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About the Journal

The journal is born out of IMI Bhubaneswar's emphasis on one of the key pillars of its sustenance–research. IMI Bhubaneswar, a young institution with a rich legacy, has always been at the forefront to push the horizons of research awareness within the academic fraternity. The journal aims to serve as a forum for creation and dissemination of knowledge on innovations and its application to solve challenges in business management. The journal is international and interdisciplinary in nature.

The main focus of the journal is to provide a platform to the academicians and practitioners to discuss innovations and their implications on business management and processes. It focuses on bridging the gap between academia and industry for cross fertilization of ideas leading to effective dissemination of innovative solutions in emerging areas. The journal features research papers across function areas on topics such as customer relationship management (CRM); market segmentation; supply chain management; data mining tools & techniques; block chain; artificial intelligence (AI); internet of things (IoT); customer lifetime value (CLV); economics of information technology; cloud applications; cyber security; mobile computing; geographic information systems (GIS); information systems and ethics; sustainability; green computing; digital marketing; social media; social analytics; supplier relationship management; enterprise solutions; virtualization; cognitive science; governance; entrepreneurship; design thinking; VR or augmented based learning and development; HRMS and HR score card; people analytics; automation in performance management; algorithm trading; RegTech; and FinTech.

The journal is primarily an application-oriented journal and therefore invites research papers that are based on evidence and produce findings that are implementable. The journal is impartial towards methodology used as long as it is robust and relevant.

The journal is open access, and the articles would be published under the Creative Commons licenses.

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Aims and Scope

IMIB Journal of Innovation and Management offers a platform for interface between emerging business management problems and evolving innovative techno-management solutions. It serves as a platform for seamless integration of methodological, technological and disruptive developments, and their business applications. We publish articles which address research in technology, techniques, processes and applications in business. The journal, therefore, bridges the gap between academia and industry for cross fertilization of ideas leading to effective dissemination of developments in emerging areas.

IMIB Journal of Innovation and Management is an interdisciplinary journal in the area of business management which captures developments in technology to facilitate application in business. The journal facilitates dissemination of knowledge on shifting techno-management paradigms and maps its cascading consequences on various facets of business (Marketing, Finance, OB HR, Operations, Strategy, Entrepreneurship, etc.). We encourage research that investigates the impact of innovations on various stakeholders such as customers, vendors, partners, etc. In pursuit of this endeavor, we publish scholarly research as well as practice papers offering unique insights.

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Commentary

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Editorial

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Welcome to the January 2024 issue of our research journal "*IMIB Journal of Innovation & Management*" (JIM). This is the first issue of Volume 2 of our journal, which includes research articles from multi-disciplinary areas of management. I am happy to share that over last one year, submission of quality research papers by the academic community to our journal has increased by manifolds and becoming bit difficult for our editorial team to reject and/or ask for revisions, which speaks about the quality response the journal started getting. We have already started the process of getting the journal indexed with some of the leading databases.

We are in the era of technological innovations because of which the businesses are undergoing major transformational journey. In this challenging competitive marketplace, the integration of cutting-edge technologies by businesses have become the key driver to success.

Artificial Intelligence (AI) and Machine Learning (ML) are the key technological innovations of the current decade that are reshaping the management paradigm. These technological tools have become critical because of their capacity to analyze and interpret large amount of data at unprecedented speed, which helps the decision maker with valuable insights about their business. Artificial Intelligence is being used to drive innovation and long-term sustainability by optimizing processes, predicting market trends, and improving overall business efficiency.

Blockchain and Internet of Things (IoT) are another two technological innovations of the current era that are changing the way we do businesses. As businesses have become more digital, challenge of authenticity, integrity, security, accountability, and transparency becomes more serious, implementing Blockchain into business practices will help in fostering the culture of integrity, accountability, and transparency. With the availability of more smart devices, IoT enables proactive and predictive decision making to improve efficiency in a sustainable business.

For innovative businesses it is not only important to integrate technological innovations but also to consider nurturing a culture of Creativity and Progress. Businesses need to create more open working environment for their employees, where they are empowered to participate and discuss in an open manner. Businesses that are building culture of innovation, will attract quality talent which can handle current business challenges. Number of Indian leading companies like Tata's, Infosys, Mahindra & Mahindra, and many more have embraced culture of transparency and openness.

Businesses are increasingly leveraging technology to create platforms to facilitate ideation and collaboration across teams and locations for effective innovation management. To gather collective intelligence of their workforce, businesses are using techniques like open innovation, and crowdsourcing etc. The democratization of innovation process helps businesses to generate new ideas and create belongingness to new initiatives. Wipro for example invites students and educators to contribute ideas and projects aimed at addressing environmental and social challenges. Likewise, HUL connects with startups for enhancing collaborations for innovation in marketing, technology, and sustainability. By engaging stakeholders, a number of businesses are navigating the complexity of business environment while driving innovation.

Innovation for growth-oriented businesses is a continuous process that requires perfect alignment with strategic goals of the organization. Innovative leaders play critical role by bringing the right mix of culture and technological innovation into their business. In the digital age, it is important for all businesses to embrace emerging technologies like AI, Blockchain, Machine Learning, etc. while maintaining a perfect balance on culture of creativity for growth. Integrating innovation into business practices is a competitive necessity for all businesses.

JIM strives to attract and engage with researchers, academicians, and corporate leaders in the area of Innovation and Management. It provides a perfect platform to researchers to publish their work in the emerging areas of business and evolving techno-analytical solutions. One can contribute any research paper, case study, book reviews, innovative pedagogical tools & techniques, and innovations to our journal. All papers are double-blind peer-reviewed to maintain the quality of publication.

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Article

Investigating the Determinants of the Innovation Adoption for Continuous Improvement in a Teacher-Training Institution: Evidence from the COVID-19 Period

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Abstract

We are living in an ever-changing world. The changes in science, technology and economics constantly impact areas closely related to human life, such as education and health. Organisations must rely on innovation to remain relevant and effective in a constantly evolving society. Educational institutions, namely schools, colleges or even training institutions, contribute to product innovation when they produce new and significantly different products and services such as new syllabi, new resources or new educational experiences like e-learning. They carry out process innovation when they bring about significant changes in how they provide their service, for instance, changes in the way their teachers work together, communicate with parents or offer services in collaboration with other institutions. With the onset of the medical catastrophe of COVID-19 and the pandemic thereafter, the education sector plunged itself into adapting to the use of technology to keep its service functional, albeit with significant challenges faced in its effective implementation. In this article, the focus is on studying technology implementation in an early childhood care teacher-training institute to establish service innovation in education in the post-pandemic era. Multiple

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perspectives were derived from all the stakeholders, such as student-teachers, teacher educators and heads of schools (as future employers) regarding teacher preparedness and student-teacher readiness. The inputs helped us to develop the conceptual model for future teaching-learning. The conceptual model A.D.O.P.T. (Act with growth mindset, Deliver Quality, Open to Adaptation, Prioritize with Precision, Team Engagement) highlights how the stakeholders move from makeshift 'jugaad' innovation to sustainable development of the educational system through grassroots innovation.

Keywords

Service, innovation, hybrid learning, teacher training institute, early childhood care

Introduction

The modern society is a knowledge society (Audretsch, 2014; Etzkowitz, 2013; Lorentzen, 2009; Narasimharao, 2009; O'Shea et al., 2005). It is proven that different regions, states and countries have varied economic and social development. Universities have begun to play a more significant role in the growth of the economy and society in general (Etzkowitz, 2003a, 2003b), making them an essential component of innovation systems (Etzkowitz,1998). All educational institutions must constantly innovate to contribute to the knowledge systems.

There are some characteristics of innovation that are identified over time, namely (a) tangible aspects in an organisation or across multiple organisations, such as product, process or procedure; (b) it is new to the organisation to which it is introduced and not new in the introduction; (c) it is not a routine change and (d) there should be measurable outputs that are universally identified.

Furthermore, for innovation to be sustainable, educational organisations must ensure the following: (a) a triangular relationship between social policy (governments and social partners), practice (teachers, learners and other larger audiences) and research groups with a common agenda for these actors; (b) there needs to be a cross-institutional transfer of innovation across organisations and (c) there is an integration of changing learning environments, content, methods, media, validation and assessment, teachers and trainers in a structural manner.

It is noteworthy that the innovation for education and training is still at the very nascent stages (Shapiro et al., 2007). As per Rogers, who was considered a pioneer in sociological innovation studies, there are three types of innovations: (a) individual-based innovation, (b) organisation-based innovation and (c) innovation by few individuals with authority in the organisation. In an education system, innovation belongs to higher authority and the organisation is driven by or percolates through to other stakeholders in the system. It was also believed that the adoption of innovation would be adopted with an increased rate (Rogers, 2003a, 2003b).

Researchers have often highlighted the criticality and importance of a 360-degree change in the education systems. The literature also observed that the changes in the university systems extensively are made from the perspective of innovation (Clark, 1998) and entrepreneurship (Clark, 1998; Etzkowitz, 2003a, 2003b, 2013; Urbano & Guerrero, 2013; Yusof & Jain, 2010). There needs to be a shift from traditional teaching and learning practices to more innovative ideas. Interaction between the industries, government and universities is necessary for socio-economic development, forming part of the triple helix model (Etzkowitz, 1998; Goldstein, 2010; Sardana & Krishna, 2006; Yokakul, & Zawdie, 2009). Still, there remained resistance to any significant change until COVID-19, and the related pandemic ensured that all stakeholders were forced to innovate and change to stay relevant (Pokhrel & Chhetri, 2021; Selvaraj et al., 2021).

The COVID-19 and the pandemic it triggered had global influence. Several governments, notably the Indian government, imposed lockdowns to stop the spread of the virus (Sintema, 2020). They touched various industries, including education. Different countries closed schools and educational sectors (Kuensel, 2020). Multiple strategies were used to keep the teaching-learning process going.

Despite the disruption and health difficulties caused by the pandemic, many believe that it has presented a chance to implement digital teaching and learning (Dhawan, 2020). The desire to keep educational institutions open for as long as possible encouraged stakeholders to innovate.

This article has studied a teacher-training institution as a real-life case. We have analysed the perspectives of different system stakeholders and the innovative practices that came into being during this period. This research article is divided into the following sections. The second section highlights the theoretical background of innovation, innovation in education and the research motivation. The third section highlights the methodology; the fourth section is the case illustration section that gives details of the teacher-training institution and the case considered; the fifth section covers the analysis and discussion based on the case; the sixth section details about the proposed conceptual model A.D.O.P.T.; finally, the seventh section concludes the article and provides the future scope of the article.

Theoretical Background

To better understand the proposed conceptual model, it is essential to determine the background behind the model. The underlying concept is based on innovation in a given system. Particularly in this research, we have focused on innovation in the education system. In this section, we highlight: What is the concept of innovation? What are the varying types of innovation? What is the role of innovation in economic growth and development and in education?

This research aims to assess whether the system under consideration is carrying out innovation (Harvard Business Review, 2013; Ridley, 2020; Rogers, 1983, 2003a). If yes, then whether it is implementing innovation to a level of satisfaction as per standards. To assess whether a system has the capability of innovation, we need to highlight the basic characteristics of innovation. Further, keeping in mind the theoretical background, we also highlight the research gap for the study and state the research questions.

Many have spent decades trying to grasp the concept of innovation. In many circumstances, numerous constant patterns have been observed, whether low or high tech, huge or little, disruptive or helpful or both. One thing is sure: innovation has never been instantaneous but incremental (Ridley, 2020). Also, innovation is distinct from invention. Ensure that the invention reaches the market to benefit the customers. Innovation is sometimes accidental and fortuitous. Innovation results from numerous technologies together—for example, Google self-driving cars, Facebook and Instagram. Often, innovation involves trial and error.

To innovate, a team must work together. Norman Borlaug's tenacity and ambition spawned the famed green revolution in agriculture. Many people around the world triggered the main notion. The innovation hype cycle varies. People exaggerate the short-term impact of new technology while underestimating its long-term influence. Innovations necessitated more dispersed control stifles creativity. It also saves resources and tries to produce more. It is a multi-dimensional concept. In the following sections, we will explore different elements of innovation and some recent study definitions. We strive to connect the sorts of innovation to the educational situation (Fullan, 2007; Krishna & Krishna, 2005). This linkage of innovation and education will eventually lead to system evaluation based on innovation implementation (Rogers, 2003a, 2003b).

Role of Innovation in Economic Growth and Development of Society

How societies are now described is based on the knowledge that they develop. A knowledge-intensive society is one in which the majority of group members help in the production and reproduction of knowledge (OECD, 2014). For the past couple of decades, various jobs in production, processing and transferring knowledge and information have emerged. These jobs were initially only in the high-technology and information and communications service sectors and subsequently across all other sectors.

Establishing economic development can only be possible if knowledge creation takes place. Over time, it is well established that creating new knowledge or using existing knowledge in innovative ways leads to overall economic growth and development. Further, the progress of science and technology at an accelerated pace leads to knowledge creation. The more the creation of knowledge, the more innovation is needed, and it, in turn, leads to the development of society in different dimensions (Narasimharao, 2009). It is also concluded that the link between knowledge and economic productivity and growth is based on two pillars: (a) innovation, which leads to the creation of new knowledge and its application to new or better products, service processes and many organisations, or the application of existing knowledge and technology to new contexts, and (b) training and development, which leads to a skilled and better workforce that aids in the application of new knowledge and information, or the application of existing knowledge and technology to new contexts.

These two main pillars can further be related to education and training to deliver the human capital necessary for innovation capacity development in society. There is a significant consensus that the following aspects are essential: (a) education and learning: there is a need to keep reforming the education and training systems so that they can respond to the needs of the knowledge society, high level of skills and continuous learning throughout life[1] and (b) investment in research and development, promotion of enterprise development and collaboration between organisations.

Role of Innovation in Education

The notion of innovation is sometimes unclear and not always agreed upon (Adams et al., 2006; Sidorkin & Warford, 2017). The literature has extensively discussed innovation. In this study, the context of each innovation type is considered. 'Jugaad' is a popular kind of innovation. According to Prabhu and Jain (2015), it is the art of generating effective solutions in a system with limited resources. Brem and Wolfram (2014) compared innovation kinds. They said jugaad innovation is simple; Gandhian invention is simple to medium; catalytic innovation, frugal engineering and indigenous innovations are medium, and reverse innovation is high. The study also explored the sustainability of different types of innovation, with 'jugaad', frugal engineering and reverse innovations being the least sustainable and Gandhian, catalytic, grassroots and indigenous innovations being the most sustainable innovations.

Smirnov (2017) gave a pragmatic definition of innovation. This definition is termed grassroots innovation and considers any educational initiative taken by a teacher, a student or an entrepreneur to work on it individually or as a small group. According to this definition, irrespective of which definition of innovation holds for the educational initiatives taken, it remains imperative to assess the viability and potential impact of the initiative. Carter et al. (1996) state that the project in educational innovation essentially must survive the early stage for sustainability in the future. It can further be seen that if the project survives the obstacles, then growth can be the basis of its success.

Innovation is often used in businesses and has also been adapted to the education context from the Oslo Manual (OECD, 2005) by OECD (OECD, 2014). As per the report,

> Educational organizations introduce (1) new products or services, (2) new processes for delivering services, (3) new ways of organising their activities, (4) new marketing techniques. These new practices improve the provision of education in one way or another, and therefore innovation in education should be regarded as 'improvements'.

There is always a debate about which activities would be considered improvements. Some of the activities may only benefit one group of people, maybe the low-income families but not the high-income families. Thus, it is unclear whether such activities should be considered an innovation. Amidst this ambiguity, many activities are considered to be innovations. This includes the use of learning management systems being tagged as an innovation (Soffer et al., 2010), or a student internship abroad (Spiering and Erickson, 2006) or change in the style of lecture (OECD, 2014).

Research Gap and Motivation

The study will assess the level of innovation in an educational system in India. The education system has attempted to adopt changes for the past several years. However, due to the pandemic, the innovation got dispersed in the system at a catastrophic level. To the best of our understanding, many have discussed the role of the education sector in times of a pandemic. Not many researchers have discussed it from the point of educational institutions' role in developing knowledge society. Some of the significant gaps addressed in the study:

1. We are studying the educational ecosystem for the implementation of innovation in India.
2. Establishing the quality management structure for the continuous improvement of the education system has not been addressed in the literature sparingly.
3. We are determining the impact of the pandemic on the implementation of innovation from the case point of view.

Research Questions

After getting an idea of each type of innovation, we assess the following:

1. What is the extent of innovation implemented in the given system under study?
2. What is the type of innovation implemented?
3. What were the actions taken to improve the level of innovation if the system stakeholders had implemented innovation?
4. What actions should be taken to build a sustainable, innovative system?

Methodology

As discussed in the previous sections, Rogers diffusion of innovation theory (Rogers, 1983) is also widely used in the educational setting (Shea et al., 2005; Spiering & Erickson, 2006; Soffer et al., 2010; Warford, 2005). In this theory, the innovation is shared with the members of the social systems via many different channels (Rogers,1983, 2003a, 2003). The success of diffusion of the innovation depends on the characteristics, the social environment and the change agents around it. We developed the design to determine what changes are made at various levels to ensure the success of innovation. Figure 1 describes the study's research design and helps to understand whether innovation characteristics hold for the teacher-training institution in our research.

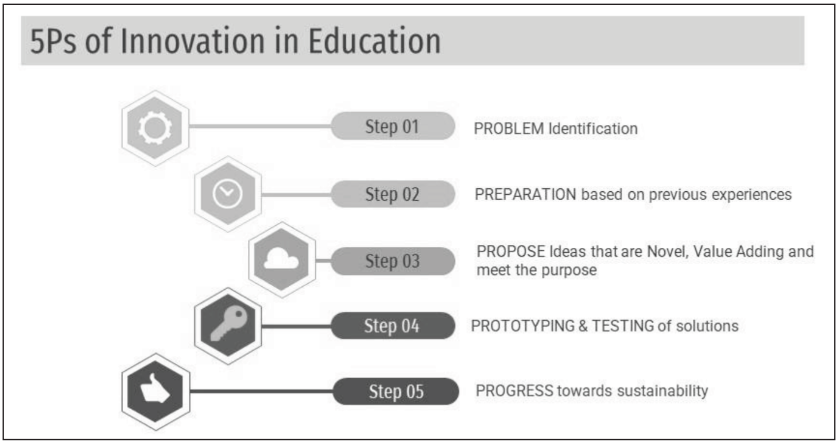

Figure 1. Framework of the Study.

Source: Adapted from Serdyukov (2017).

Further, it is essential to understand what aspect of innovation would lead to the sustainable development of the education system in any situation. We have reviewed the case institution keeping this as a background. The objective is to assess the extent of innovation implemented. On the other hand, if innovation has not been implemented or has not been implemented up to the standard level, we will propose suitable changes to make the system sustainable. Figure 1 highlights the framework of the study.

Case Study Design

As per Yin (2014), case study research involves studying a real-life contemporary context. The case may be an individual, a small group, an organisation or a partnership. Some authors, such as Stake (2005), suggest that case study research is not a methodology but a way to choose what must be studied. Yet others present this as a methodology or a comprehensive research strategy (Denzin & Lincoln, 2005; Merriam & Tisdell, 2015; Yin, 2014). Usually, a case study is considered a qualitative approach. The investigator explores the contemporary situation over time in a detailed manner and collects data from multiple sources such as interviews, documents and reports. The unit of analysis may be one single unit or numerous units of the study.

In this article, we have considered the view of Yin (2014) and taken the case study as a methodology. This approach helps us study the teacher-training institution and the innovation brought in the system. For the analysis, we considered multiple stakeholders of the institution as our units of analysis. We have tried to understand different stakeholders' perspectives through various interviews and brainstorming sessions. The stakeholders here include the teacher educators, the student-teachers and heads of educational institutions (future employers). The primary objective is to study innovation in the teacher-training

Identification of specific case to be studied

- We have identified the educational system that will be reviewed for the implementation of innovation and, in addition to that study, the impact of the pandemic on the performance of innovative methods

The case is bounded

- An institution's location under study is Mumbai, India (name confidential); the timeframe is the beginning of pandemic to the current time period of the pandemic. There are specific parameters that define the case. The evaluation will happen for both the first and second years of implementation.

The case may be intrinsic or instrumental

- In this article, we are trying to understand educational institutions' particular problems during moments of disruption and the coping mechanisms so that innovations can be incorporated into the system to avert the crisis in the best possible manner. A case study that needs to be studied in detail may be called intrinsic while a specific issue or problem is called instrumental.

Many sources of data

- Multiple data sources in the case study such as interviews of the stakeholders of the teacher training institutions, and materials in the forms reports and audio-visual materials, were used.

Selection of how to approach to analyze the data

- There are multiple units of analysis that have been taken within the single educational institution under consideration. Stakeholders such as the teacher educators, student-teachers and heads of educational institutions (as future employers) and their perspectives have been considered.

Case Themes

- The case description identifies case themes such as change management for innovation in an educational system, and associated difficulties. The results include both the case and the concerns discovered by the researchers.

Case Assertions

- The case study ends with the researcher's conclusions based on the case's material. These are explanations (Stake, 1995; Yin, 2009). We evaluated an educational institution's innovation implementation. The conceptual model asserts the numerous aspects that must be applied to continuously develop the system based on the current structure.

Figure 2. Details of Case Study.

institution. More specifically, how this innovation has been implemented and the features needing improvement to ensure sustainable innovations. We also study the influence of the pandemic on innovation in the system and how the institution has shifted from ‘jugaad innovation’ to finally ‘grassroots innovation’ for developing a long-term sustainable institution.

