a book that inspires, guides, and transforms, a true companion for aspirants on their journey from dreamers to achievers.

GUIDELINES FOR AUTHORS

AIMS Journal of Management, a peer reviewed publication, welcomes articles on the issues of current interest in management. We publish Empirical Papers, Conceptual Papers, Research Notes, Case Studies and Book Reviews.

Research manuscripts that include Empirical Papers, Conceptual Papers, Research Notes, Case Studies and Book Reviews should be submitted online on the AIMS website at: *www.aimsjournal.com*

Submissions should be typed in Times New Roman font size 12, with 1.5 line spacing and with a 1-inch margin on all sides. The acceptable lengths for different types of articles published in *AIMS Journal of Management* are as indicated below:

a. Research Paper (Empirical or Conceptual): 5000 to 8000 words.

b. Case Study or Research Note: 4000 to 6000 words.

c. Book Review: 1000 to 1500 words.

(Joint) Authorship of Papers: Authors should testify to the authenticity and originality of their papers. In case a paper has more authors than one, each of them has to separately testify that he/she has contributed to the paper and that it is an original creation by them. *AIMS Journal of Management* has a very strict anti-plagiarism policy and hence the authors are expected to submit only authentic and original works to the journal. Any changes in the authorship after the initial submission and declaration should be supported by intimations to the Editor to that effect from the authors who are removed as well as those who are added.

Cover Page: Manuscript of a paper should have a cover page providing the title of the paper, the name(s), address(es), phone, fax numbers and e-mail address(es) of all authors and acknowledgements if any. In order to facilitate anonymous review of the papers, please restrict the author-related information only to the cover page.

Manuscript Title: The title of the paper should be in 16-point Times New Roman font. It should be bold typed, centered and fully capitalized.

Abstract: Following the cover page, there should be an 'Abstract' page, which should contain the title of the paper, the subtitle 'Abstract' and a summary of the paper in single space, not exceeding 150 words. The text of the paper should not start on this page, but on a fresh page with the title of the paper repeated.

Keywords: Abstract must be followed by a list of keywords, subject to a minimum of five. These should be arranged in alphabetical order and be separated by commas with a full stop at the end.

Body of Manuscript: Manuscript must be prepared on standard A4 size paper setting. It must be prepared on a 1.5 spacing and single column with a 1-inch margin set for top, bottom, left and right. It should be typed in 12-point Times New Roman font with page numbers at the bottom-centre of every page.

Headings: All section headings should be in 14-point Times New Roman font and sub-section headings should be in 12-point Times New Roman font. These must be bold-faced, aligned left and fully capitalized. Leave a blank line before each heading.

Figures, Tables and Exhibits: Each Figure, Table, or Exhibit should be printed on a separate sheet. Figures, Tables and Exhibits are to be separately numbered, titled and attached at the end of the text serially. The position of the Figure, Table, or Exhibit should be indicated in the text on a separate line with the words "Table 1 about here". All Figures, Tables and Exhibits must be presented in line with American Psychological Association (APA), 7th Edition guidelines.

In-text Citations: Indicate the position of the reference in the text within brackets by the author's last name and the year of publication; e.g.: '(Porter, 1980)' or incorporate it into a sentence, e.g.: 'as pointed out by Hannan and Freeman (1977)'.

References: References should be cited in the style prescribed in the Publication Manual of the American Psychological Association (APA), 6th Edition. At the end of the text, references should be listed in the alphabetical order of the last names of the authors, with a title REFERENCES (left-aligned) in *14-point Times New Roman*. Examples of how the references are to be listed at the end are given below.

Notes: Do not use footnotes. Minimize endnotes. If they are unavoidable, number them serially in the text using superscript and list them together on a separate sheet under the heading NOTES immediately following the text of the paper. Notes are not for citing a reference but for offering a significant explanation, which is important for understanding the text, but is tangential to the main idea discussed therein.

Revised Manuscripts: At the end of the blind review process, the editor will inform the author about the acceptance or rejection of the manuscript. On acceptance, the author is expected to incorporate the modifications suggested by the reviewers, if any, and submit a soft copy of the final revised manuscript.

Policy against simultaneous submission: Authors should ensure that the manuscript submitted to *AIMS Journal of Management* is not simultaneously submitted to any other journal or publisher. Similarly, it should not be submitted anywhere else during the pendency of the review process which would take 6 to 8 months. Once a manuscript is accepted by or published in *AIMS Journal of Management*, it becomes the property of AIMS, whose permission is required for any operations covered by the Copyright Act.

Chairman
Editorial Board

Edited and Published by Prof (Dr) Upinder Dhar
on behalf of The Association of Indian Management Schools (AIMS)
Typeset and Printed by Balaram Graphics, Hyderabad

ISSN 2395-6852