The case study method has specific characteristics (Denzin & Lincoln, 2005; Merriam & Tisdell, 2015; Yin, 2014). Identified in Figure 2 are the details of the case study that shows the linkage between these characteristics and the research in context.

Case Illustration

In this article, the specific case study evaluates how well innovation has developed and diffused into the case of a teacher-training institution (name not mentioned due to confidentiality) in a disruptive environment due to the pandemic. The COVID-19 pandemic affected every country, state and city worldwide, impacting all sectors, including education. Overnight when people from various schools and colleges were asked not to come to work, every person had a question: What would be the next step?

In this research, we have attempted to consider the perspective of three different stakeholders: (a) teacher educators, (b) student-teachers and (c) heads of educational institutions (future employers), to assess the system as a whole and how each group managed the crisis brought about by the pandemic. The research aims to understand whether the incorporated methods helped the system function as smoothly as possible in a crisis. Further, we try to assess the current level of standard in the teacher-training institution from every stakeholder's perspective and the process improvements.

The institution being assessed is a teacher-training institution that predominantly trains student-teachers for early childhood centres and schools. Taking this specific institution had multiple purposes. While the pandemic affected educational institutions and university departments, they all implemented changes to educate their present pupils better. But a teacher-training institution's impact lasts for years since it prepares future teachers who will be accountable for ensuring quality education for many generations to come. The institution under study offers numerous programmes in early childhood care and education (ECCEd) through two campuses in Mumbai and Navi Mumbai, India.

We included teacher educators, student-teachers and educational leaders in the case study. We worked with these stakeholders to understand their teaching-learning practices prior to the pandemic and what changes they needed to make. We studied their interdependence to see how they met various demands and if any modifications were required to keep the system sustainable. Figure 3 depicts the stakeholder system and its interdependence. Teacher educators prepared student-teachers for future employment. Teachers conducting online instruction for their pre-primary kids were the focus of the pandemic's first and second phases. The third phase would involve recruiting future-ready teachers.

Timeline of the Case

The stakeholders of the system made plans across the three phases: (a) a contingency plan at the start of the pandemic under sudden disruptive conditions, (b) a medium-term plan to ensure teaching-learning practices were not disrupted under the lockdown scenario and (c) a long-term plan for developing a sustainable educational system for future. Figure 4 describes these three phases. The sections that follow discuss the three phases in detail.

Analysis and Discussion

As Netolicky (2020) notes, in a crisis, leaders must act swiftly and with foresight and careful consideration of options, consequences and side effects of actions taken. Given the teacher-training institution crisis at the very beginning of the COVID-19 pandemic, it was evident that each of the stakeholders felt that there would be a need for change (Harvard Business School Press, 2007). Many uncertainties existed, and it was still unclear how the day-to-day activities would be performed. Over a short period, everyone came to terms with the fact that there would be a long lockdown period. It was realised that one could not continue in the makeshift arrangement like the initial period. There was a need for a plan. Planning to go online for a few days was very different from going online for a minimum of one semester, given the pandemic conditions. Undeniably in a few months, the COVID-19 virus became a 'supernova' (Azorín, 2020), creating

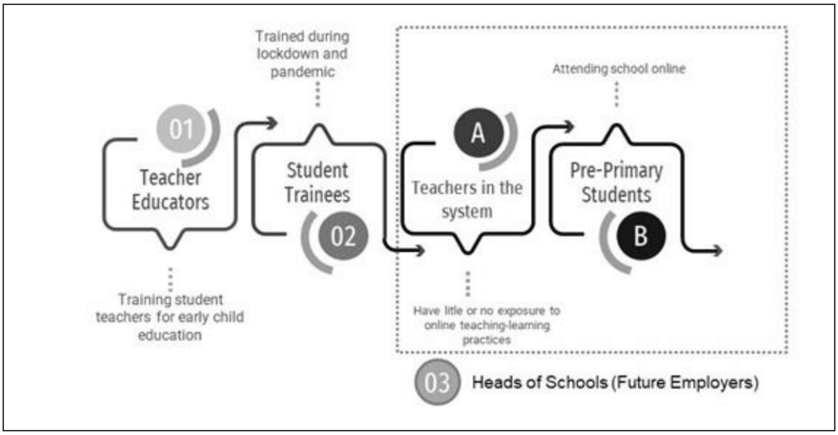

Figure 3. Early Childhood Care and Education System and Its Stakeholder Relationship.

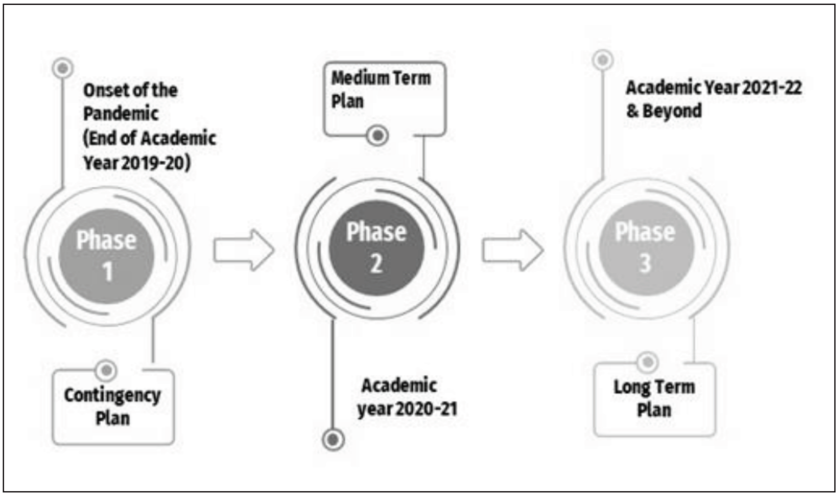

Figure 4. Case-Study Timelines.

'undeniable chaos' (Hargreaves & Fullan, 2020) and shaking the very fabric of education. Thus, it required a lot of thinking and preparation. Unfortunately, however, improvement efforts in education break down more often than not because these efforts overlook the complex interdependencies across the system, which gets in the way of effective implementation (Arnett & Moesta, 2021). With the given situation where no one was left with an option, everyone had to ensure that they performed well to make changes in the system.

For teaching-learning as a process that exists in an educational organisation, the aim is to improve the process continuously. The need for continuous improvement is always to address the challenges that exist in the system. In the analysis of the situation, it is noteworthy that the stakeholders in the system need to identify the challenges that exist in the system currently. Once the system's current status is understood and challenges are identified, it is always easy to structure steps to be taken for the future, though continuously improving the system at each stage. For a continuous improvement of the system, we usually address three essential questions: (a) What is the problem that one is trying to address? (b) What changes in the system one wants to bring about and the reasons for implementing these changes? (c) What indicator shows that the change has brought improvement?

Most definitely, the pandemic gave impetus to this change. The changes that need to be made in any system take a collective effort, differ in different contexts and always require adaptation, data collection and continued new learning (Bessant & Caffyn, 1997; Bhuiyan & Baghel, 2005; Langley et al., 2009). Many players involved in a system need to focus on specific problems in practice and always find ways to improve the processes continuously through iterative cycles. The changes required in the system may be a set of new approaches, tools or different strategies to address the problem (Bryk et al., 2015). With the changes, the stakeholders in the system reskill and upskill themselves to change and then test the new practices, further refine changes based on requirement and then implement the recent changes on a larger scale over time (Langley et al., 2009). It can be highlighted that the continuous improvement can be seen to have the following principles: (a) changes required take time and involve collective effort (Bryk et al., 2015; Katz et al., 2009), (b) the context needs to be specified and (c) there have to be multiple series of small changes, combined with a lot of evidence that can lead to large-scale change (Derrick-Mills et al., 2014; Hawley, 2006; Park et al., 2013; Snow et al., 2017).

Keeping in mind the idea of continuous improvement, we collected the data from stakeholders—teacher educators, student-teachers and heads of educational institutions of the system—to highlight how each stakeholder played a role in improvement at each stage.

Coping with the Initial Disruption Student-Teachers of the Teacher-Training Institution

Student-Teachers at the End Academic Year 2019–2020 and Those Joining the New Academic Year in 2020

Multiple questions were posed to the student-teachers of the training institution at various levels. Those questions were related to the course completion and the impact of the online training structure on learning, their recruitment or starting the new academic year.

Teacher Educators and Dean of Institute

This group consisted of six teacher educators and the dean of the teacher-training institution. The dilemma they faced was how they would continue the teaching-learning process. In the initial phase, the focus was to have a makeshift arrangement for classes, to continue as smoothly as possible. Teachers did not know how to connect; some connected through their phones using video applications such as

Zoom, Webex, Microsoft Teams and the like. Others sent recorded lectures or notes through email, WhatsApp or other formats. While these solutions initially seemed appropriate, the real question remained: Were these solutions sustainable in the long run?

Not surprisingly, each day presented new obstacles. After finishing the subject content, the educators had to complete the evaluation. The instructors' main issue was how all student-teachers would be assessed, especially if it was done online. Several questions arose. Every day, teachers-educators were plagued with queries ranging from the simple to the sophisticated. How to connect with student-teachers all across the world? Concerns about internet connectivity during the assessment? How would they examine ethical malpractices? These are only a few of the questions that the teacher, educators and dean discussed. This phase was semi-structured; each teacher educator chose their evaluation methods, such as phone interviews or online exams. The question remained: Were their actions sufficient, or did they need to do more? The problem for teachers satisfied the system's and student-teachers' diverse needs.

Heads of the Educational Institutions–Future Employers

For any teacher-training institute like in the given case, one of the most important stakeholders and an essential part of the chain are the early learning centres and the pre-primary and primary schools that employ the future student-teachers. At the start of the pandemic, like all other organisations and set-ups, the heads of these institutions also faced the question of how the teaching-learning process would continue. The challenge was far enhanced because their students were the toddlers and the young children for whom starting online classes was unheard of. The institutions were not sure of what formats they would follow to create the learning environment for their young students, and also, if they hired a recruit, how would they train the recruit in the practices of their schools.

Evaluation of the Initial Teaching-Learning Practices

After handling online teaching in the COVID-19 pandemic situation for a year, we assessed the system. All the stakeholders were able to reflect on the happenings last year, what is currently happening and what will happen. Continuous improvement is a well-known quality management tool, and we use the framework of specific quality management tools to analyse the system better. We utilise the Plan, Do Study and Act (PDSA) cycle as proposed by Deming (Katowa-Mukwato et al., 2021; Moen & Norman, 2006; Taylor et al., 2014) as the background for a framework for continuous improvement. We have analysed the situation of one year of the pandemic and attempted to examine ways to improve the system for the future. We want to understand what innovative measures we can take so that the educational system works as smoothly as possible. The sections that follow detail the plan of action based on inputs from the stakeholders about the teaching-learning practices.

Student-Teacher Evaluation

As discussed in the methodology section, we conducted interviews with the student-teachers to understand their perspective on how the design for online teaching and learning of the teacher-training institution worked for them in the disruptive phase of the pandemic.

We interviewed a mixed batch of 15 student-teachers of ECCEd courses at the teacher-training institution. The student-teachers of the ECCEd course were interviewed one-on-one through online mode. The interviews were about 45 minutes to 1 hour long. In the unstructured interview, we understood the working of the educational system.

Figure 5 depicts the insights highlighted by the student-teachers. The student-teachers had overall positive feedback about how the system functioned in the given crisis. However, some aspects were missed out, like observing the lessons of senior teachers or being able to take sessions during internships. From the respondents' reactions, it could be established that they would prefer an offline mode. Those who did say that they wished to be online were only comfortable with a hybrid model and not a completely online one in the future. Going entirely online for many subjects is not possible in the current state. Also, going online is not possible as social interaction is necessary for student-teachers, and thus, it is essential to maintain a mix of environments for learning.

Teacher Educator Evaluation

The teacher-training institute played a crucial role in analysing the modalities of all teaching-learning processes during the pandemic. The self-evaluation helped address what innovations were brought about from 'jugaad' innovation (under the sudden disruption and change) to grassroots innovation for sustainable

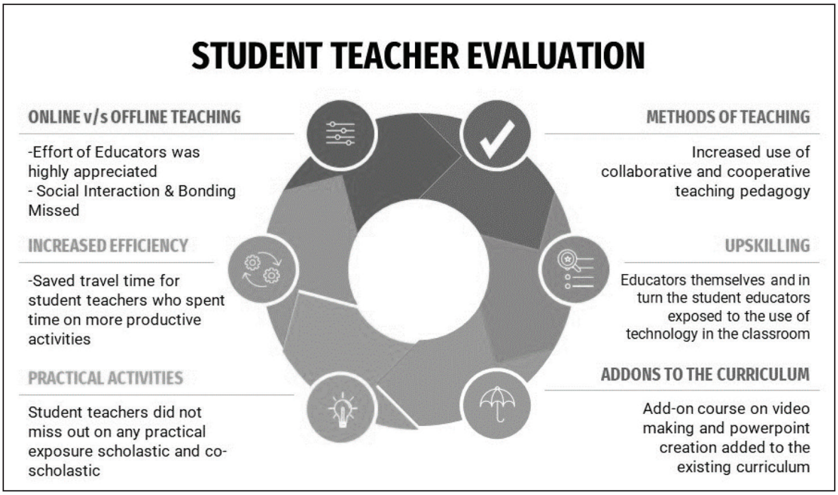

Figure 5. Insights from the Student-Teacher Evaluation.

development if it has to last and support a system for a considerable period of time in the future (Smirnov, 2017).

A brainstorming session was conducted with all the teacher educators participating. We addressed the innovations brought about by them at each stage, keeping the PDSA cycle in mind. The brainstorming session lasted for over 2 hours. The underlying structure of PDSA was given to the teacher educators, keeping in mind that continuous improvement had to be made for the system to function effectively. At each stage, with extensive discussion, we assessed how the system worked. Depending on how the system worked, we understood how the system needed to be changed to achieve better. On the basis of the details of PDSA,[2] we were subsequently able to develop a conceptual framework for future continuous improvement.

Plan Phase**:** Changing industrial demands over the last decade meant substantial changes in education. The COVID-19 pandemic supplied essential momentum to the existing undercurrent of transformation. We highlight the teacher-training institution's phase-by-phase plans to improve the system continuously.

In the current framework of planning for the teaching-learning process in the educational system, contingency plans had to be created in Phase I to keep the system running. Phase II focused on areas not covered in Phase I, after the stakeholders had experienced Phase I. The goal was to improve future planning for sustainable systems. With Phases I and II completed, the teacher-training institution could better plan for the future. Phase III planning included more precise methods for the new batch and future sustainable systems. Figure 6 highlights the planning phases.

Do Phase**:** In this phase, the idea is to implement what is planned for, that is, whether in this current case, it may be a contingency plan or a long-term plan. The plan is implemented and then studied to see how it gets integrated into the current educational system.

Phases I and II: Learning MS Teams in collaboration with all faculty; learning how to make videos for pre-recorded lectures; e-internship; virtual field visits; admissions till December 2020; multiple choice questions for evaluation; proctoring as best possible by teacher educators for exams; Sharepoint for data sharing; admission from India and abroad; enterprise resource planning implementation for standardisation to highlight some; and there were many smaller implementations in the entire overhaul of the system.

Phase III: Due to the tragic nature of COVID-19, many teacher educators and student-teachers view the needs of students from a new perspective. Facilitators would need to handle and aid student-teachers deal with stress levels and the overwhelming requirement for assignments and online teaching and learning assessment. In addition to personal empathy, facilitators must use new instructional methodologies. Many new applications and debates were released during the year, allowing teacher educators and student-teachers to understand the teaching-learning process better.

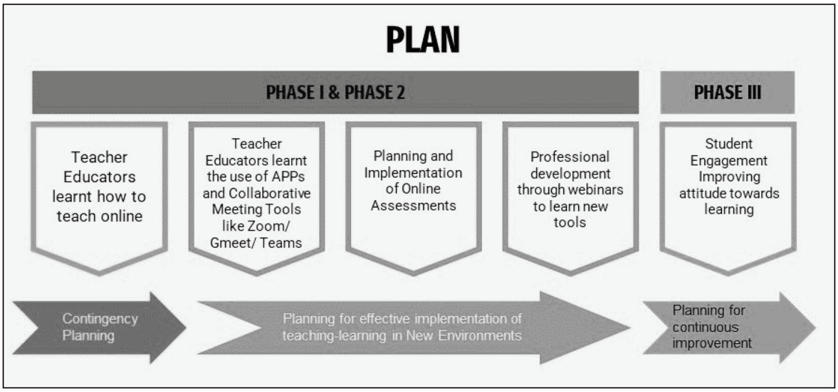

Figure 6. The Planning Phases.

Study Phase: When we implemented a brainstorming session for the teacher educators, they brainstormed extensively and analysed the system. They were able to highlight the causes of the significant innovation for continuous improvement. The fishbone diagram in Figure 7 helps segregate the reasons in broadly six dimensions: man, method, machine, material, measure and milieu. Further, the sub-branches of the leading causes highlight the main actors and system components that led to the innovation in the system. It must be understood that highlighting the reasons does not mean that all the factors may be accurately functioning. If there are some flaws in the design, then after analysis, the flaw would be rectified. Appropriate actions were either taken between Phase I or Phase II of the pandemic or will be taken in the system while making the institution sustainable in Phase III and beyond.

Given that there are always ongoing improvements that are needed, the system is evolving day by day to make the teaching-learning process as seamless as possible with the help of the stakeholders of the system. Highlighting a few flaws that were observed in this phase: (a) for instance, in the sudden movement of the teaching-learning process online, reference books were not always available; (b) staff, whether administrative or teaching faculty, were not initially being able to adapt to the new sudden changes in the system and maybe they have still not adapted to the system complexity; (c) assessment and proctoring were not perfect but near perfect given the constraints and (iv) not everyone is privileged to have all machines and equipment with them. It is necessary to address these issues and need to be acted upon.

Act Phase: After analysis, system modifications are required to sustain innovation. This PDSA cycle was only done once in this study because we examined the system once after Phases I and II ended. As a result of performing PDSA, teacher educators were not complacent in letting problems discovered in Phases I and II continue into Phase III. The separation of the 'plan' and 'do' stages emphasises this point. Since Phase III is still underway, any observations made will help stakeholders further examine how to continuously enhance the system.

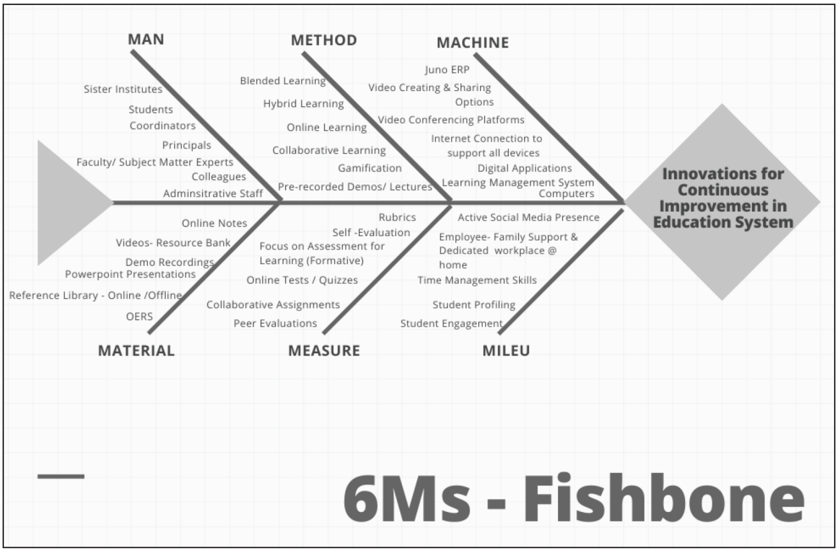

Figure 7. Fishbone diagram for Defining Main Causes for Innovation in the Teacher-Training Institution.

Source: Based on Inputs from Brainstorming Session.

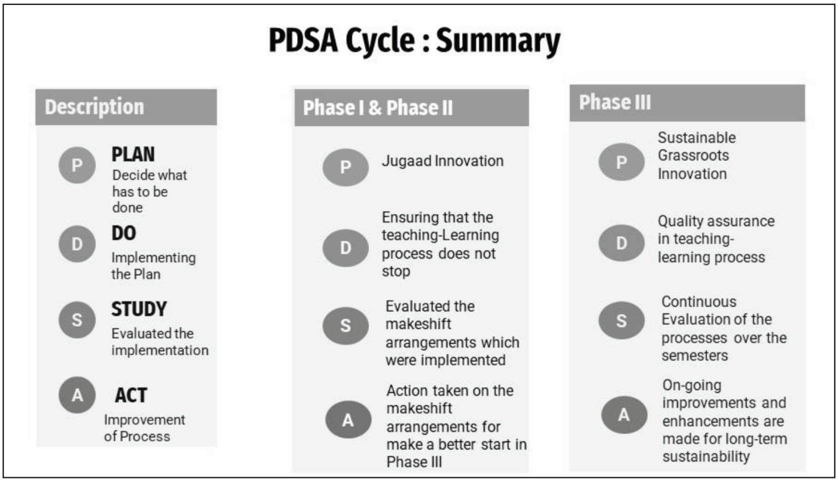

Figure 8. PDSA Cycle Based on Teacher-Training Institution.

Source: Based on Inputs from Brainstorming Session.

The PDSA cycle can be repeated to reassess and evaluate the system. The highlights of the discussions in the above sections following the PDSA cycle model have been summarised in Figure 8.

Heads of the Educational Institutions—Future Employers

To keep the school running smoothly, they would have to adapt. They had to ensure that with the support of their professors and administrative staff, they could handle the obstacles that they faced. Their answers revealed how they played a vital role in handling the system's mandatory adjustments. They became change managers and had to handle change in every situation. It was inconceivable to see schools closing for the entire lockdown. Adaptive adjustments were required to improve the system's long-term sustainability. While they expected educators recruited in Phase II to be resilient and receptive to change, they expected much more in Phase III. To create equitable environments for teaching and learning, post-pandemic teachers would need to learn how to use technology, not only for education but also for evaluation. They would need to be critical thinkers and problem solvers.

Conceptual Model for the Future

Based on the system evaluation in the previous part, we created a model for future sustainable innovation. Reacting to crises with many stakeholders in mind (Harvard Business School Press, 2009). Change management is a major responsibility of leadership. The disruptive developments must be viewed as an opportunity for the organisation to succeed. To change organisations and individuals, especially when change is resisted, we must modify our thinking (Harvard Business School Press, 2007). The COVID-19 pandemic is the most recent crisis. During this time period, many industries were affected, whether manufacturing or service. The educational sector was also damaged in multiple ways. The sector has been completely restructured to meet the demands of the new normal.

In a crisis, leaders can use four primary behaviours to help them handle the issue (Harvard Business School Press, 2020). Previously, organisations focused on expansion, but today they focus on sustainability. In an educational institution, growth was measured in terms of admissions. The pandemic has posed the question of whether growth is enough for organisations. During the pandemic, priorities shifted. They had to prioritise survival and function before considering development and expansion. Leaders must be able to make quick decisions, adapt to changes and continually assessing the system to understand the impact on the system and its stakeholders. Considering the role of leadership in crisis situations, we believe comparable considerations should be made in educational institutions. The institution's response to a crisis is heavily reliant on the leadership's actions. The system would flourish and be sustainable with a top-down strategy and dedicated personnel in the company.

On the other hand, a strong educational institution should withstand future uncertainty. To construct a conceptual model that would lead institutions in the future in building sustainable solutions, we used lengthy debates and deliberations throughout the article. Interviews and brainstorming sessions helped us understand how various stakeholders handled the issue.

Challenges that Exist in the System

There are always challenges, and there are always two ways to look at the challenge. Either one can keep counting the negative aspects of the challenge in front of us or consider the opportunity that might have been created out of the challenge. Here the challenge was the pandemic and the related crisis situation. Many institutions were not able to change at the speed at which was required and perished. Under the case consideration with the vision and mission of the Dean and the team effort, the educational institution moved from initial 'jugaad' innovation to modifying the system towards sustainable innovation through grassroots innovation (Smirnov, 2017). Figure 9 challenges of the system are highlighted.

In the highlights that follow, we have stated how the teacher-training institution stakeholders have collectively stated the changes in the teaching-learning process in the future.

Means to Overcome the Challenges

i. Student profiling: Student profiling detects not just learning styles and student interests but also readiness for learning (Nowakowska et al., 2020; Xu & Pimtong, 2021).
ii. Effective use of technology – hybrid style of teaching: To deliver, teachers needed to upskill themselves in order to use technology effectively quickly.

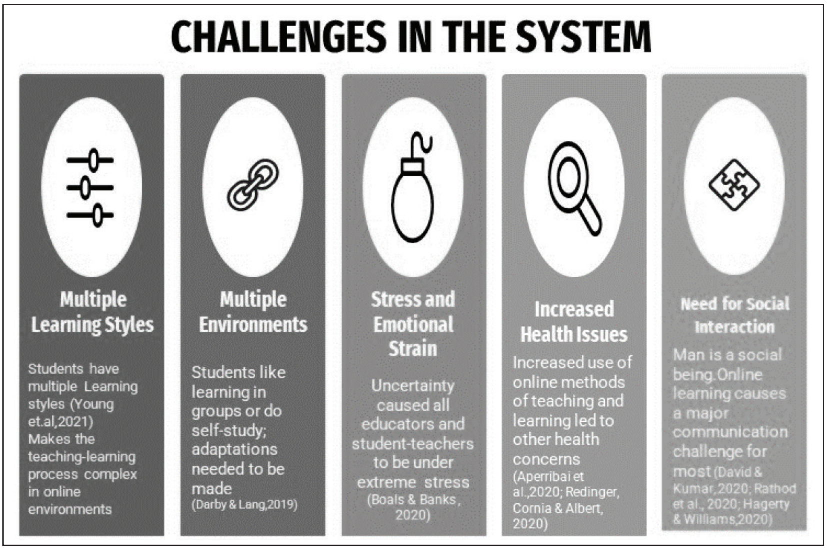

Figure 9. Challenges in the System

Source: Inputs from brainstorming session.

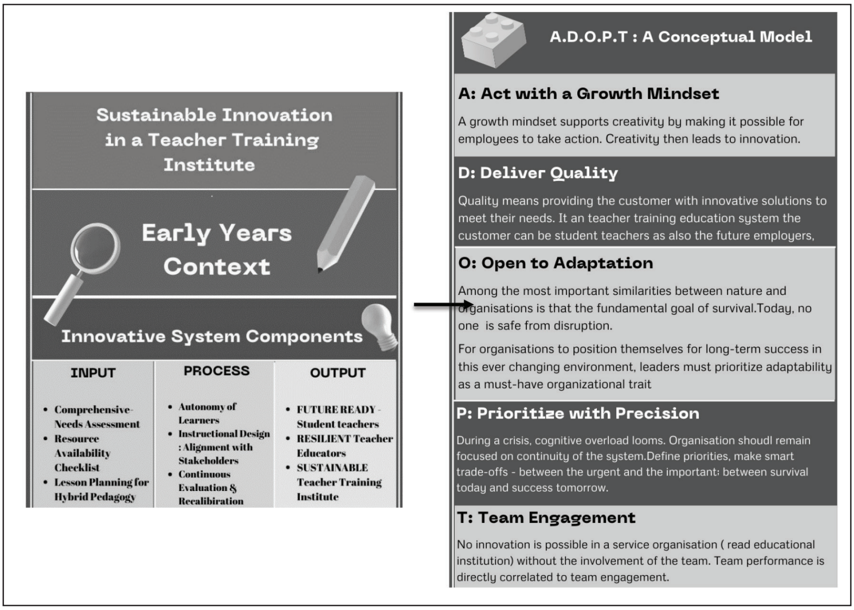

Figure 10. Proposed A.D.O.P.T Model for the Sustainable Education System

Source: Based on the evaluation of the case of a teacher-training institution.

During the pandemic and thorough talks, it became clear that some parts of the online mode of teaching and learning are beneficial to incorporate the long-term, whereas others are fine in the offline form. So, a hybrid approach to teaching and learning is a wonderful idea. For the educational system to survive, administrative modalities and standard operating procedures must be established (Nancy et al., 2020).

iii. Instructional design: Creating resources and learning experiences that help students apply information and skills. The educational design aims to make instructions efficient, engage learners, and address learning objectives in cognitive, emotional, and psychomotor domains (Boettcher & Conrad, 2021).

iv. Classroom discussion based on application-based learing: The times are changing, and students' readiness for the workplace is questioned. The pandemic has made this topic more urgent. When considering the education system as a whole, it becomes clear that some old approaches will be obsolete in the future. Less rote learning and more application-based learning are required. Rather than restricting student-teachers use of technology, teacher educators must support application-based learning fueled by technology (Boettcher & Conrad, 2021; Darby & Lang, 2019).

v. Project-based learning: Due to the pandemic, we now know that pupils must be able to complete specific tasks independently with minimal coaching. This is vital since on-the-job teachers cannot answer questions. They must be able to assess and act swiftly and accurately. During the epidemic, there were no physical meetings with teachers, and while there were online meetings, there were always periods where students had to judge for themselves and act. Rather than being viewed negatively, this component must be viewed positively to ensure that student-teachers are market-ready (Yakur et al., 2020).

vi. Student engagement: Among the many differences between online and offline teaching, one was found to be student participation. This element required teachers to innovate their classroom activities and methodology. They incorporated group-based activities in break-out rooms to promote student engagement and involvement in learning (Budhai, 2021; Sun, 2020).

vii. Self-reliance: Involvement in the learning process is also expected of student-teachers in teacher-training institutes. In an entirely online or hybrid setting, students must be focused on their studies and not easily distracted (Basri, 2023).

viii. Equity in assessment: As an educational institution, you must accept that online and then hybrid teaching-learning will transform the assessment process. Also, various pupils have different learning methods. Thus, the goal is to produce material and assessment using.

ix. Universal design of learning principles: Multiple ways of involvement, representation, action, and expression are among the principles. Thus, ensuring fairness in grading (Feldman, 2018).

Given the challenges that existed at the beginning of the pandemic, it became essential for any organisation to react to survive. If the organisations did not react and act quickly, they would not survive in the future. To not perish, even the educational institution and its stakeholders responded actively. The process is not yet complete; the pandemic gave it a push and impetus. Keeping in mind the details through the case, Figure 6 suggests a comprehensive model of an educational institute for the future incorporating changes required for crisis management. We propose the A.D.O.P.T. model for sustainable innovation for educational institutions which has been given in Figure 10.

Conclusion and Future Scope

In this article, we studied the teacher-training institute as a case. It was observed how the entire set of stakeholders in that system ensured that changes occurred in the system for future sustainable functioning. They moved from 'jugaad' innovation under a crisis to grassroots innovation (pragmatic definition as discussed earlier) to finally reaching a set of solutions for sustainable innovation. The conceptual model by the acronym A.D.O.P.T. is a collation of the details for the change in the educational system based on the research in literature over time and the enhanced motivation due to the pandemic.

The limitations of the current study are that it has been considered only for one institute. Further, the brainstorming sessions have only been conducted once and not over a period, which could have shown how the implementation of the theoretical model into the system has practical implications. In this study, the brainstorming sessions only considered facilitator evaluation and did not take into consideration that of the other stakeholders. The limitations of the current study will help carve the road for future research. In the future, multiple institutes can be considered to understand how different institutions implement the changes in technology in their educational systems.

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Notes

1. Ashton and Green (1996) stated that a major investment in education is required to achieve high level of skills and training. There needs to be (a) Government commitment, (b) employers must be available, (c) adequate control system, (d) good incentives to achieve new qualifications and (e) education system available to provide both on the job and off the job training.
2. https://ies.ed.gov/ncee/edlabs/regions/northeast/pdf/REL_2021014.pdf

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Article

Fintechs Reshaping the Financial Ecology: The Growing Trends and Regulatory Framework

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Abstract

The concept of financial ecology encompasses the intricate interplay of financial systems, institutions, and technologies within the economic ecosystem. It emphasizes the symbiotic relationships and dependencies that shape the modern financial world. Development of Fintech has the potential to significantly enhance and reshape the dynamics of the financial ecology, introducing new players and altering established relationships within the ecosystem. In today's digital realm, the financial landscape has gained significant steam in its adoption of technology tools to dispense its services. The 'internet economy' is relied upon to produce new market development opportunities and occupations and become the greatest business opportunity for organisations in the future. India has come up significantly in the global discussion on financial technologies over the last two decades. Through a systematic review of the literature on this area, this article identifies that the regulatory framework requires provisions to support greater fintech inclusion. Moreover, several issues still lie deficiently addressed, such as user privacy and cybersecurity. This article attempts to review the opportunities, scope and risks for the implementation of financial innovation in India.

Keywords

Digitisation, fintech laws, financial inclusion, financial technology

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Introduction

In the ever-evolving landscape of modern finance, the concept of financial ecology emerges as a crucial framework that underscores the intricate interplay of financial systems, institutions, and cutting-edge technologies within the economic ecosystem. As we delve deeper into this evolving financial ecosystem, one can recognize the pivotal role that Fintech, or financial technology, plays. Fintech has the potential to bring about substantial transformations in the dynamics of the financial ecology. In this paper, we will explore the pivotal role of financial ecology, and the transformative potential of Fintech within this ecosystem. Sensational improvements in the field of the digital revolution are taking off at a dramatic speed. The vast majority of the enterprises, including the banking and monetary service areas, have been impacted in one way or the other (Rajagopal, 2022). The onset of new innovation ordinarily prompts development in the business and is quite often embraced to make errands simpler and more proficient, and this applies to the financial sector also.

'Fintech' can be said to deal with technologically improved applications, processes, products and services of the financial industries ranging from digital currencies to regulatory technology (Walden, 2020). The term encompasses a rapidly growing industry with EY's 2017 Financial Adoption Index revealing that at least a third of the consumers in the financial industry utilise a minimum of two or more fintech services in their daily life (Gulamhuseinwala et al., 2017). Most fintech companies are start-ups and share some common characteristics with each other. They are designed in a manner to eventually usurp traditional financial establishments by either being user-friendly or targeting a segment that has been underserved by traditional financial institutions. These start-ups can take multiple forms such as that of Tala, a London-based fintech company, whose customer base is centred around developing nations. It offers microloans with better options than banks to small businesses in these countries (Kagan, 2020). Some like Upstarts, on the other hand, use far varied and comprehensive data sets to determine someone's credit score which allows them to offer better loans to their consumers than a traditional bank (Kagan, 2020).

The availability of free and cheap internet in India has led to a huge increase in internet usage while also increasing the number of internet users in the country. This had the side effect of having contributed to the expansion of the fintech market in the country. Almost 2,100 fintech entities were established in the last five years (Kapur, 2021). In the quarter ending June 2020, fintech investments worth US$ 647.5 million were signed. In contrast, both the United States and China, the two countries with a larger number of fintech companies, registered significantly lower investments. Fintech companies are expected to reach a valuation of US$ 150–160 billion by 2025, making India the biggest market (Kapur, 2021). Enablers like 'Jan Dhan', 'Aadhaar', and the demonetisation have made favourable conditions for the enormous scope reception of digital payment frameworks in India. The new-age innovations are assisting the economy with accomplishing the ideal outcome by offering some benefit-added administrations at an affordable expense.

Fintech Operations in India

Regardless of the sustainable development and enormous capabilities of a country like India in the economy, issues such as digital poverty, absence of infrastructure, lack of education and low-skill advancement have posed huge difficulties in the development of the rural region. The government authority, just like the private players, has taken various drives to energise the already under-banked and digitally backward populaces to take on a digitalised method of finance; however, issues survive from the last-mile network of banks and torpid accounts. As digital strengthening of the rural population is imperative to overcome any barrier among urban and rural India, some genuine endeavours should be made. Monetary incorporations in India are facing some unorthodox difficulties. These include an absence of strong digital infrastructure, an absence of trust and confidence in digitalised payments, also a deficiency of affordable and reliable web network choices. A few drives and arrangements have been dispatched by the government authority to work with digital empowerment, particularly for the rural population. The main initiative is the Prime Minister's 'Digital India' programme which was launched on 1 July 2015. The one-of-its-kind campaign envisioned numerous new drives to guarantee that all government organisation services should reach all individuals in the country over the internet. Another drive, the Bharat Net Project, intends to upgrade e-banking, e-administration, internet providers and e-education to the villages in India. The government means to carefully enable and associate each one of the Gram Panchayats and establish 100 Mbps networks. Furthermore, Pradhan Mantri Jan Dhyan Yojana additionally adds to the financial and digital consideration of provincial India by working with online exchanges through RuPay check cards. Understanding the way that rural India holds huge significance in accomplishing the digital development of the country, fintech organisations are progressively taking drives to make digital services open for the nation. For instance, the staggering drives by the public authority just as fintech organisations have taken India from a cash-driven country in the pre-demonetisation time frame to a digitally indulged nation where the digital method of payment is more well known than any time in recent memory. These organisations are continually putting forth genuine attempts to distribute Kiosks, PoS gadgets and mobile vans across rural India to carefully reduce repeating charges (mobile bills, electricity charges, DTH and water bills) from far-off villages. The payments are worked with through UPI, net banking, mobile banking, cards and even cash. These fintech organisations follow a completely secured blockchain-based payment passage. Further, generous ventures are being made in need-based items, financial proficiency just as in social and physical foundation. Making credit payments more adaptable and drawing in masses that utilise informal sources of credit are the top-most needs of these fintech organisations. These drives supplement in crossing over the digital gap in the country.

Additionally, a few government bodies such as the National Bank for Agriculture and Rural Development likewise offer varied finance-related facilities to various districts and villages. These incorporate direct finance, long-term loans, etc., for the financial inclusion of all corners of India. Dispensing with various layers of administration and better participatory roles by benefactors are likewise a portion of the drives that are assisting with building a superior conveyance framework in rural India. Directing risk management assessments, investing in audit studies and diminishing the danger of agent misconduct are a portion of the famous and powerful methodologies that the public authority is taking on.

Opportunities for a Fintech Future

In this era of fast-paced technological evolution, financial technology has emerged as the next step of technology integration in economies across the world. Extant research existing in the Indian economic landscape points to a certain potential in the fintech market. Valued at $31 billion in 2021 (Ishwari, 2022), it is expected to see a market valuation of $150 billion by 2025 (India, 2022). In this landscape, the key players are the newly emerging fintech start-ups and Unicorns (India, 2022), the traditional banks, bigtechs (Harasim, 2021), which is a new term to signify technology companies venturing into the fintech landscape—Apple Pay, Amazon Pay and lastly the Regulatory body which in itself is a player in the case of India (Venkatachalam, 2020). The opportunities that will be briefly touched upon are financial inclusion, artificial intelligence (AI) integration and a potential integration sector.

Opportunities for Financial Inclusion Growth

In recent years, with an increase in government emphasis on digital adoption, there have been a slew of reforms that have resulted in a significant increase in the banked population of India. Financial inclusion goes beyond the mere opening of

Table 1. India's Digital Lending.

Year	In US$ Billion
2012	9
2013	14
2014	23
2015	33
2016	46
2017	58
2018	75
2019	110
2020	150
2021	200
2022	270
2023	350

Source: Fintech Convergence Council & Ernst & Young LLP (2021).

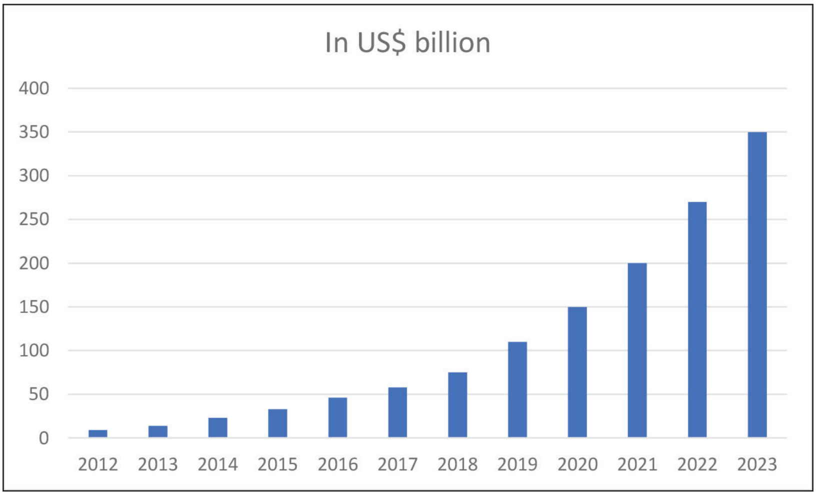

Figure 1. India's Digital Lending Scaled.

Source: Table 1.

accounts, in addition to that it must ensure that customers also utilise these accounts. Several studies have proven with empirical evidence that financial inclusion has a significant impact on the economic variables of a country (Barik & Sharma, 2019). In another parameter, i.e., the supply side of the fintech ecosystem (Kam Loon Loo, 2019), 'Ease of Doing Business' is a vital aspect that needs to be considered. This is a positive aspect for the Indian market as it has been presenting itself in recent years as a fertile ground for new business through the various government policies (see DPIIT, 2021). This presents unique opportunities for fintech to overcome certain issues such as high transaction costs (Barik & Sharma, 2019) and lack of credit information on borrowers for loan grants. According to data collected by Experian, India's Digital Lending is set to scale to $350 billion by 2023 (see Table 1 and Figure 1) (Fintech Convergence Council & Ernst & Young LLP, 2021).

With respect to high transaction costs, the traditional banks have an untapped market potential, which once penetrated through via active collaboration with emerging fintech companies and integration with the UPI infrastructure, will help to augment financial inclusion. Since these traditional banks are age-old institutions with several branches even in remote areas, they have the potential to carry forward fintech adoption. With the emergence of AI integration with fintech, several companies now use the extant data available on users for credit scoring (Ashta & Herrmann, 2021) which is an addition to governmental policies of identity creation through Aadhar. India's mobile penetration is set to reach 96% by 2040 (Keelery, 2021); this is a rather positive figure however; it must be weighed in accordance with the prevalence of financial literacy rates which stand at a meagre 27% as per the survey done by National Centre for Financial Education (FE Bureau, 2020). Therefore, in order to harness these opportunities, steps must be actively taken by all the players in the ecosystem to improve the infrastructure and financial literacy of the untapped markets, especially in rural areas. By steps, it could be both collaboration as well as competition in the sense that active collaboration between the traditional institutions and emerging institutions could interchange resources and technology as well as harness the vast customer base. By way of a healthy competitive environment, traditional systems will be required, almost incentivised, to continuously adopt new technologies and integrate it within their systems whereas the newer companies will have to aim to penetrate deeper into consumer markets.

Opportunities Within an Emerging Sector: Green Finance

With increased awareness and emphasis on sustainability and green initiatives, several organisations as well as policies at the governmental level have shifted focus towards the implementation of sustainable practices. The Paris Agreement of 2015 which aims to maintain global temperatures below 2º Celsius requires intense investments levelling to about \$5–\$6 trillion annually as predicted by the United Nations Conference on Trade and Development. Going forward, with a focus primarily on the financial perspective of ensuring sustainable practices, fintech provides vast opportunities. As early as 2016, the United Nations Environment Programme has even identified several key areas where financial technology can be harnessed in achieving sustainable goals such as peer-to-peer renewable energy, green bonds, energy sectors, pay-as-you-go resource utilities etcetera. Implementation of blockchain technology in a decentralised peer-to-peer energy system can be created wherein there is a direct transaction between the supplier and utiliser of energy. This system can then go on to develop systems of carbon taxation. Development of carbon trading markets based on blockchain technology (Marke, 2018) and harnessing blockchain enabled bottom-level green financing through crowdfunding and crowdlending due to its potential for low regulatory costs, especially from private players, are some opportunities of integrating fintech with sustainable policies for the future (Marke & Sylvester, 2018). Lastly, we touch upon green bonds. The Union Budget 2022–2023 mentioned for the first time in a positive move, the issue of sovereign 'green bonds' in a step towards carbon neutrality to mobilise green infrastructure (The Hindu, 2022). According to Moody's ESG Solutions, sustainable bond volumes in 2022 are expected to hit \$1.35 trillion (Segal, 2022). It is in this hopeful environment that fintech proves to be opportune in its utilisation of faster and efficient transaction processes. Extensive research must be engaged by policymakers in order to keep up with this quickly developing technology. This will enable harnessing of the maximum potential of fintech which will simultaneously aid in achieving our environmental goals.

In the last few years financial technologies have evolved from simple ATM systems, credit cards mobile banking, UPI infrastructure to more recent developments of fintech such as blockchain, cryptocurrencies and digital assets. Technological evolution is only set to continuously evolve and change. In this changing landscape, the players in the ecosystem must adapt and have adequate foresight into potential emerging sector integrations such as green financing. Managerial practices of hiring must be kept in mind to retain and hire employees who show resilience in the face of excess adaptation. However, it's not just adaptation to new technologies but also to regulation and policy changes which will emerge as a consequence of these disruptive technologies.

Fintech In India: The Legal Analysis

To understand the legal framework surrounding fintech in India, we need to talk about the general view which the state, judiciary and relevant entities have regarding the aforementioned topic.

Prepaid Payment Interface

The principal legislation we have regarding fintech in India is the Payment and Settlement Systems Act, 2007. It basically provides a framework for payment mechanisms in India and is what effectively governs all smart card operations and wallet systems. Wallet systems in particular come under the Master Direction released by the RBI in 2017 (Reserve Bank of India, 2017). Initially, the interoperability between wallets and banks was quite low perhaps due to the potential threat wallets pose to the market cap of the banks. State Bank of India even barred users from depositing money into Paytm (Dubey & Bhandari, 2018); however, this was reversed, and as of 2021 State Bank even entered into a partnership with Paytm (Business Today Desk, 2021). The Master Direction was updated in 2021 to change the specification of payment systems from three categories to two in order to increase the interoperability between different prepaid payment interface (PPI) entities. The new system allows PPIs to allow a transaction of up to 10,000 INR without requiring full KYC. This reduces the amount of hassle a customer has to go through and, hence, would increase penetration into rural areas as there is a general lack of resource to facilitate KYC verification over there. However, certain issues are prevalent even now, namely, the fact that the latest guidelines require conversion into KYC PPIs within 24 months from the date of issue. The structural problems in the nation such as access to KYC centres or lack of technological literacy in rural areas still exist, unless these problems can be fixed the time limit would act as a huge barrier. However, relaxing the KYC requirements would at the same time increase the cyber security risk which goes against the government mandate as demonstrated by the requirement of two-factor authentication for PPIs (Reserve Bank of India, 2017). Another particular barrier that exists is the net worth requirement for the establishment of a PPI by non-bank actors which is currently 15 crore INR. This while a barrier to entry for smaller entities can also be seen as a way for the bank to incentivise only 'serious players' to enter into this field, hence ensuring long-term growth and stability (Reserve Bank of India, 2017).

Universal Payment Interface: Differential Treatment

In this section, we analyse two orders coming from the Competition Commission of India (CCI). The first order involved Google Pay, the UPI application launched by Alphabet Inc. The contention is mainly that Google requires all manufacturers that use the Android operating system to pre-install Google Pay before they ship the phone (Order under Section 26(1) of the Competition Act, 2002, 2020). CCI claims this to be anti-competitive in nature and has decided to launch an investigation into the matter.

At the same time, however, in the case involving WhatsApp Pay the CCI has an opposite view point. The contention, in this case, was that WhatsApp bundles its UPI application with its messaging service which is extremely dominant in the nation. The CCI observed that since users are not barred from downloading other UPI apps, it is not anti-competition in any form (Harshita Chawla vs WhatsApp Inc. And Others, 2020).

The CCI had affectively very different stances on similar situation without much justification given. In order to make sure the fintech industry grows a standard must be followed. Before the cases mentioned above the NPCI did release guidelines which capped the market share for a third-party app provider (TPAP) in UPI to 30% (Rai, 2020). Adherence to this policy and creation of strict guidelines for TPAPs would be beneficial since it would create uniformity.

Cryptocurrency: A Legal Conundrum

The story of cryptocurrencies in India has been an unconventional one. It was initially declared to not be a legal tender by a circular released by the RBI (Qureshi, 2022). However, after the history of legal trouble including PILs, proposed blanket ban bills and circulars, the legal status of cryptocurrencies in India is still in flux. Currently, there is no ban on cryptocurrencies in India. Simultaneously there is also no regulation that exists for it. There is currently a draft bill that is pending in the parliament which aims to 'create a facilitative framework for the creation of the official digital currency to be issued by the Reserve Bank of India'. The Cryptocurrency and Regulation of Official Digital Currency Bill, 2021, also intends to prohibit all private cryptocurrencies in India with certain exceptions.

Now there are certain potential problems in this scenario. A bill that ensures regulation is a good step forward since it would clear the air of uncertainty and bring forth some level of uniformity. However, the issue here is the provision about banning all private cryptocurrencies. Now once the text of the Bill is released there will be a bit more clarity. Banning private cryptocurrencies goes against the very concept of digital decentralised tender. Cryptocurrencies are meant to be a sort of framework which do not require a centralised authority (Joo et al., 2020). If private cryptocurrencies are banned and the government ones are instituted then this philosophy would not exist. A lack of a centralised authority is integral to blockchain networks as it allows anonymity to exist. Considering the ambiguity of the legal situation in India about cryptocurrency, the government should consider getting the Bill passed expediently.

Conclusion

In the last decade, finance technology (fintech) has proven itself as a long-time growing emerging market with great potential in terms of corporate and private sector development hand in hand with social economic development. With regard to India more specifically, through major governmental backing of a digital future for India as well as the active growth of startups, the ecosystem for fintech adoption has proved to be only on an upward trajectory in the future. Due to these factors, traditional finance institutions have also been incentivised to adopt new technologies. Financial inclusion is a key aspect in the economic development of a country as several studies have proven and this can be harnessed by way of fintech adoption. We have a long way to go in filling gaps within different sectors in the Indian economy; however, rather than seeing this as a hindrance to fintech penetration, it should be seen as a potential market to harness fintech growth.

With an increase in new innovations in society, regulations also increase in order to bear out the risks which ensue. Cyber security and privacy issues, as several studies have shown, have proven to be hindrances to the adoption of fintech. Further with a rise in new fintech innovations such as cryptocurrencies, market regulations are also necessary so as to provide an equal playing ground. Institutions of fintech must be resilient in the face of this growing and ever-changing ecosystem. With all this in mind, innovation for the entire country will only show its most effect when financial literacy and awareness increase among the masses. Thus, in addition to the steps to be taken by all the players in the landscape, a parallel and equally important weightage must be given to fill financial education gaps in India so as to harness all the opportunities fintech has to offer.

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Does Risk Return Trade-off Hold in Base Metal and Bullion Commodity Assets? A Bayesian Change Point Analysis

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Abstract

The risk-return trade-off is fundamental to portfolio investing whose stability is critical for portfolio optimisation. Since the relationship is dynamic, the portfolio manager should know the point of change and, thereafter duration of the changed period with certainty. First, we have done Bayesian change point analysis, and then based on the analysis, the study identifies the regimes having equal statistical variance along with the corresponding average return in two most popular commodities, that is, copper and gold. It is found that risk-return trade-off is not stable. Further, in a higher volatility regime, only gold can be considered as a diversifiable commodity because a positive risk-return trade-off holds. But in a low volatility regime, both commodities lose their diversification properties as the risk-return relation becomes negative.

Keywords

Risk return trade-off, commodity futures, Bayesian Change point, portfolio investing

Introduction

In the financial crisis, equities markets lose their diversification properties because they become highly correlated. Further, because of low and negative relationships of commodities market with equity, investors diversify their portfolio to commodities.

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However, to get the benefits of diversification, the risk-return trade-off should hold and it should be steady. We study the stability and trade-off of risk and return for the two most popular diversifiable commodity assets such as gold and copper, so that portfolio optimisation could be achieved by including both the assets into the portfolio.

Theoretically, Risk and Return trade-off properties are inconclusive Rossi and Timmermann (2010). Also, empirical findings are inconclusive.[1] The conflicting results could be attributed to the omitted variable bias. Models suffer from omitted variable bias as it has been seen that the trade-off is affected by not only local and regional factors but also by global factors, Aslanidis et al. (2016), investment opportunities, Scruggs (1998) and Guo and Whitelaw (2006), consumption-wealth ratio, Lettau and Ludvigson (2001), lagged mean and volatility, Lettau and Ludvigson (2010), to mention a few.

Further, because of non-linearity and existence of jumps in time series, linear models are suffering from specification error in risk-return trade-off studies. Again non-linear studies on risk-return trade-off using a regime switch or time-varying framework suffer from restrictive assumptions about the data-generating process (i.e., no of regimes) (Thies & Molnar, 2018).

We have applied Bayesian change point detection, see Ruggieri and Antonellis (2016), allied to a novel variability regime selection to investigate whether commodity[2] returns are risk-adjusted through which we are taking care of omitted variable bias, the non-linearity without any restrictive assumptions about data generating process and the asymmetric dynamics as well by constructing regimes with similar risk-return trade-off. We have taken gold from bullion and copper from base metal segment because it has been seen during crisis that base metal and bullion commodities share a less or negative relationship with other asset classes.

In the first stage, segments are identified along with their corresponding posterior probability in the distribution of gold and copper return through break-points using Bayesian break-point analysis. The identified breakpoints and segments explain the stability of the risk-return parameters across time. In the second stage, we have investigated whether the risk-return trade-off holds, a notably positive trade-off which is the reflection of the fact that the investors are risk averse who demand more returns for bearing additional risk. We have merged the segments with similar statistical properties identified in the first stage into regimes which reveals the sign and size of the risk-return trade-off. Each regime so established will describe a particular level of volatility with its corresponding size and sign of the return. To the best of our knowledge, our study is the first of its kind to apply Bayesian change point analysis in commodities market from portfolio management prospective.

We find that risk-return trade-off dynamics across commodities markets and across volatility regimes are different. Gold emerges as the safe heaven investing commodity for portfolio diversification during a high volatility regime. However, in a low volatility regime, both copper and gold lose their diversification properties because the risk-return trade-off becomes negative.

The remaining part of the paper is organised as follows. Section 2 explains the data and its descriptive statistics. Section 3 discusses the methodology used in the study. Section 4 presents the empirical analysis and section 5 concludes the paper.

Data

Daily gold (from 10/11/2003 through 30/11/2017) and copper (from 04/06/2004 through 30/11/2017) price data starting from the date of their respective trading have been collected from www.mcxindia.com, the official website Multi Commodity Exchange. The descriptive statistics of the return series measured as log (P_t/P_{t-1}) are presented in Table 1.

The unconditional maximum return, although average return looks same and standard deviation indicates copper as a high-return and high-risk commodity in comparison to gold. But as BDS test results show that both are non-linear, the unconditional risk-return trade-off may not hold across time. Both the return series are stationary as per the KPSS, PP, and Zivot–Andrew breakpoint unit root test. High Kurtosis and negative skewness further characterise both series as leptokurtic and slightly asymmetric.

Methodology

Based on the Ruggieri and Antonellis (2016) Bayesian multiple change-point detection allied with multiple-sample variance tests, a time series Y_t, $N\times 1$ is subdivided into regimes of same variance based on X_t, $N\times m$, that is, the information. Based on the assumption that a structural break occurs at a given date

Table 1. Descriptive Statistics of Daily Gold and Copper Return.

	Gold Return	Copper Return
Mean	0.000	0.000
Median	0.001	0.000
Maximum	0.081	0.151
Minimum	–0.086	–0.125
Std Dev.	0.010	0.017
Skewness	–0.241	–0.031
Kurtosis	9.853	9.457
Jarque–Bera	7349.897	6021.407
Probability	0.000*	0.000*
Observations	3738	3466

Notes: *Significance at 1% level.

Std Dev. is the standard deviation.

where $f(c_k) > \eta$, for some $\eta \in (0,1)$, the posterior probability, $f(c_k)$ is calculated at a specific location for the change point. After the identification of breakpoints, a statistical test is applied to find out whether the variances of each subset of the time series are indistinguishable. Therefore, statistically, each regime is defined as the subsets of equal variance.

The Bayesian approach of Ruggieri and Antonellis (2016) in detecting structural change points is an extension of Ruggieri (2012). The main difference between those methods is that the first can handle new observations without processing the entire series once more. This feature is desired since the Ruggieri (2012) method results in exponential time consuming as the number of observations increases.

Following are the three steps proposed by Ruggieri (2012) in the algorithm for the Bayesian approach to detect change points.

1. Calculation of $f(Y_{i:j}|X)$, that is, the probability density for all the possible substrings of the data, $Y_{i:j}$, with $1 \le i < j \le N$.
2. Let $P_k(Y_{1:j})$ be the density of the data $[Y_1 \ldots Y_j]$ with k change points. For $k > 0$, define

$$P_k(Y_{1:j}) = \sum_{v<j} P_{k-1}(Y_{1:v}) f(Y_{v+1:j}) \text{ for } j = (k+1):N,$$

3. where $P_0(Y_{1:v}) = f(Y_{1:v})$ is calculated by Step 1.
4. Assuming k change points, with location designed by $C = \{c_1, c_2, \ldots, c_k\}$, with a prior`uniformchangepointslocationdistributionon,thatis, $f(c_1, \ldots, c_k \mid K = k) = 1/N_i$, where the possible number of solutions containing k change points is N_k. Then, we have,

$$f(Y_{1:N}) = \sum_{k=0}^{k_{max}} \sum_{c_1,\ldots,c_k} f(Y_{1:N}) \mid K = k, c_1, \ldots, c_k) \times f(K = k, c_1, \ldots, c_k),$$

$$f(K = k \mid Y_{1:N}) = \frac{P_k(Y_{1:N}) f(K = k, c_1, \ldots, c_k)}{f(Y_{1:N})},$$

$$f(c_k \mid c_{k+1}) = \frac{P_{k-1}(Y_{1:v}) f(Y_{v+1:c_{k+1}})}{\sum_{v \in [k-1, c_{k+1})} P_{k-1}(Y_{1:v}) f(Y_{v+1:c_{k+1}})},$$

when $k = 1$, $P_0(Y_{1:v}) = f(Y_{1:v})$ is given by Step 1.

The previous algorithm is altered in Ruggieri and Antonellis (2016) where the values of the first and second steps are stored in two matrices which is used to update the dynamic programming recursion. Thus, we have for a new observation,

$$P_k\left(Y_{1:(t+1)}\right)=\sum_{v<t+1}P_{k-1}\left(Y_{1:v}\right)f\left(Y_{v+1:(t+1)}\right),$$

for $k=1$ to k_{max}. The posterior distribution on the number of change points is now given by,

$$f(K=k\mid Y_{1:(t+1)})=\frac{P_k\left(Y_{1:(t+1)}\right)f\left(K=k,c_1,\ldots,c_k\right)}{f\left(Y_{1:(t+1)}\right)},$$

and for a detected change point, the exact posterior distribution of the location is given by,

$$f(c_k\mid c_{k+1}=t+1)=\frac{P_{k-1}\left(Y_{1:v}\right)f\left(Y_{v+1:(t+1)}\right)}{\sum_{v\in\left[k-1,(t+1)\right)}P_{k-1}\left(Y_{1:v}\right)f\left(Y_{v+1:(t+1)}\right)},$$

where c_k is the location of the kth change point and $c_{k+1}=t+1$ be the newest observation.

Given the posterior distribution of the set of location of change points, the regimes of statistically equal variance is defined using the algorithm as follows:

1. According to the probability of structural break, the initial regime is defined for a threshold probability η, if the change point probability, $f\left(c_k\right)$, is below the threshold value η, the observation is said to be from the previous regime.
2. Initial regimes having same variance is clustered to update the regimes set R by following the procedures mentioned below:
   a For a given probability of rejection α, statistical test is conducted whether the variability of Regime i is identical to the Regime j, $j>i$.
   b If the null hypothesis of equal variance is not rejected, the new Regime i is given by Regime i^* = Regime i $\cup$ Regime j and $R=\left\{\ldots,\text{Regime } i^*,\ldots\right\}$ - Regime j.

Section 4 presents results for Bartlett's equal variances test using $\eta=0.10$, $\alpha=0.05$. Additionally, the gold and copper returns series were standardised with mean and standard deviation zero and one respectively. As far as dependent variable is concerned, date is converted from string to numerical.

Empirical Analysis

The nature of risk-return trade-off is different for both gold and copper. The sign (return) and size (volatility) dynamics are also different. The relationship between return and risk is mixed. The risk-return trade-off is not stable for both commodities over the period of the study.

Jumps in return and volatility clustering in the upper part of Figures 1(a) and 2(a) and its further segmentation based on posterior volatility in the lower part of the figure throws some interesting fact about the change point and corresponding risk-return trade-off in both copper and gold, respectively. The certainty in the timing of the change point can be observed from the posterior probability graph, see Figures 1(b) and 2(b) where the height of these spikes is an indicator of the probability of selecting a change point in time. One thing that stands out is the strong variation in posterior mean and volatility with different lengths of the identified segment. It is an indication of the fact that the transition between segments (i.e., from one point in time to another) is abrupt and continuous lasting after that for a specified period. Strong variation in posterior mean and volatility across segments in both gold and copper is an indication of the fact that the risk-return trade-off is not stable. For example, copper returns sudden change from one regime to another is observed in January 2008 and April 2008 and thenceforth lasts for several months from April 2008 to March 2011. However, gold returns changing regimes do not occur at the same moment as reported for copper returns series, thus showing a different risk-return trade-off structure. An abrupt change point was observed in August 2005 subsequently lasted for a very short period. However, the regime followed by October 2005 and December 2008 lasted for almost two years. To further understand the time series dynamics, we combine the

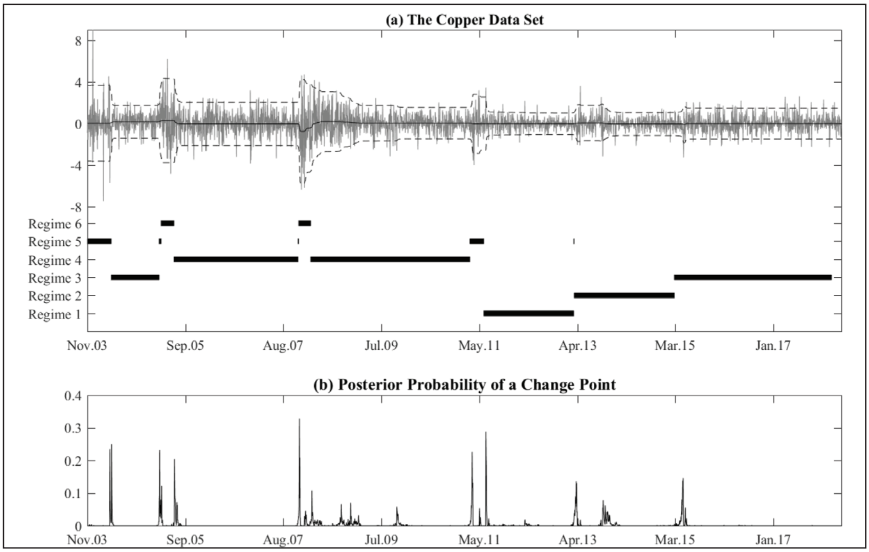

Figure 1. Part (a) Upper Part Shows the Return and Volatility Clustering of Copper with Posterior Mean and Posterior 95%-interval and Lower Part Shows the Regimes Based on Clustering of Independent Segments by their Posterior Volatility. Part (b) Presents the Posterior Probability Associated with Change Points Copper Return. The Height of the Spike Indicates the Probability of Selecting a Change Point at a Specific Point in Time.

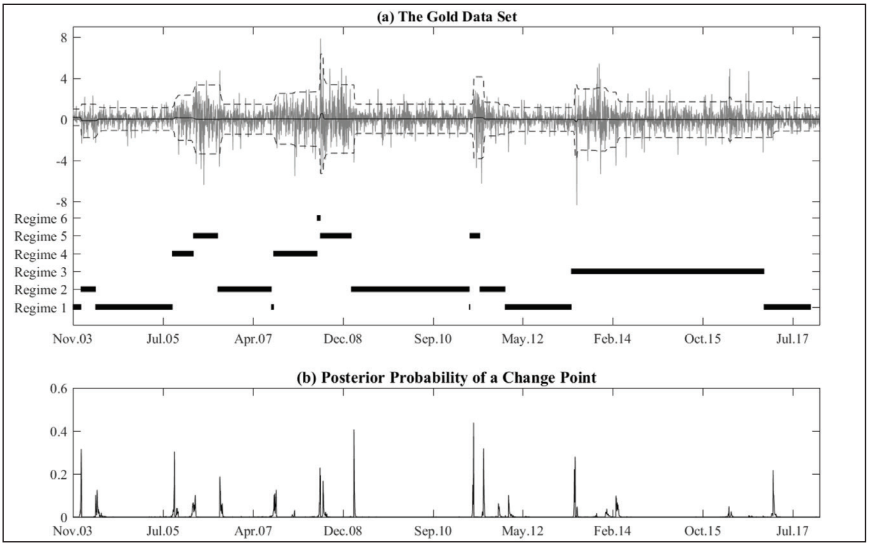

Figure 2. Part (a) Upper Part Shows the Return and Volatility Clustering of Gold with Posterior Mean and Posterior 95%-interval and Lower Part Shows the Regimes Based on Clustering of Independent Segments by their Posterior Volatility. Part (b) Presents the Posterior Probability Associated with Change Points Gold Return. The Height of the Spike Indicates the Probability of Selecting a Change Point at a Specific Point in Time.

Table 2. Regime-wise Mean and Volatility of Copper Return.

Regime	Mean	Volatility	No. of Obs (Days)
1	–0.012	0.306	413
2	–0.026	0.454	460
3	0.023	0.605	945
4	0.022	1.093	1301
5	–0.008	2.792	187
6	–0.278	4.841	114

Table 3. Regime-wise Mean and Volatility of Gold Return.

Regime	Mean	Volatility	No. of Obs (Days)
1	–0.003	0.348	1005
2	0.013	0.59	1057
3	–0.047	1.117	964
4	0.051	1.581	323
5	0.024	3.144	327
6	0.626	7.776	16

segments revealing same statistical properties into regimes that are presented in Tables 2 and 3 for copper and gold returns, respectively. We observe six regimes exhibiting interesting risk-return dynamics, which has implications for portfolio construction. The risk-return trade-off is different for gold and copper returns regarding both sign and size. In case of gold, the positive risk-return trade-off holds in higher volatility regime starting from regime four with a mean return of 0.051 and volatility of 1.581 to regime six with a mean return of 0.626 and volatility of 7.776, despite holding only for a very short period. However, for copper in the higher volatility regime, the risk-return dynamics does not hold where the relationship is negative. So that means the portfolio managers should include gold in their portfolio and disinvest from copper in higher volatility regime. However, in low volatility regime, that is, from regime one through three both copper and gold lose the diversification properties as positive risk-return trade-off does not hold. That means in highly uncertain economic and financial environment only gold can be included in the portfolio to get the diversification benefit.

Conclusion

The stability and trade-off of risk-return are fundamental to portfolio investing and also at the time of crisis commodities are considered as safe heaven investing. Further, both theoretically and empirically the risk-return trade-off relationship is inconclusive. However, since both theoretically and empirically the risk-return trade-off relationship is inconclusive, the portfolio manager should know the point of change, thereafter duration of the change period with certainty. We have applied a Bayesian change point methodology and proposed a novel variability regime selection to two most popular commodities copper and gold which are typically considered as portfolio diversification because of their low or negative relationship with other financial assets. We find that in higher volatility regime only gold can be considered as a diversifiable commodity because positive risk-return trade-off holds. However, in low volatility regime both of the commodities lose their diversification properties as the risk-return relation becomes negative. Thus, the portfolio manager could disinvest in commodity assets like gold and copper in low volatility regime, but she could add gold into the portfolio to reap the benefits of diversification.

Declaration of Conflicting Interests

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Notes

1. Significantly negative conditional relationship Campbell (1987), Nelson (1991) and Brandt and Kang (2004), Positive and significant Ghysels et al. (2005), Ludvigson and Ng

(2007). Positive and mostly insignificant French et al. (1987), Baillie and DeGennaro (1990), Campbell and Hentschel (1992), both positive and negative which depend on methodology being used Harvey (1989) and Glosten et al. (1993).
2. The studies so far are mostly focussed on the equity market and that to US, European and Pacific Basin stock markets.

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Implications of Schumpeter's and Kirzner's Economic Models of Entrepreneurship for Indian Women

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Abstract

The importance of fostering entrepreneurship is inevitable in poverty alleviation programmes because it is the best way to create capabilities. Nurturing women entrepreneurship in a competent outfit will be a way to fight poverty. Schumpeter's and Kirzner's economic models of entrepreneurship show how women's entrepreneurship should be identified, recruited, mentored and encouraged. So, the notion of eradicating poverty through profit in rural India can be by women entrepreneurs taking up radical and incremental innovation and achieving profitability, self-fulfilments and thus the positive economic outcome. Small and medium enterprises (SMEs), which are vehicles in which women entrepreneurship thrives, are very conducive for rural women. The unique qualities and skills which women entrepreneurs introduce into SMEs constitute a real potential source of innovation for economies. To Schumpeter, while the identification and exploitation of this source of opportunities involve radical innovations, Kirzner's incremental innovations are brought to market and exploited by alert entrepreneurs.

Keywords

Schumpeter's and Kirzner's economic models of entrepreneurship, innovation, SME, rural women

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Introduction

The socio-economic and caste survey of 2011 shows the extent and depth of deprivations of rural India. Around 73.4% of families of the whole country are residing in rural areas. Despite the years of planning and unplanned execution of these plans, even the chances of modern employment reaching these families in near future are also a question, as only 3% of these families have at least one graduate. Poverty alleviation programmes and their incapability in creating capabilities for deprived sections are evident in this. Structural disparities are very crucial and severe in this context. The importance of fostering entrepreneurship is inevitable here because it is the best way to create capabilities. The question of why women's entrepreneurship should be promoted can be answered by some realities. Women represent a higher share of the world's poor due to unequal access to economic opportunities in both developed and developing countries (Boudet et al., 2018; Lefton, 2013). Improving the access of women to education and health care as well as economic opportunities can have significant positive outcomes for poverty reduction. Effective anti-poverty strategies need to consider the role of social institutions and culture, particularly in limiting the access of women to employment, inheritance and finance. So nurturing women entrepreneurship in a competent outfit will be a way to fight poverty. Schumpeter's and Kirzner's economic models of entrepreneurship show how women's entrepreneurship should be identified, recruited, mentored and encouraged. So, the notion of eradicating poverty through profit generation in rural India can be through women entrepreneurs taking up radical and incremental innovation and achieving profitability, self-fulfilments and positive economic outcome.

Context

Women Entrepreneurship: Motivations to Potential

Different perceptions of entrepreneurship have been identified by economists throughout the evolution of the subject. Knight (1921) believed that entrepreneurs face uncertainty from the unknown; Alfred Marshall saw an entrepreneur as leader and manager (Karayiannis, 2009); JB Say recognised the entrepreneur as a manager because they play an important role in coordinating the factors of production and distribution (Koolman, 1971). However, most of these economic theories recognise the fact that entrepreneurship contributes significantly to the development of the economy. Schumpeter (1994) argued that the entrepreneur is the one who brings the innovations that create real development in the economy, meaning that without the entrepreneur economic growth will be very slow. Yet despite their centrality, little is known about entrepreneurs: what motivates them, how they emerge, why they succeed. The existing literature on women entrepreneurs is limited, especially regarding their distinct characteristics and motivations (Cohoon et al., 2010). Small and medium enterprises (SMEs), which are vehicles of development in which entrepreneurship thrives, play a key role in triggering and sustaining economic growth and equitable development in developing countries. The exploitation of the potential in the indigenous sectors as an engine for growth, using local resources and appropriate technology which is the nature of SMEs, is seen as an alternative development model to the traditional large-scale intensive 'stages of growth' paradigm in developing economies. In exploring why women entrepreneurs' activities are mostly SME-based, most studies argued that the nature of SMEs is very conducive for women (Kalyani & Kumar, 2011; Singh & Raina, 2013). Women want businesses that they can combine with family life by looking after their children and their household and earning some income at the same time (Sharma, 2013). The unique qualities and skills which women entrepreneurs introduce into SMEs constitute a real potential source of innovation for economies. This article follows a descriptive analysis approach that explains the theoretical underpinning to evolve the framework for entrepreneurship development among Indian women. The rest of the article includes a discussion on the ideas of Joseph Schumpeter and Israel Meir Kirzner followed by implications on women entrepreneurship in India. The final section concludes the discussion with policy perspectives on an end outcome basis.

Discussions

The Economic Perspective of Entrepreneurship: Schumpeter Version

Joseph Schumpeter is the economist who has most prominently drawn attention to the innovating entrepreneur. His major contributions to the theory of entrepreneurship are included in his book *The Theory of Economic Development* (Schumpeter, 1911) first published in 1911. Schumpeter argued that innovation meant doing more with the same number of resources available to anyone. Schumpeter believed entrepreneurship not only meant management of a firm but, more importantly, the leadership of the firm, in contrast to the many imitators who follow the innovative leader of the entrepreneurs. The entrepreneur is therefore responsible for the continuous improvement of the economic system. According to Schumpeter, the economy does not grow like a tree, 'steadily and continuously', but through an individual's creative or innovative responses to opportunities. By necessity or by desire, entrepreneurs create qualitatively new phenomena (Schumpeter & Swedberg, 2014), which is what makes the economy grow. Hence, the primary consequence of Schumpeter's entrepreneurship is the long-running economic development of the capitalist system, and the entrepreneur is the innovator in economic life. Notably, Schumpeterian entrepreneurs are principally regarded to own and direct small independent firms that are innovative and creative.

The Economic Perspective of Entrepreneurship: Kirzner's Version

Israel Meir Kirzner highlighted and summarised the Austrians' (Mises and Hayek) economic views of entrepreneurship in his book *Competition and Entrepreneurship*

(Kirzner, 1973). Kirzner focused on the alertness for profit opportunities as the key to understanding entrepreneurship. According to Hayek and Kirzner, knowledge is unevenly distributed in and among individuals, with the consequence that the market uses resources imperfectly (Ebner, 2005). This mismatch in knowledge and information and gaps that others have not yet perceived and exploited in the market process translate into profit opportunities for those individuals with particular, unique knowledge of market discrepancies. The entrepreneurial role is that of discovering or alertly noticing where discrepancies have occurred in the market process, and of moving to take advantage of such discoveries. According to Kirzner, entrepreneurs are the persons in the economy who are alert to discover and exploit these profit opportunities. The emphasis is thus on the entrepreneurs being the equilibrating forces in the market process by simply noticing profitable opportunities arising from unanticipated, independently caused changes in underlying market circumstances. Another equally important feature of Kirzner's view is that the entrepreneur is a visionary, and possesses entrepreneurial or psychological qualities of boldness, determination, innovation and self-confidence (Kirzner, 1973).

Schumpeter's and Kirzner's Economic Models of Entrepreneurship for Indian Women

Schumpeter and Kirzner share different aspects of the role of the entrepreneur relevant to our notion. The gap between Schumpeter's and Kirzner's views is real and complementary. The two views have explicitly emphasised two distinct and complementary types of identification and exploitation of sources of opportunities in their theories, which is vital in the entrepreneurial process. To Schumpeter, while the identification and exploitation of these sources of opportunities may involve radical innovations, Kirzner's incremental innovations are brought to the market and exploited by alert entrepreneurs. These two means of business ventures create a major component of the entrepreneurial process which will help to understand how women enter self-employment and the types of entrepreneurial activities they should aspire to (Figure 1).

The endurance of women entrepreneurs will be appreciated only if the product or service they launch generates profits, financially empowers them and has a positive impact on the economy. Innovation is the key factor that is proposed by this study, which helps achieve all these three outcomes. Both propositions of innovations explain the characteristics that are presumed to be part of successful innovative entrepreneurs. The women entrepreneurs can create an impactful presence in the market if they can utilise the market discrepancies as Kirzner emphasised (Incremental Innovation) and they should be equipped to launch their innovations as Schumpeter envisaged (Radical Innovation) (Figure 1).

Traditionally, we consider two sets of factors that motivate women entrepreneurship: *push factors* which include economic necessity, lack of childcare facilities, unacceptable working conditions, rigid hours, the wage gap between women and men, occupational segregation; *positive factors* pulling

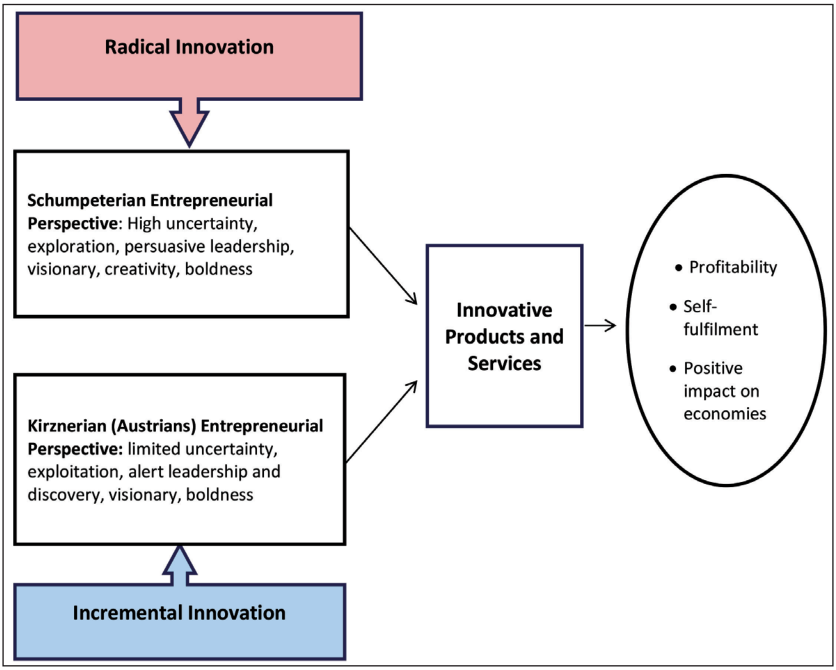

Figure 1. Implications of Schumpeterian and Kirznerian Perspectives on Women Entrepreneurship.

women into entrepreneurship include market opportunity, ambition, experience, an interest in a particular area of activity, social objectives, contacts, a need for flexible hours, greater income and financial independence, a desire for autonomy, personal growth and increased job satisfaction (Cavada et al., 2017; Muthuraman & Al-Haziazi, 2018; Solesvik et al., 2019). In India, women are at an economic disadvantage compared with men in terms of workforce participation and business ownership (WDI, 2021). Societal norms still discount women as the primary breadwinners in the family. Personal motivations such as the desire for autonomy, to control one's destiny and the need to be personally fulfilled are not evenly nurtured in India due to patriarchal constraints (Geetha & Rajani, 2017; Premalatha, 2010). But the working of many self-help groups (SHGs) and their entrepreneurial ventures have substantially proved that entrepreneurship has provided an opportunity for women to discover a newfound sense of accomplishment in supporting themselves instead of relying on men and government welfare systems.

In rural India women, entrepreneurs are concentrated in traditional businesses such as food processing, hospitality and catering (Srivastava & Srivastava, 2010). The keywords such as innovation and alertness have not been given importance here or it is neglected. The current working of SHGs also revolves around the traditional options. Attempts of Kudumbasree and Self Employed Women's Association also give that their entrepreneurial ventures are limited to traditional workers such as housekeeping, food processing to embroidery, *bidi* and *agarbathis*. So traditional activities as SMEs are the common orientation of Indian women where innovation and alertness are neglected. Creativity and explorations with high uncertainty that evolve from innovation are not cultivated in rural India. Despite growth in literacy rate, entrepreneurship training and scientific education are lacking in rural India.

The concentration on small-scale industries (SSI) limits them from radical innovation to an extent, despite the traditional constraints faced by SSI. The idea of innovation should be encouraged in the sense, which can create real growth potential. That may be a new product, a new method of production, the opening of a new market and capture of a new source of supply. But this never happened on large scale in rural India. Government's negligence towards this is evident from the working of the newly sponsored Bharathiya Mahila Bank, which is to support the banking needs of women who want to become entrepreneurs. It has also signed pacts with beauty salons such as Naturals and Cavin Kare's trends in Vogue. The bank offers loans for women in the range of ₹50,000 to ₹5 lakh to open day-care centres. It also gives loans starting from ₹5,000 for catering services. Here, on one side banks escape from dealing high uncertainty from innovation, secondly channelising their efforts to the hands of big players.

In Kirzner's model, alertness and a better understanding of market matters, and entrepreneurial activities build in rural India for women are always without considering this aspect. The problem faced by SSI in general and women entrepreneurs specifically is always the problem of satisfying the market. The problem starts from when they limit their orientation to their local market. Even in the domestic market, lack of alertness results in no gap for them to utilise. So, lack of alertness in a globalised Indian market plus lack of innovation to create own market, shrinks the prospects of women entrepreneurs in rural India.

Conclusion and Policy Perspectives

The discussion on the notion of women entrepreneurship in the knowledge era in this study highlights how important are innovation and alertness, explained under two distinct perspectives. The access to knowledge enables them to design, deploy and use radical innovation, while incremental innovation helps them discover the need of the era. Kudumbasree mission in the state of Kerala in India gave an example in this context. The mission has assignments taken under information technology and information technology-enabled services which helped rural educated women to embrace the service sector growth in the country (Siwal, 2009). Much of the data entry work taken up by Government departments are being outsourced to Kudumbasree units which gave employment to over 2,500 poor women. In 2009–2010, the IT units were taken up mostly with digitising the below poverty line data and ration cards for the State Government Rashtriya Swasthya Bima Yojana, Aam Aadmi Bima Yojana related works.

To conclude, investing in women and girls—in their education, health and access to assets and jobs—will have a multiplier effect on productivity, efficiency and sustained economic growth in developing countries. Here, what is needed is to at least ensure them elementary education which can stimulate innovation in their mind, which should be channelised, and enable them with different sets of competencies. Following Lawal et al. (2018), Tehseen et al. (2020) and Umar et al. (2018), the competencies that are critical for rural women entrepreneurs in the Indian context are:

1. *Conceptual Competency*: involves different conceptual abilities that the entrepreneurs reflect in their behaviours. Such as innovativeness, risk-taking, decision skills, observing and understanding complex information.
2. *Strategic Competency*: related to establishing, evaluating and executing the strategies for the firm.
3. *Opportunity Competency*: refers to the ability to recognise the opportunities in the market through various means.
4. *Learning Competency*: the ability of the entrepreneurs to learn from various ways and means, keep themselves up to date in the relevant field, learn proactively and then apply learned knowledge and skills into practical activities.
5. *Personal Competency*: the ability to motivate self to perform at an optimum level with a high level of energy, ability to respond to criticism and maintain a positive attitude.

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Article

Factors Affecting Customer Satisfaction in Online Grocery Shopping: An Empirical Analysis

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Abstract

In today's era, internet has become one of the most popular platforms to shop online including grocery products. Online grocery shopping (OGS) has been considered relatively new but a promising sector of e-commerce in India. Several scholars have investigated the factors affecting the customer intention to buy grocery products online in different research contexts, however, there is no consensus in the literature on determinants of OGS. This article aims to explore the factors, such as convenience, trust, website design and security, that influence customer satisfaction in OGS. A survey was developed, and collected responses were analysed using confirmatory factor analysis and multiple regression analysis. The findings suggest that one of the major determinants of customer satisfaction while buying groceries online is website user-friendliness and the information provided about the grocery items. Furthermore, convenience and payment security also have a very significant positive impact on customer satisfaction.

Keywords

Online grocery shopping, emerging economies, empirical research

Introduction

Grocery shopping is considered routine buying behaviour not only because decisions are made at regular intervals but also because a customer's behaviour is essentially habitual and automatic. With the rapid growth of the internet and e-commerce, Indian consumers' grocery buying pattern is transitioning from

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traditional methods to online, resulting in the phenomenon known as—online grocery shopping (OGS). Online grocery is the process of ordering groceries online from the comfort of one's own home or having them delivered to one's home or picking them up from a store or a pick-up location. It has grown in popularity as a means of providing consumers with additional information and options for comparing items, costs, ease and the capacity to search for anything on the internet.

OGS is a novel way to acquire your family's preferred supermarket items. The phenomenon has already gained traction in developed countries, and an increasing number of urban and suburban consumers are taking advantage of it for their benefit and convenience. India's markets have begun to respond positively to this occurrence as well. Even though online grocery business in India is a niche market inside the larger food and grocery market, due to the increase in the e-commerce business, increasing urbanisation, changing consumer lifestyles and tech-savvy young population who loves to shop products online, OGS is quickly gaining popularity in the country. Online grocery stores are rapidly displacing physical stores across India, thanks to remarkable growth in the e-commerce business, increased customer awareness, rising disposable income and the introduction of different technological advancements.

The online grocery market has benefited both retailers and customers. Consumers benefit from location, timing and product. Retailers, on the other hand, benefit from constant connectivity with their customers. OGS reduces both physical and mental effort for shoppers, and it is gaining popularity in India as a result of an increasing trend among consumers to shop online.

In recent years, widespread adoption of digital transactions has substantially impacted Indians' purchasing habits, particularly, in metropolitan areas, where 269 million (60%) of the population use internet[1]. Because of the availability and affordability of smartphones, mobile is the primary device for accessing the internet for 77% of urban users and 92% of semi-urban users, according to the same report. As a result, internet retailing offers customers more shopping options and access to products and services than ever before. While the online grocery sector in India is still in its early stages, it is expected to exceed US$ 3.19 billion in sales by 2020, representing a 76% increase over the previous year.[2]

While the statistics show an improvement in internet sales, assessing actual customer behaviour is more difficult. The distinctions between online and offline channels are becoming increasingly blurred[3]. Furthermore, some customers are still hesitant to purchase groceries from internet retailers for many reasons such as lack of trust in online shopping, payment security issues, etc. Sometimes customers also want to go out to meet up with friends/neighbours and take their feedback before buying the grocery products. These factors have a negative impact on the customer's intention to move online to buy grocery items. In addition to this, purchase habits are shifting dramatically as buyers can move effortlessly between offline and online channels. As a result of the internet's substantial influence on consumer preferences and purchasing patterns, consumer behaviour related to online shopping is a topic of interest for both academics and practitioners.

Growth of the Online Grocery Shopping (OGS) Sector

Online grocery sales are expected to expand by 54% to $95.82 billion by 2025 accounting for 12% of all online purchases. According to Singh and Söderlund (2020), from 2021 to 2028, the Indian online grocery market is anticipated to expand at a rate of 37.1% CAGR. The business has achieved significant popularity in recent years due to the change in consumer habits, rapid growth and access to the internet; making it easier for everyone to shop online. During the coronavirus pandemic, the government enacted many rules and regulations to try to combat and manage the virus spread. The most important rule was to stay at home as much as possible and maintain 1.5 meters distance from other people. The laws imposed by the Indian government had a significant impact on individuals as well as businesses. On 24 March 2020, Government of India ordered a nationwide lockdown and like other sectors, hospitality industry was compelled to shut down. Grocery stores cannot be closed since they provide a vital source of food and other necessities for society, however, they must adhere to regulatory standards regarding the coronavirus. Following the spike in COVID-19 cases, there was a surge in demand for online grocery delivery. Consumers were turning to OGS because of the social distancing standards, which are not only convenient but also cost-effective.

However, after certain months, despite the relaxation in social distancing, OGS continued to increase, topping $100 billion in spending for the first time in 2021, a year ahead of previous predictions. Customers' reliance on the internet platform has grown dramatically as a result of safety concerns surrounding the coronavirus and the fact that a large section of the population works from home. The market is likely to grow significantly in the next few years because of initiatives like no-contact delivery and online payment, consumers have been drawn to several online platforms, including Amazon, Big-Basket, Blinkit and others. A brief description of major Indian online grocery retailers is given in Table 1.

The grocery market in India is a speciality market influenced by the wider food and grocery market and is a relatively new setting in India. During the pandemic, online grocery buying has gotten more popularity. In the year 2021, In terms of consumer use of online grocery purchasing methods, India was one of the leading countries.[3] Therefore, the goal of this research is to examine what influences Indian consumers' satisfaction when they use internet for grocery shopping as customer satisfaction is a fundamental building block of repurchase intention.

This study will empirically examine the relationship between different factors, that is, convenience, trust, website design and security that influence customer satisfaction in OGS. To test the proposed hypotheses, the study has collected data from 118 individuals who have experience with OGS. The data analysis is done in the following two stages: In the first stage, confirmatory factor analysis (CFA) is used to verify the reliability and validity of the measurement items. In the second stage, multiple regression analysis is used to test the proposed hypothesis. The key contribution of this paper lies in the amalgamation of four dimensions, that is, convenience, trust, website design and security, in the online grocery context for Indian consumers.

The rest of the study is as follows: in the second section, we have reviewed the existing literature and proposed the relevant hypotheses. The details of the research methodology used is described in the third section. The fourth section summarises the findings of data analysis and the fifth section concludes the discussion and implication of the study. Lastly, limitations and future research directions are provided.

Table 1. Major Online Grocery Companies in India.

Major Online Grocery Companies in India	
Jio-Mart	Jio-Mart, a joint venture between Reliance Retail and Jio Platforms, is India's newest online grocery delivery service. Groceries and daily necessities are delivered to customers' doors from nearby stores via e-commerce websites and mobile apps.
Big Basket	Big Basket is a popular online grocery store, which sells over 1,000 brands and has over 20,000 items in its database. Big Basket has everything customers need, including fresh fruits and veggies, spices, dals and rice, seasoning, packaged goods, personal care products, beverages, meats and more, and a wide range of products in each category. The website provides an anticipated delivery time focusing on cutting-edge, creative retailing at a competitive cost.
Blinkit	'Blinkit, formerly known as gofers'. It's an Indian-based instant delivery service that was created in December 2013. Customers can use a smartphone app to order groceries and other supplies online.
Nature's Basket	Godrej Nature's Basket, a well-known online food retailer, which offers fresh veggies, fruits, and groceries online and through a mobile app, has been bought by Spencer's Retail.
Amazon Pantry	Amazon Pantry is a service that allows customers to shop for groceries online and have them delivered to their door in one delivery like other items.

Literature Review

OGS is a process of making a purchase on the internet that allows consumers to buy commodities and household items, particularly perishables, from the comfort of their own homes. To shop for groceries on the internet, most people use e-commerce websites or smartphone apps. Customers can order goods from businesses' websites by just clicking on the button for the items they want to buy, and groceries are delivered to their houses (Burke, 2005; Kurnia & Chien, 2003; Peterson, 1997).

Grocery shopping online is not as common as buying durable items; as a result, the factors that influence customer satisfaction may differ in this product category (Van Droogenbroeck & Van Hove, 2017). Scholars believe that buying groceries on the internet is motivated by trust, convenience and security (Morganosky & Cude, 2000; Seitz et al., 2017), and consumers place a higher value on the delivery process and product quality when compared to shopping for durable items (Anesbury et al., 2016; Frank & Peschel, 2020). Scholars have used the theory of reasoned action (TRA) to study various contexts of e-commerce, such as apparel shopping (Yoh et al., 2003), eco-friendly products (Prakash & Pathak, 2017), green products (Paul et al., 2016) and OGS (Belleau et al., 2007; Cai & Cude, 2012; Hansen, 2008; Orzan et al., 2013; Rigas & Riaz, 2015; Rodriguez et al., 2017; Yoh et al., 2003).

TRA model proposed by Fishbein and Ajzen (1977) is a generic framework that proposes the relationship between attitude, behavioural intention and actual behaviour of the individuals. Understanding the individual intention is very important specifically in the case where consumers can exercise their control over their behaviour as in the case of buying groceries on the internet (Amaro & Duarte, 2015). Another theoretical framework, TAM (Technology Acceptance Model) has been used by many scholars to explain customer satisfaction or repurchase intentions. In literature, some scholars have used traditional TAM (Bauerová & Klepek, 2017; Hui & Wan, 2009), whereas the most commonly used is extended TAM, which includes the relevant variables with reference to the OGS context, such as security (e.g., Kurnia & Chien, 2003; Wang & Somogyi, 2018), trust (e.g., Childers et al., 2001) and website design (Loketkrawee & Bhatiasevi, 2018; Nguyen et al., 2019) are some of the factors added in extended models to improve the model's explanatory power (Loketkrawee & Bhatiasevi, 2018; Sreeram et al., 2017).

Beyond adoption models, scholars argue that a shopper's beliefs, attitudes and behaviours towards a multichannel retailer's online channel are shaped by his or her perception of the offline channel. Jones and Kim (2010) discovered that a customer's inclination to shop for groceries online is influenced by their offline purchases. According to Frasquet et al. (2017), customer loyalty to multichannel retailers is heavily influenced by the consumer's offline retail store loyalty. All of these studies are centred in the context of online apparel shopping. Nonetheless, these studies demonstrate learnings how grocery multichannel retailers' brand equity affects consumer intention to shop through their online retail stores. Using the TAM model, Khare and Sadachar (2014) described the people's intentions and actual behaviour when it comes to a specific technology. Consumer satisfaction with online grocery buying is positively influenced by convenience and trust in online shopping (Hansen, 2006). Childers et al. (2001) found that online grocery website design and trust are major predictors of OGS usage. According to Park et al. (1996), high-tech baby boomers use home shopping services to simplify their life, and OGS provides one method to boost convenience. Morganosky and Cude (2000) and Raijas and Tuunainen (2001) indicated convenience and time savings as the key reasons for OGS. Furthermore, customer satisfaction with OGS is positively influenced by security (Çelik & Yilmaz, 2011). As a result, the objective of this study is to develop a research model that incorporates new constructs into the TAM theory: trust, convenience, website design and security.

Convenience

Convenience is defined as a reduction in stress or sacrifice caused by a transaction due to a reduction in time and effort (Jiang et al., 2013). Customers' perceptions of a website's user-friendliness, intuitiveness and simplicity during a purchase are referred to as online convenience. This reduces tiredness caused during the product and information search process, reduces error and boosts satisfaction, which leads to repeat purchase intention (Srinivasan et al., 2002; Van Droogenbroeck & Van Hove, 2014). Convenience is important in shaping customer behaviour, and their perceptions of convenience are important in deriving satisfaction (Seiders et al., 2005). Customers' perceptions of saving time and improved convenience are closely linked to their use of the internet for grocery shopping at any time of the day and from anywhere (Jiang et al., 2013; Morganosky & Cude, 2000; Van Droogenbroeck & Van Hove, 2014). Ramus and Nielsen (2005) looked at several factors that influence consumers' decision to purchase groceries online and found convenience to be one of the most influential factors. Therefore, we hypothesise that,

H_1: Convenience has a significant positive impact on customer satisfaction in OGS.

Trust

Trust is found on a set of assumptions that 'individuals behave in a socially acceptable manner toward others' (Constantinides et al., 2010). D'Alessandro et al. (2012) define trust as 'confidence' shown to another party and suggest that while making critical purchasing decisions, trust is a necessity of social behaviour. In electronic commerce, trust gives customer's the confidence and comfort to disclose personal information, follow online vendor recommendations, and make transactions over the internet (Kim et al., 2011). According to the current literature on e-commerce, first-time customers' trust development may be lower than that of recurring customers (Eastlick & Lotz, 2011). Online sellers must demonstrate their honesty, competency and friendliness to clients when serving or connecting with them to gain their trust (McCole et al., 2010). Grabner-Kräuter and Kaluscha (2008) also suggest that establishing trust with new internet customers is critical for long-term success, and this initial trust should be prioritised. Çelik and Yilmaz (2011) also found that customer satisfaction in OGS is influenced by the trust. Citrin et al. (2003) suggest that in an online transaction environment, trust is even more vital, especially when dealing with commodities like food and groceries, and is necessary for an online grocer's success (Toufaily et al., 2013). If trust has been developed, it increases the customer satisfaction with the OGS process, positively affecting the repurchase intention. Therefore, the hypothesis is proposed as follows:

H_2: Trust has a significant positive impact on customer satisfaction in OGS.

Website Design

The grocery retailer's website design plays a significant part in building an online relationship with consumers. It has the capacity to affect the image of the company as well as customer satisfaction, loyalty and repurchase intention (Sanchez-Franco & Rondan-Cataluña, 2010). The image of the company's website becomes more important in online shopping, the process takes place in a virtual environment and it increases the uncertainty and risk (Mostafa et al., 2005). Websites that give the impression of being user-friendly, and easy to search for products and information appeal the consumers more (Kim & Niehm, 2009); therefore, website homepage is crucial in generating that impression (Pandir & Knight, 2006). In online shopping, customers cannot examine or feel things, thus other critical aspects of the website including pictures, graphics, video material, etc., become very important. Additionally, some new features such as 3D photos, zoom functions, suggestions for similar items and substitute items in case of stock out help in establishing and increasing consumer impressions of the website (Kim et al., 2008). Websites that are modern, thorough, innovative, provide detailed information about the products and appealing to the eyes increase the consumer's interest and help in retaining existing ones (Kim et al., 2008). In prior studies, the website design is found to be an important component in enhancing consumer happiness (Pandir & Knight, 2006). The customer's perception of the online store's user-friendliness is used to measure the performance of the online business (Lin, 2007):

H_3: Website design has a significant positive impact on customer satisfaction in OGS.

Security

Security in online shopping context relates to the safeguarding of payment and financial information from unauthorised breaches (Nysveen et al., 2005). The literature suggests that one of the most important aspects of online grocery buying is the security (Khan & Khan, 2020; Lauer & Deng, 2007; Shukla et al., 2014).

Customers' negative sentiments are influenced by internet businesses' incapacity to protect their platforms from attacks or any damages, which they perceive as a risk to financial transactions (Lauer & Deng, 2007; Teoh et al., 2013). Customer satisfaction in online food purchasing is increased with a robust security system on the online grocery website (Khan & Khan, 2020):

H_4: Security has a significant positive impact on customer satisfaction in OGS.

Based on the proposed hypotheses, Figure 1 presents the research framework of the study.

Research Methodology

Sample and Data Collection

This study focuses on a sample of Indian residents. This study's sampling frame was youth, and the convenience sampling technique was used during data collection. This particular sampling technique is known to allow researchers easy access to information from participants, and it is also known to be convenient. The goal was to minimise the researcher's bias in data collection. The survey questionnaire was emailed to the targeted respondents who had some prior experience with OGS. After data screening, a total of 118 usable responses were received for analysis, representing a response rate of approximately 47%.

Survey Design and Measurement Items

To prepare the questionnaire, we followed a two-stage development approach. In the first stage, we thoroughly reviewed the literature for well-tested measurement scales of the proposed constructs with favourable psychometric properties relevant to the context of study. In the second stage, we took the expert recommendation to detect any problem in wording and/or ambiguity in the questions, and based on their recommendations, survey questions were finalised.

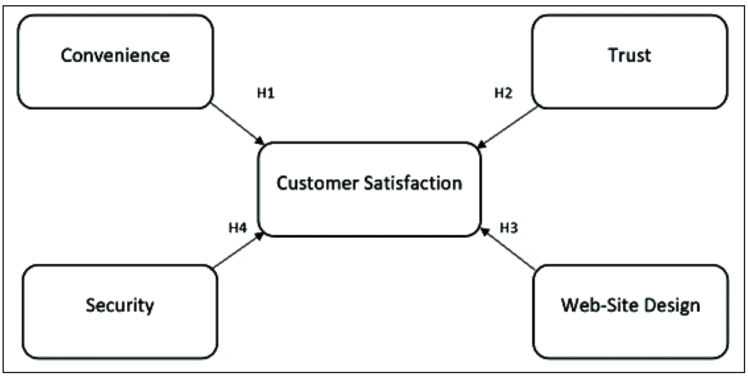

Figure 1. Proposed Research Framework.

Table 2. Construct Items and Relevant References.

Construct Items	References	Factor Loading
Convenience (CO)		
CO1: It is easy to access the website of online grocery store	Khan and Khan (2020)	0.841
CO2: It is easy to search for products on the website of online grocery store		0.832
CO3: It is easy to transact at online grocery websites.		0.820
CO4: Buying groceries online enables me to buy my groceries faster		0.894
Trust (T)		
T1: Grocery shopping on online store website is a trustworthy experience	Mortimer et al. (2016)	0.820
T2: While shopping online I trust stores that are connected with well-known offline stores		0.891
T3: I can rely on online store websites to keep the promises that they make		0.918
Website design (WSD)		
WSD1: The online store provides in-depth information regarding products	Azhar and Bashir (2018)	0.847
WSD2: Online store offers appropriate personalized services		0.881
WSD3: Online store has a good selection of products		0.882
Security (SEC)		
SEC1: Payments on online store are safe and secure	Azhar and Bashir (2018)	0.845
SEC2: Online grocery store implements security measures to protect Internet shoppers		0.885
SEC3: Online grocery store has a very safe online paying mechanism		0.878
SEC4: The transactions are protected by the state-of-the-art security technique at this online store		0.862
Customer satisfaction (CS)		
CS1: I am satisfied with the purchase experience from online grocery shopping websites	Chin and Goh (2017) and Pham et al. (2017)	0.873
CS2: I am satisfied with the post-purchase experience of after-sales support from online store website		0.871
CS3: I am satisfied with the post-purchase experience of delivery care		0.920
CS4: Overall, I am satisfied with online grocery shopping experience		0.861

The survey was prepared in two sections. The first section includes the questions on demographic such as age, gender, etc. The second section of the survey included the question on the main constructs. All the latent constructs were measured using a seven-point Likert scale ranging from (1) strongly disagree to (7) strongly agree. The final list of measurement items is presented in Table 2 and has been adapted from the respective original studies.

Sample Demographics

The characteristics of the survey respondents are outlined in Table 3. They are primarily located in metropolitan or semi-urban areas, have a majority of bachelor's or higher degree holders (68.00%), and are between the ages of 18 and 34 (82.2%). In this poll, there is a roughly equal proportion of male (54.2%) and female (45.8%) participants by gender. Regarding annual family income, 51.7% of respondents reported having an income above 5 LPA, 33.1% reported having an income between 3 and 5 LPA and 15.3% reported having an income below 3 LPA. A total of 47.5% of respondents are from urban areas, 45% are from semi-urban areas, and the remaining 7.5% are from rural areas. In total, 51.7% of respondents are between the ages of 18 and 24, 30.5% are between the ages of 25 and 34, 11% are between the ages of 35 and 44, and the remaining 6.8% are over the age of 45. In addition, 47% of respondents were students, 24.6% of respondents worked for a private employee, 17.3% of respondents worked for the government and 11.1% of respondents were self-employed.

Common Method Bias

Common method bias pertains to the shared variance among the measured constructs that takes place when all the responses (independent and dependent variables) are collected using same method (Jordan & Troth, 2020; Podsakoff et al., 2012). The presence of common method bias results in artificial modification of the relationships between the constructs. In this study, to test if the data collected is not suffering from common method bias, we followed Podsakoff et al. (2012) approach of the 'single factor procedure'. In 'single factor procedure', model fit is evaluated in which all the measurement items are loaded onto one factor. The reasoning is that if the CFA model shows a good fit with the data, common method bias is largely responsible for the covariation among the constructs. The model fit for the single factor model (CMIN/DF = 4.923, GFI = 0.640, comparative fit index [CFI] = .707, RMSEA = 0.158) is very poor. It suggests that common method bias is not a serious concern in this study.

Results and Analysis

To test the proposed hypotheses, the theoretical model (Figure 1) was tested using regression analysis. In the first stage, to test the reliability and validity of measurement items, we performed CFA using SPSS-AMOS 23 software. After the validity and reliability check, multiple regression analysis was performed using SPSS-23 software.

Table 3. Respondents' Demographic Profile.

	Frequency (n = 118)	Percentage
Gender		
Male	64	54.2
Female	54	45.8
Age		
18–24	61	51.7
25–34	36	30.5
35–44	13	11.0
45 and above	08	6.8
Annual family income		
1–3 LPA	18	15.3
3–5 LPA	39	33.0
Above 5 LPA	61	51.7
Location		
Urban	56	47.5
Semi-urban	53	45.0
Rural	09	7.5
Occupation		
Student	55	47.0
Govt. employee	21	17.3
Private employee	29	24.6
Self-employed	13	11.1
Qualification		
Intermediate or lower	03	2.5
Bachelor's degree	50	42.4
Master's degree	49	41.5
Ph.D.	16	13.6

Validity and Reliability of Measurement Items

A measurement model was tested to ensure the psychometric properties of the items used (Figure 2). The measurement model in CFA showed an adequate fit with the data (see Table 4). Based on the recommendation proposed by Hair et al. (2018), the CMIN/*df* value is less than 3, and most of the cut-off criteria of the model fit indices were also met. To test the validity of the measurement items, we checked for the standardised factor loadings of the items, which are significant ($p < .001$) and more than 0.50 (Hair et al., 2018) (see Table 2). Also, no major cross-loading arose, supporting the unidimensionality of the latent variables. The reliability of latent constructs was assessed using Cronbach alpha values. As suggested in the literature, the values were more than the cut-off criteria of 0.70

Table 4. Model Fit Indices.

Model Goodness of Fit Indices	Cut-Off Values	Final Measurement Model	References
χ^2/df	<3	2.088	Hair et al. (2018)
RMSEA	<0.08	0.051	
GFI	>0.90	0.941	
AGFI	>0.80	0.915	
NFI	>0.90	0.920	
CFI	>0.90	0.956	

Table 5. Factor Correlation Matrix, Cronbach Alpha (α), Composite Reliability (CR) and Average Variance Explained (AVE).

Construct	Cronbach α	CR	AVE	CO	T	WSD	SEC	CS
CO	0.903	0.910	0.718	**0.847**				
T	0.904	0.909	0.770	0.836	**0.877**			
WSD	0.903	0.903	0.757	0.802	0.763	**0.870**		
SEC	0.924	0.924	0.753	0.755	0.715	0.842	**0.868**	
CS	0.931	0.933	0.777	0.784	0.743	0.838	0.818	**0.882**

Note: Diagonal values (bold) show the square root of the AVE.

(see Table 5). Based on the procedure recommended by Fornell and Larcker (1981), we also assessed the composite reliability values of the constructs, which are higher than the minimum cut-off level of 0.70.

The values of average variance explained (AVE) were also more than their cut-off levels of 0.5 (Hair et al., 2006). Lastly, following the approach proposed by Fornell and Larcker (1981), we tested for the discriminant validity of the latent constructs. The authors suggest that the correlation of the constructs should have lower values than the square root of the construct's AVE values, which is the case in this study (see Table 5). As a whole, the CFA results suggest that the measurement items are reliable and valid.

Multiple Regression Analysis

After measuring the research model's fitness against various parameters, hypothesis testing was done using multiple linear regression analysis. The regression model shown in Table 6 contributed significantly and predicted 81.8% of variance (adjusted R^2) in customer satisfaction by security, website design, trust and convenience in OGS.

Table 7 shows the coefficient summary for the proposed regression model, which shows that security (= 0.306, p = .001), convenience (= 0.161, p = .045) and website design (= 0.418, p = .001) are significant predictors of online grocery behaviour. It shows that convenience, security and website design have an effect on the dependent variable, that is, customer satisfaction when shopping for groceries online. However, the findings indicate that trust has no significant impact on customer satisfaction. With the highest coefficient beta, 0.418, website

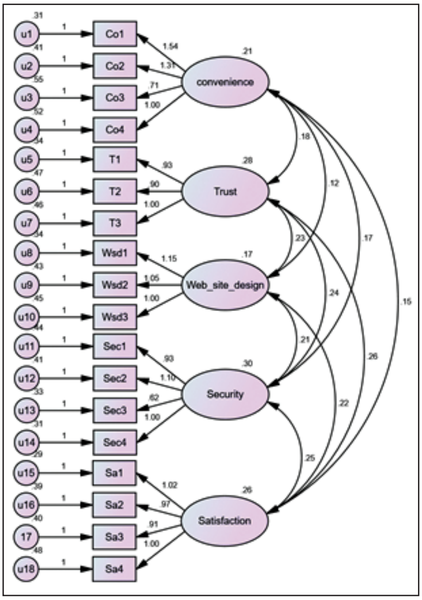

Figure 2. Confirmatory Factor Analysis of the Measurement Model.

Table 6. Model Summary for R Square.

Model	*R*	*R* Square	Adjusted R Square	Std. Error of the Estimate
1	0.908a	0.824	0.818	0.60123

Note: Predictors: (Constant), convenience, security, trust, website design.

Table 7. Coefficient Summary.

Model	Standardised Coefficients Beta	Sig	Status
Security	0.306	0.001	Accepted
Website design	0.418	0.000	Accepted
Trust	0.073	0.404	Rejected
Convenience	0.161	0.045	Accepted

Note: Dependent variable: Customer satisfaction.

design is identified as the most important factor influencing customer satisfaction on OGS.

Conclusion and Implication

OGS is a brand-new way to get your favourite supermarket items for home consumption. Many online grocery companies have made successful and sustainable online grocery retailing a top priority in today's highly competitive business environment, even though shopping online for groceries differs significantly from general online shopping due to its perishable nature and product variety. As this channel continues to grow rapidly in the next years, the perceived benefits of OGS give businesses a competitive advantage in various ways. Thus, for both multichannel and pure-play food e-retailers, OGS remains both an opportunity and a big administrative problem. The goal of this study is to understand the customer's perspective on the decisive aspects of OGS.

The main objective of this study is to examine the key factors affecting customer satisfaction in OGS in the Indian context. In OGS, many factors affect customer satisfaction. The study has included several independent constructs, for example, convenience, trust, website design and security to examine the impact on customer satisfaction. The main findings of this study are consistent with past research and further extend it. This study has confirmed that convenience, website design and security are positively associated with customer satisfaction.

The findings indicate that convenience is related to customer satisfaction in OGS, which suggest that customers like to buy their groceries without any hassles, and easiness in searching for the grocery items, and ability to buy at any time of the day from anywhere improves their satisfaction. The finding is consistent with previous results (Aylott & Mitchell, 1998; Bauerová & Klepek, 2018). Furthermore, website design and security positively influence customer satisfaction. It suggests that customer satisfaction is highly affected by the online grocery's website design and the level of relevant and detailed information provided about the groceries. Studies also suggest that shoppers are more willing to buy groceries online if they find the payment transaction to be properly secured. Previous studies have also indicated similar results (Pechtl, 2003; Prabowo & Hindarwati, 2020). Online grocery retailers need to make sure that customers feel secure while purchasing from their website. When customers feel that a grocery website has used a state-of-art security system and their financial information will not be shared with others, they are more satisfied with the grocery shopping process.

Trust, on the other hand, is not significantly affecting customer satisfaction. This particular finding is not in line with the previous studies (Inman & Nikolova, 2017). The reason for this might be that our sample responses mostly belong to younger age and given the usage of the internet in the current era, they have access to sufficient information about brand, product quality, delivery process, etc., and have become quite comfortable in online shopping.

With the increased use of e-commerce adoption by SMEs, many grocery retailers have entered the market. Due to increased competition in the market, online grocery retailers need to find out new ways to increase customer satisfaction. The findings provide many strategies for online grocery retailers to improve their customer satisfaction in the OGS process. Online retailers also need to make sure that the customer data is safe and not leaked or shared with others in any possible way. Customer data and financial information safe are very important in online shopping as here everything is driven by technology. Further, convenience is another important factor in driving customer satisfaction. Retailers need to ensure that the company's website is easy to access and search for the products. The whole process of searching and buying groceries is quick and easy as customers are concerned about the time, they spend to shop products. Several payment options should be given to the customers and transaction failure have a negative impact on customer satisfaction.

Theoretical and Managerial Implications

Our study confirms that TAM can still be used to describe online food buying. One important factor in developing a favourable opinion of OGS is website design. Our study approach is distinctive because it combines theoretical frameworks and illustrates a fresh perspective on how consumer satisfaction is developed—a perspective that was overlooked in earlier studies. The assumptions of the existing theories are extended by this method since it has been effective in enhancing our understanding of the factors that influence the intention to shop for groceries online. Our research confirms that convenience is related to customer satisfaction in OGS, implying that customers prefer to buy their groceries without any hassles, and that the ease of searching for grocery items, as well as the ability to buy at any time of day from anywhere, improves their satisfaction. Website design also has a positive influence on customer satisfaction. It implies that the design of the online grocery's website and the amount of relevant and detailed information provided about the groceries have a significant impact on customer satisfaction. These findings contribute to the existing literature by helping to understand the impact of customer satisfaction on OGS.

This study also contributes to the generation of managerial advice, as online grocery retailers must focus on developing a user-friendly website that provides consumers with an efficient and easy way to shop for groceries because shoppers need to experience a hassle-free process while searching for the products and product-related information on the website. They also need to ensure that the company's websites provide appropriate products and service suggestions to the shoppers and have a good range of products to offer to the customers. To summarise, if online grocery retailers want to increase the number of customers who shop online, they must first improve their attitude towards OGS by creating online solutions that are, above all else, useful and then develop customer loyalty by raising awareness and the calibre of the products and services offered.

Limitations and Future Research Directions

One of the limitations of this study is that it has considered only four factors that have an impact on customer satisfaction in the OGS process. There can always be other factors, for instance, individuals' characteristics, that can influence consumer satisfaction while shopping for groceries on the internet. Future studies can take other elements into the consideration and find the exact relationship of drivers of customer satisfaction in OGS. Apart from this, there is the possibility of the presence of some mediator or moderator variables, which might change the casual relationship among these factors. Understanding the customer needs will help the retailers to position their services and find an edge over competitors in this rapid growth of the online grocery industry.

Declaration of Conflicting Interests

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Article

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Labour Force Participation, Gender Equality and Women's Empowerment Through Micro-entrepreneurship: Evidence from Odisha, India

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Abstract

In this 21st century, the aggregative model of democracy would not be able to address the complex problem of a plural society where structural inequality is rampant. Hence, it is imperative to unearth a convenient way of the decision-making process through various social and economic empowerment factors, which enhance women's participation and awareness despite structural inequalities deeply rooted in Indian society in general and Odisha in particular. This article seeks to highlight the factors determining women's empowerment and identify issues related to the management of the enterprise. We have surveyed a hundred women entrepreneurs in the Ganjam district of Odisha, India, for the study. We have used multiple regression and Poisson regression models to identify the key determinants of women's empowerment. The study found that domestic decision, autonomy, self-confidence, business skills and public deliberation are significant determinants of the number of indicators adopted to enhance the overall empowerment index. The multiple regression models found that women's leisure, unpaid work, self-confidence, business skills and social status positively affect empowerment. The study found that micro-entrepreneurship is successful in the Ganjam district of Odisha. Hence, it is imperative to empower women through public deliberation and motivate them to participate in micro-entrepreneurship.

Keywords

Aggregative model of democracy, micro-entrepreneurship, Palli Sabha, public deliberation, women empowerment

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Introduction and Background of the Study

Women are considered the better half of society. They constitute 50% of the total world's population. Due to the patriarchal setup of society, their contributions are neglected in countries such as India. Women are only to take care of their homes and family. Now, this perception has completely changed. Women are now capable of taking care of their families as well as businesses. Micro, Small, and Medium Enterprises (MSMEs) significantly empower women economically, socially and domestically in developing countries (Dangi & Ritika, 2014). MSMEs carry on around 90% of the business across the world, and worldwide, they share 50% of the total workforce. Hence, MSMEs play an important role in a country's economic prosperity. Parvin et al. (2012) observed that women contribute their income to the family and economic progress by getting involved in entrepreneurial activities. The term 'women entrepreneurship' means a woman with some partners who started or inherited a venture, handling financial, social, and administrative risks and duties (OECD, 2004). The agriculture and non-agricultural sector provided self-employment to rural women. They converted them into entrepreneurs in activities such as cultivation, fish cultivation, livestock, poultry, plantation, nursery, handcrafting, tailoring and so on. Women entrepreneurs enjoy a better lifestyle than those who do not engage in such activities. Vasanthakumari (2012) advocated that poverty is a significant hindrance for developing and underdeveloped countries. It is observed that women-headed households are poor.

Generally, poverty, unemployment, ill-health and illiteracy are the major obstacles to public deliberation. Poverty and unemployment affect class solidarity, resulting in low attendance in public deliberation. 'Public deliberation has a long history of being celebrated by political theorists as a hallmark of true democracy, and it is increasingly being adopted as a tool for resource allocation among poor communities in the developing world' (Rao & Sanyal, 2010). As the United Nations, Human Development report said that 'in the past 15 years, the world has become more economically polarised both countries and within countries. If present trends continue, economic disparities between the industrial and developing nations will move from inequitable to human'. Public deliberation aims to bring prosperity to the life of rural people. The main challenges in rural societies are unemployment, poverty, inequality, discrimination, deprivation, ill health and social security measures.

The best way to make deliberation in Palli Sabha effective is to address these challenges. The active and meaningful participation and involvement of people in the deliberation of Palli Sabha are imperative for implementing the socioeconomic development programmes meant for them to accelerate their growth. There are many developmental programmes such as MDG, BRGF, MGNREGA, NRHM, SSA, ICDS, IWMP, RKVY[1] initiated by State Governments, Union governments and UNO to eradicate poverty, unemployment, ill-health and illiteracy in rural areas. It is the effective participation of rural people which makes the implementation of these programmes successful. Globally, women entrepreneurs constitute one-third of the total people involved in entrepreneurial activity (Amrita et al., 2018). Again, if the unorganised sector is considered, it is likely to play a crucial role. As per the All India Census of Small Scale Industries, women-owned 10.11% of the total micro and small enterprises, and 9.46% of them are managed by women (Ray & Ray, 2008). Problems of unemployment and poverty in rural and urban India can be solved effectively through micro & small entrepreneurship. Hence, enhancing their opportunities could change the scenario in both rural and urban areas. Entrepreneurship helps immensely in achieving faster economic growth. The growth of women entrepreneurs is higher than that of men entrepreneurs, and it is found that in developed nations, it is more than that in developing nations (Fazalbhoy, 2014). But the ownership of productive assets and women's decision-making power is negligible (Garikipati, 2008).

States such as Tamil Nadu, Kerala, Karnataka and Gujarat have more women entrepreneurs. However, Odisha needs to improve in this context even though ample opportunities are available here. We attempted to bridge the gap up to a certain level by conducting this empirical work in this state. Although female entrepreneurs perform well in different sectors, they still come across many challenges that adversely affect their growth. There are several socio-economic factors influencing the decision to start any new venture. It is essential to see how these factors across different locations and regions determine women's empowerment. Against this backdrop, this article seeks to highlight the labour force participation trends and sector-wise employment distribution (gender-wise) in India at the macro level, examine the factors determining women's empowerment and identify issues dealing with enterprise management at the micro-level.

This article has many implications while identifying various determining factors of women's empowerment through micro-entrepreneurship and public deliberation. First, it shows how large-scale data on the perception of women towards micro-entrepreneurship may guide other entrepreneurs for new start-ups. Second, highlighting several indicators of women's empowerment ensures women's upliftment, while mainstreaming gender equality issues and identifying grey areas of deprivation, which may guide policymakers in developing a gender-sensitive theory. Finally, this article reveals how far structural inequalities influence the participation of citizens through deliberation in Palli Sabha, the smallest unit of Panchayati Raj Institutions, and whether it can bring social justice, equality and liberty with the help of public deliberation in a plural society.

The article is organised in this manner: after the introduction and the statement of the objectives in 'Introduction and Background of the Study', a brief review of existing literature is presented in 'Review of Existing Literature'. 'Women's Labour Force Participation in India' highlights women's labour force participation in India and Odisha. 'Growth and Trend of Women Entrepreneurs in India' highlights the number of women entrepreneurs in Odisha. Data, methodology and variable construction are presented in 'Data, Variable Construction and Methodology of the Study'. Empirical results and subsequent discussions take place in 'Results and Discussion'. Finally, the article concludes with some policy implications.

Review of Existing Literature

Globally, women population constitutes half of the total population. However, their role in the progress of the economy is underestimated. They are socially and economically vulnerable due to less payment for the same work as men and fewer alternatives available to them to earn money (Arif et al., 2010; Slegh et al., 2013). According to the World Inequality Report (2022), globally, out of the total earnings from the labour force, the share of women is less than 35%, which was 30% in 1990. Once they achieve economic empowerment, it reduces violence from male partners and improves social status and freedom of mobility. Further, it has been studied that women engaged in entrepreneurial operations enjoy a better living standard than non-entrepreneurial women. Unfortunately, women workers' laws are not adequately implemented in the workplaces, which again marginalises their conditions (Arif et al., 2010). Hence, upliftment of the women is a key to the prosperity of any nation, and it should be taken care of by the national government.

Nachimuthu and Gunatharan (2012) highlighted that women can be self-dependent if we provide freedom and opportunities to them that they did not access before because of their female gender nature. The socioeconomic status of women is considered an indicator of the development of a society or country. There is less access to resources by women in India. They are considered the vulnerable group. The government of India adopted the concept of gender budgeting in the year 2005–2006 for achieving gender mainstreaming. In India, earlier, women were mostly engaged in the 3 Ks: Kitchen, Kids & Knitting, and 3 Ps: Powder, Pappad & Pickles, and engaged in the 4 Es: Electricity, Electronics, Energy & Engineering. Akram et al. (2015) try to evaluate the significance of microenterprises in women's movement and economic freedom and social upliftment. Slegh et al. (2013) explained that the share of women in the total paid workforce is 40% and 43% of the agricultural labour force. Women lag behind men in terms of income even though they do the same work and there are also few alternatives for earning income available to them. Economic empowerment of women associated with a decline in violence from male partners improves social status and freedom of mobility. Arif et al. (2010) analyse gender-related social and economic issues, and gender inequality, and adopt policies that can address poverty, vulnerability and food insecurity in Indonesia. Women are socially and economically vulnerable due to fewer employment scopes and low pay for their work. They are primarily engaged in the informal sector and even high-risk work such as sex work. Women workers' laws are not adequately implemented in the workplaces, which marginalises their conditions.

Devi (2013) attempted to examine the steps taken by the government for women's entrepreneurship development, analyse existing policies for women's entrepreneurship and institutional support, and suggest measures to make a conducive environment for the progress of women's entrepreneurship. Joseph et al. (2016) highlighted the role of MSMEs in women's entrepreneurial development. Verghese (2011) attempted to assess women's empowerment in Oman, particularly in the household, economic and social empowerment. Bushra and Wajha (2015) examined the factors influencing women's empowerment in Pakistan. The study was carried out in two educational institutes in Pakistan, taking 200 sample sizes, and the respondents were the students of age group 17–27, doing bachelor programme. The Likert scale was used for analysis. Dangi and Ritika (2014) analysed the growth and performance of MSMEs in India and the obstacles that women entrepreneurs faced and also highlighted the measures taken by the government for women entrepreneurs. They found that there are two factors responsible for women's entrepreneurship, that is, pull factors (such as aspiration for autonomy and independence, personal satisfaction, challenging gender stereotypes, the gap in the market, etc.) and push factors (such as unemployment, need for higher income, desire for a higher standard of living, financial incentive from govt. schemes, etc.).

Women's Labour Force Participation in India

Women's participation in the labour force is inevitable for the growth of their potential and economic independence. Labour force participation is an important contributor to growth and development. ILO (2016) states, 'Labour force participation is a measure of the proportion of a country's working age population that engages actively in the labour market, either by working or looking for work. As the sum of the employed and unemployed, this indicator signals the relative size of the labour supply available to produce goods and services'. India now ranks 120th out of 131 countries participating in women's labour force. The gender comparison of labour force statistics in India is presented in Table 1.

From Table 1, it is evident that there is considerable variation among urban and rural areas, but the overall labour force participation rate is low in India. Rural India is showing a declining trend, while in the urban area, it is increasing. Between 2009–2010 and 2011–2012, the share of rural women decreased from 26.5 to 25.3, while urban women increased from 14.6 to 15.6 during the same period. This decline in economic activity represents sub-optimal utilisation of India's human capital. Based on data from 2000 to 2004, women in India mostly attend domestic duties shown below.

Women's household maintenance duties have increased over the years in rural and urban areas. As per the results of the NSS 68th round data, 46.1% of females in urban areas and 35.3% of females in rural areas were engaged in domestic work, which clearly shows how low is the labour force participation rate in India (Majumdar & Neetha, 2011). Because these activities are not recognised in the System of National Accounts, out of the total, 34% in rural and 28% in urban areas reported their willingness to accept work if it is available at their local place. Ninety-five percent consider that both areas are willing to work regularly. The table below shows both distribution of women workers in various sectors and their respective employment statuses in total.

Table 1. Labour Force Participation Rates in India (%).

Year	Male (Rural)	Female (Rural)	Male (Urban)	Female (Urban)
1993–1994	56.1	33.1	54.3	16.5
1999–2000	54.0	30.2	54.2	14.7
2004–2005	57.1	33.3	55.5	17.8
2009–2010	55.9	26.5	55.6	14.6
2011–2012	56.3	25.3	55.3	15.5

Source: National Sample Survey various rounds.

Table 2. Percentage of Females Performing Domestic Workout of Total Females in India.

Years	Rural	Urban
1993–1994	29.1	41.7
1999–2000	29.2	43.3
2004–2005	27.2	42.8
2009–2010	34.7	46.5
20011–2012	35.3	46.1

Source: National Sample Survey various rounds.

The occupational pattern of women shows that although the share declined, most are still engaged in primary activities (62.8%), characterised by low productivity. The secondary sector is showing an increasing trend with (20.0%), and the rests are in tertiary activities (17.8%). As far as the status in employment is concerned, the share of self-employed increased compared to the previous round and remains in the sphere employing a large number of women (56.1%); very few are in regular salaried employment (12.7) and 31.2% are casual labourers. This shows a dire need to promote women's participation in quality and remunerative jobs.

From the facts mentioned above, it is clear that women think of self-employment as a source of their economic upliftment, given the inherent conditions shaping their lives.

Women Labour Force Participation in Odisha

The labour force participation rate for females in Odisha stood at 25.1% in rural areas, whereas 15.8% in urban areas. They perform household chores.

From the Table 2, it can be inferred that irrespective of the type of area, women in Odisha mainly prefer self-employment as a source of participation in the labour force. After that, they go for casual employment followed by regular salaried jobs.

Growth and Trend of Women Entrepreneurs in India

MSMEs comprise almost 40% of industrial production, 95% of the industrial units, 45% of the exports, and manufacture over 6,000 products (MSME Annual Report, 2015–2016). The Ministry of MSMEs supports women entrepreneurship. It is a creative sector where women can show their potential and run their businesses efficiently with low investments or household materials (Fazalbhoy, 2014).

Table 5 highlighted the comparison between the third and fourth MSME Census. There has been an increase in the number of registered Small-Scale Industries (SSIs) in the third Census from 13.75 (lakh) to 15.64 (lakh) in the fourth census of MSME. It has also been noted that the number of registered women enterprises increased from 1.38 (lakh) to 2.15 (lakh) during the same time. The unregistered sector also depicts the same trend in both all sector enterprises and women enterprises. However, the growth of the unregistered sector is more significant than the registered sector in both the censuses.

According to the third census, the number varies from the highest of 139,225 in Kerala to 67 in Lakshadweep. According to the fourth census, the number varies from 395,293 in Tamil Nadu to 106 in Lakshadweep. Odisha has a better rank in the fourth census (7th) than in the previous one (11th). However, the number of Entrepreneurs increased from 38,233, accounting for 3.59% of all Indian totals (in the third census) to 86,302, accounting for 4.49% of all Indian totals in the fourth Census in Odisha.

From the Table 3, it is clear that women's entrepreneurship is primarily skewed towards micro and small-size firms in India. In the case of medium enterprises, the number of registered enterprises stood at 4.21%, whereas there are no unregistered medium enterprises.

The distribution of registered and unregistered women enterprises in all three types of activities shows that there are more manufacturing enterprises, that is, 50.47% and 72.74%, respectively. Registered service enterprises stood at 40.97% and unregistered enterprises are 22.27%. Similarly, in repairing and maintenance, the percentage share is 8.55 and 4.88, respectively.

The above table reveals the nature of the operational feature of women entrepreneurship in India. Most of the units are Perennial in both the registered (97.11%) and unregistered (93.14%) sectors. In the registered sector, 2.48% are seasonal, compared to 2.67% in the unregistered sector. 0.4% is casual in the registered sector, whereas 4.18% are in the unregistered sector.

The table shows the type of organisation of women entrepreneurs in India by the size of enterprises. The list of proprietary women entrepreneurs is higher in both registered (86.3) and unregistered (96.78) enterprises. The distribution of registered units under the partnership of women entrepreneurs is 2.61, and unregistered is 1.72. The registered companies of women entrepreneurs are 1.15, whereas there are no unregistered private companies of women entrepreneurs. The registered public company owned by women is 0.36, whereas there are no unregistered public limited companies of women entrepreneurs. The cooperative organisation of women entrepreneurs in registered and unregistered enterprises is 0.51 and 0.17, respectively. The registered units, under other categories owned by women entrepreneurs, are 9.30, and in unregistered units, it is 1.31.

Women Entrepreneurs in Odisha

In the eastern region of the country, females in Odisha constitute 49.46% of the total state population as per the 2011 census report. Table 10 shows the total

Table 3. Sector-wise Distribution of Women Workers and Their Employment Status (%).

Years	Sectors (%)			Employment Status (%)		
	Primary Sector	Secondary Sector	Tertiary Sector	Self-employed	Regular Salaried	Casual Labour
2011–2012	62.8	20.0	17.2	56.1	12.7	31.2
2009–2010	68.7	16.3	15.0	53.3	10.1	36.6
2004–2005	73.9	13.3	12.8	61.4	8.3	30.3
1999–2000	76.3	11.7	12.0	55.8	7.1	37.1

Source: National Sample Survey various rounds.

Table 4. Distribution of Women Workers and Their Employment Status in Odisha.

Status in Employment (%)	Rural Area	Urban Area
Self-employed	66.1	58.0
Regular salaried	3.4	27.1
Casual labour	30.5	14.9

Source: NSSO, 68th Round.

Table 5. Comparison Between Third and Fourth Census (in Lakh).

	Third Census (2001–2002)		Fourth Census (2006–2007)	
Characteristics	All Sector (SSI)	Women (SSI)	All Sector (MSME)	Women (MSME)
Registered	13.75	1.38	15.64	2.15
Unregistered	91.46	9.26	198.74	18.06

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

Table 6. Type of Women Enterprises in India (in %).

Type of Enterprise	Micro	Small	Medium
Registered	14.19	5.06	4.21
Unregistered	9.10	3.01	0.00

Source: Fourth All India MSME Census Report, 2006–2007, GOI.

Table 7. Type of Activity Performed by Women Entrepreneurs in India (%).

Type of Activity	Registered (Thousand)	Unregistered (Lakh)
Manufacturing	108.31 (50.47)	13.13 (72.74)
Service	87.96 (40.97)	4.02 (22.27)
Repairing and maintenance	18.36 (8.55)	0.9 (4.98)
Total	214.65 (100)	18.05 (100)

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

Table 8. Operational Features of Women Entrepreneurship in India.

Nature of Operation	Registered (Thousand)	Unregistered (Lakh)
Perennial	208.47 (97.11%)	16.71 (93.14%)
Seasonal	5.34 (2.48%)	0.48 (2.67%)
Casual	0.86 (0.40%)	0.75 (4.18%)
Total	214.67 (100%)	17.94 (100%)

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

Table 9. Type of Women Entrepreneur's Organisation in India.

Type of Organisation	Registered (Thousand)	Unregistered
Proprietary	184.7 (86.3)	16.87 (96.78)
Partnership	5.62 (2.61)	0.3 (1.72)
Pvt Company	2.48 (1.15)	0
Pub. Ltd Company	0.79 (0.36)	–
Co-operatives	1.1 (0.51)	0.03 (0.17)
Others	19.98 (9.30)	0.23 (1.31)
Total	214.67 (100)	17.43 (100)

Source: Fourth All India MSME Census Report, 2006–2007, Government of India.

registered enterprises and women enterprises in Odisha from 2005–2006 to 2015–2016. The total number of MSMEs during the years is 178,242, of which 20,095 are women enterprises. The percentage of women in total enterprises is only 11.27%. The minimum registered women enterprises percentage was 9.85% during 2014–2015 and the maximum in 2013–2014 with 15.70%. In Odisha, out of total women enterprises, micro-enterprises are more than small and medium enterprises, showing that it is more convenient for women to operate small-sized firms than larger ones (refer Tables 2 to 9 for detail).

Data, Variable Construction and Methodology of the Study

The present study is based on both secondary and primary data. We have chosen Ganjam, one of the districts in Odisha, which has excellent prospects for business and development. The main reason behind our study area selection is the following: since one of the constituencies, that is, Hinjilicut belongs to the chief minister of Odisha; the population of this district is the highest in Odisha according to the 2011 census; the Ganjam district is the biggest business hub in Odisha. Information is collected from various sources such as the economic survey of India, the economic survey of Odisha, MSME annual reports, DIC, Ganjam, etc. We have adopted a purposive sampling method to identify the study area. We

Table 10. Total MSMEs and Women MSMEs in Odisha.

Year	Total Units Set Up			Unit Set Up by Women			Percentage
	No. of Units	Investment (in Lakh)	Employment	No. of Units	Investment (in Lakh)	Employment	
2005–2006	4,786	27,044.34	25,142	508	1,991.54	2,663	10.61
2006–2007	4,556	27,113.50	20,839	526	2,049.7	2,863	11.54
2007–2008	4,710	29,551.18	23,301	630	2,804.60	3,917	13.37
2008–2009	4,806	22,792.21	20,996	644	2,452.79	3,182	13.39
2009–2010	4,907	29,233.69	23,195	645	4,293.65	4,122	13.14
2010–2011	5,016	39,502.13	24,451	664	4,349.13	4,100	13.23
2011–2012	5,505	50,073.1	30,387	757	7,486.01	5,384	13.75
2012–2013	5,931	43,290.75	27,104	886	5,006	4,269	14.93
2013–2014	7,009	66,942.04	32,136	1,101	8,280.5	5,394	15.70
2014–2015	29,866	226,723.56	107,011	2,943	14,498.11	11,057	9.85
2015–2016	53,920	267,963.96	166,731	7,515	24,985.44	23,823	13.93
Total	178,242	1,015,032.05	746,934	20,095	91,552.82	91,592	11.27

Source: Directorate of Industries, Odisha.

interviewed hundred women entrepreneurs through a questionnaire method using a simple random sampling method. We have adopted the Likert scale, multiple regression and Poisson regression method for data analysis.

Table 11 shows our construction of economic empowerment and social empowerment variables and identifies various issues in their measurement and an a-priori association of variables. Looking at the recent trend pattern of women labour force participation and entrepreneurship in India and anticipated changes in frequency and intensity of participation in the study area, adaption to different strategies becomes a necessity (should women aim for high income or earn a better position in society). In responding to dynamics in labour force participation, women adopt a mix of strategies. To identify significant determinants of strategies followed by the sample respondent, we have used a Poisson regression technique dealing with the count variable following Tambo (2016) and Boansi et al. (2017) as:

$$A_{Ni} = \beta xi + \varepsilon i \tag{1}$$

where A_{Ni} is the number (N) of strategies implemented by women entrepreneurs *i, Xi* is a vector of socioeconomic and overall empowerment variables/indicators and εi represents the corresponding random errors.

Similarly, the multiple regression model is used to identify several factors of empowerment in our study area as:

$$\begin{aligned}\text{Overall empowerment} = {} & \alpha_0 + \beta_1\text{microentrepreneurship} + \beta_2\text{income} + \beta_3\text{expenditure} + \beta_4\text{asset value} \\ & + \beta_5\text{bankaccount} + \beta_6\text{decision} + \beta_7\text{selfemployment} + \beta_8\text{creditmanagement} + \beta_9\text{domesticdecision} \\ & + \beta_{10}\text{autonomy} + \beta_{11}\text{mobility} + \beta_{12}\text{leisure} + \beta_{13}\text{unpaidwork} + \beta_{14}\text{selfconfidence} + \beta_{15}\text{businessskills} \\ & + \beta_{16}\text{socialstatus} + \beta_{17}\text{publicdeliberation} + \varepsilon\end{aligned} \tag{2}$$

Results and Discussion

From the estimation of the above Equation 1 using Poisson regression shown in Table 12, we find that domestic decision, autonomy, self-confidence, business skills and public deliberation are significant determinants of the number of indicators adopted to enhance the overall empowerment index. Women entrepreneurs having the power to decide domestic issues are likely to use 0.098 extra strategies to enhance their empowerment index. Women who have received complete autonomy to decide both family and job-related decisions are likely to use 0.149 extra strategies to enhance their empowerment index. Women having a considerable amount of self-confidence regarding entrepreneurship decisions are likely to use 0.292 extra strategies to enhance their empowerment index. Women having business skills earlier are likely to use 0.137 extra strategies to enhance their empowerment index. Similarly, women participating in Palli Sabha regularly are likely to use 0.231 extra strategies to enhance their empowerment index.

Table 13 highlights several instruments of empowerment. We found out of 17 instruments, 10 instruments are significantly influencing women's empowerment. The value of R^2 is 0.92 implies a relatively good fit. The mean VIF is 2.73 implying no multicollinearity among the explanatory variables. Breusch-Pagan/Cook

Table 11. Construction of Variables and Their Measurement Tools.

Number of Variables	Description and Measurement	Type	Expected Sign
Economic empowerment			
Income	High-income generation through micro-entrepreneurship indicates empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Expenditure	High expenditure reflects empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Saving	High saving amount reflects empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Ownership of asset	Acquisition of asset implies empowerment Measured through Likert scale from 1 to 10	Continuous	Positive
Bank account	Types of account created after entering into MSME Assumes 2 if independent, and 1 otherwise	Discrete	Positive
Enterprise decision making	Own decision implies empowerment Assumes 2 if independent, and 1 otherwise	Discrete	Positive
Employment	Number of days per month employed Measured through Likert scale from 1 to 5	Continuous	Positive
Management of credit	Credit management and access by themselves imply empowerment Assumes 2 if managed by them, and 1 otherwise	Discrete	Positive
Social empowerment			
Domestic decision making	Involved in the domestic decision-making process implies empowerment Measured through Likert scale from 1 to 5	Discrete	Positive
Personal decision-making autonomy	Independent in deciding own problems implies empowerment Measured through Likert scale from 1 to 5	Discrete	Positive
Physical mobility	Physical mobility freedom implies empowerment Assumes 0 if static, 1 if it is rare, 2 if is very often and 3 if it is all the time	Dummy	Positive

(Table 11 Continued)

(Table 11 Continued)

Number of Variables	Description and Measurement	Type	Expected Sign
Leisure	Availability of leisure time implies empowerment Assumes 1 if satisfied, 0 if unsatisfied	Dummy	Positive
Unpaid work	A decline in unpaid work implies empowerment Assumes 1 if it is less, 0 if there is no change and –1 if it is increased over time	Dummy	Negative
Business skill	Technical know-how and knowledge in own business implies empowerment Assumes 0 in case of poor, 1 if it is satisfactory, 2 if it is good and 3 if it is excellent	Dummy	Positive
Social status	Improved status in society indicates empowerment Assumes 0 in case of static, 1 if it is less, 2 if it is more, 3 if it is much more, 4 if it is relatively high	Dummy	Positive
Public deliberation	Proactive in Palli Sabha participation Takes value 0 if no participation, 1 if participated actively	Dummy	Positive

Source: Singh and Saxena (2000); Sharma and Verma (2008); Parvin et al. (2012); Vasanthakumari (2012); Yasmin and Gangaiah (2014); Asharani (2016); and Senapati and Ojha (2019).

Weisberg's heteroscedasticity test reveals there is no heteroscedasticity. We found Income as a significant variable that has a positive relationship with the overall empowerment of women. This result is in line with the findings of Sharma and Verma (2008) and Senapati and Ojha (2019). We found that self-employment generation has a positive association with overall women empowerment, which is in line with the findings of Vasanthkumari (2012) and Senapati and Ojha (2019). Similarly, we found domestic decision-making, autonomy, leisure, unpaid work, self-confidence, business skills and social status also positively affect the overall women empowerment, which is in line with the findings of Singh and Saxena (2000); Sharma and Verma (2008); Parvin et al. (2012); Vasanthakumari (2012); Yasmin and Gangaiah (2014); Asharani (2016); and Senapati and Ojha (2019). We found that micro-entrepreneurship enhances the social status of the sample respondent. It is also playing an important role in taking domestic-related decisions, enhances business-related skills and knowledge, and reduces unpaid domestic work. Women are now confident about taking entrepreneurial decisions and business-related decisions and enjoy making decisions for them, reducing

Table 12. Determinants of the Number of Empowerment Indicators Adopted Using Poisson Regression.

Dependent Variable: Number of Indicators Adopted		
Variables	Coefficient	Standard Errors
Micro-entrepreneurship	0.163	0.248
Income	0.0002	0.00003
Expenditure	0.0001	0.00003
Asset value	0.01	0.07
Bank account	`0.242	0.65
Decision	0.054	0.227
Self-employment	0.021	0.218
Credit management	–0.075	0.218
Domestic decision	0.098**	0.049
Autonomy	0.149***	0.062
Mobility	0.0002	0.1119
Leisure	0.219	0.189
Unpaid work	0.051	0.162
Self-confidence	0.292***	0.128
Business skills	0.137*	0.102
Social status	0.048	0.114
Public deliberation	0.231*	0.355
Constant	–3.09***	1.377
LR Chi^2 (17)	89.58	
Prob > Chi^2	0.0000	
Pseudo R^2	0.26	
Number of observations	100	
Log likelihood	–126.524	

Note: *, ** and *** represent statistically significant at 1%, 5% and 10% level, respectively.

issues in the family, improving the value of physical assets, generate a sufficient number of employment days, respectively, after entrepreneurship. We also found entrepreneurship enhances saving habits, improves physical mobility, meets rising expenses and independently manages credit required for enterprise, and the level of personal income increases, respectively, after starting the business activities.

Table 13. Determinants of Overall Empowerment Using Multiple Regression Model.

Variables	Coefficient	Standard Errors
Micro-entrepreneurship	0.151	0.125
Income	0.00072***	0.00002
Expenditure	0.0001	0.00002
Asset value	0.04	0.018
Bank account	`0.115	0.278
Decision	0.142	0.124
Self-employment	0.021***	0.008
Credit management	–0.014	0.13
Domestic decision	0.223***	0.03
Autonomy	0.205***	0.031
Mobility	0.092	0.069
Leisure	0.355***	0.109
Unpaid work	0.182**	0.097
Self-confidence	0.334***	0.064
Business skills	0.255***	0.063
Social status	0.179***	0.059
Public deliberation	0.184	0.186
Constant	–3.203***	0.586
F (17, 82)	53.63	
Prob >F	0.0000	
R^2	0.92	
Adjusted R^2	0.9	
Number of observations	100	

Note: *, ** and *** represent statistically significant at 1%, 5% and 10% level, respectively.

Conclusion

This article highlights the growth and trend pattern of women labour force participation and entrepreneurship in India. Also, it detects the determining factor of the overall empowerment of women based on our cross-sectional survey data collected during 2020–2021. An OLS and Poisson regression model was employed to explore the determinants of empowerment diversity, and the following salient points emerge from the analysis. The share of women MSMEs in total MSMEs is very low. It can be noted that the growth of women entrepreneurs is more in both the third and fourth censuses of MSME, in the unregistered sector in India. Women are primarily establishing micro-enterprises at national, state and district levels than small and medium enterprises.

The crucial economic variables influencing overall empowerment are income, the business decision of women and self-employment. Social variables significantly influence social empowerment. Based on the results of Poisson regression envisaging the number of empowerment indicators adopted reported that domestic decision, autonomy, self-confidence, business skills and public deliberation are significant determinants of the number of indicators adopted to enhance the overall empowerment index. So, we can conclude that micro-entrepreneurship is successful in the Ganjam district of Odisha. We found finance as an important issue in managing enterprises. We also found that maintaining proper balance in the family as well as job life, adequate marketing of the product, unattractive price of the product and substantial workloads are also several challenges faced by women entrepreneurs.

Limitations, Policy Implications and Future Research

This study contributes to both policy and managerial implications. There are several limitations of the study which may be noted. First, we have adopted a cross-sectional, perception-based study, which is very subjective and not free from sample bias. Second, we have not incorporated psychological and cultural aspects of empowerment in our study. Third, we have confined our study to one selected district, which may be difficult to generalise without considering different state regions. Fourth, here, we have excluded unregistered MSME units, so we failed to perform a general equilibrium analysis. Fifth, there are non-response cases due to fear and shyness of the sample respondents. Yet, the findings have significant relevance in guiding plans and policies related to women's empowerment and also for new entrepreneurs who want to start up their new businesses with and without the support of the government. It also may guide policymakers in setting up new norms and regulations for MSMEs and also relevant in guiding them to a better success story in various regions of the country.

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Note

1. MDG: Millennium Development Goals; BRGF: Backward Regions Grant Fund; MGNREGA: Mahatma Gandhi National Rural Employment Guarantee Act; NRHM: National Rural Health Mission; SSA: Sarva Shiksha Abhiyan; ICDS: Integrated Child Development Services; Integrated Watershed Management Programme; RKVY: Rashtriya Krishi Vikas Yojana.

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Article

Leadership, Governance, Institution Building, Quality Assurance and the Role of Stakeholders in Accreditation of Higher Education Institutions

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Abstract

Higher education institutions (HEIs) are under growing pressure to raise the standard of education they offer and to be more creative. Institutional accreditation acts as a quality control to make sure that institutions stay true to their mission and continue to benefit students academically. Accreditation has undergone major adjustments. As a per recent changes in higher education, the educational institutions and other bodies are rethinking how to demonstrate academic excellence to students who may not be participating in the traditional collegiate experience. Because of the pandemic, higher education had to quickly switch to a new approach to instruction, delivery, assessment and community engagement. These universities were able to experiment with new degrees of innovation while maintaining a high standard of quality through online and remote learning which justifies the need and motivation for this research. The article begins by outlining the increasingly varied spectrum of higher education stakeholders, including students, academicians and other interested parties, which has given rise to concerns about the quality of education and institution building. The relevance of leadership, governance, institution building and quality assurance in HEIs for accreditation requires properly carrying out its role as discussed in the later part of the article. The article is based on an extensive review of the accreditation system in India and summarises the implication of governance, leadership, quality assurance and institution building for better

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ratings. As the accreditation system is evolving with time, there lies a scope for future research.

Keywords

Leadership, governance, higher education institutions, quality assurance, stakeholders, accreditation

Indian higher education is completely regulated. It's very difficult to start a private university. It's very difficult for a foreign university to come to India. As a result of that, our higher education is simply not keeping pace with India's demands. That is leading to a lot of problems which we need to address.

—Nandan Nilekani

There was a time when bright people had few prospects for higher education and good jobs here. But that is changing. India is no longer seen as an undesirable place to work or pursue research.

—Shashi Tharoor

Introduction

Advanced education is vital for social, profitable, artistic, scientific and political development. Education enables individuals to change from being mortal beings to enjoying mortal coffers. To foster invention, gift, rigidity and an exploration mindset in the current setting of globalisation, high-quality advanced education is needed. It is pivotal to make sure that education is upholding the minimum criteria necessary to satisfy the constantly shifting conditions across the globe in order to completely use its results. A nation's advanced education system is estimated using delegation, a potent quality assurance instrument. An accredited academy or programme passes a rigorous process of external peer evaluation grounded on destined criteria or principles and conforms with the minimal conditions. Accreditation is regarded as a quality seal. In a country like India, which is the reflection of a society full of diversity, distinct testaments and varied contemporary opinions, the conception of advanced education has different effects on different people. The pluralism of views is relatively ineluctable; some would comment that it should be like that only. Still, as we intend to bandy and learn further about quality in advanced education, we should ask ourselves: What is advanced in advanced education? You, as a schoolteacher/stakeholder of advanced education, will agree that it is not just about the advanced position of educational structure in the country. There is more to the story. Regarding the position, advanced education encompasses university and council tutoring programmes for literacy development as students work to get advanced educational credentials. To progress students to new frontiers of knowledge in various fields of endeavour, advanced education gives in-depth knowledge and comprehension (subject disciplines). The twenty-first century has begun with an explosion in the number of advanced education scholars. According to the United Nations Educational, Scientific and Cultural

Organization (UNESCO), registration for advanced education has increased roughly from 72 million in 1999 to 133 million in 2004. Banning North America and Western Europe, registration for advanced education in the rest of the world further than doubled in those five years, with an increase from 41.1 million to 99.1 million. China alone increased its share from 6.4 million in 1999 to 19.4 million in 2004, giving it the largest advanced education registration in the world. It further increased to 23 million in 2005. This massive expansion is taking place for at least two reasons: first, an increase in social demand for advanced education; and second, an increase in the profitable need for furthering largely educated mortal coffers. In the case of India, the deficit of professed manpower is a cause for concern in utmost sectors. Experts admit that the present advanced education system in India is not equipped to address this problem without some changes in the introductory structure that includes governance and leadership. Official records show that the gross registration rate in advanced education is only 11%, while the National Knowledge Commission says only 7% of the population between the age group of 18 and 24 registers for advanced education. In addition, those who have access to advanced education are not assured of quality education. Despite having over 300 universities, not a single Indian university is listed in the top 100 universities of the world. The increase in social demand for advanced education is a result of the following five factors:

1. Every country and accordingly every citizen wants to become a member of the emerging knowledge society.
2. The democratisation of societies and the vacuity of open distance literacy, e-learning, part- time education and special requirements education are attracting further scholars who would not else be there.
3. In utmost industrialised countries, an increasing number of elderly citizens are looking for advanced education for its own sake (advanced education for culture).
4. The ‘Education for All’ programme espoused by the UNESCO member countries is also adding social demand for advanced education through expansion of lower situations.

The National Assessment and Accreditation Council (NAAC) oversees institutional position, evaluation and delegation in India. In July 2017, NAAC streamlined its frame for quality and excellence in health care and added a Quality Indicator Framework (QIF) with criteria that combine quantitative data (72 weightage) and qualitative data (28 weightage) (NAAC, 2013). Table 1 displays a comparison of NAAC’s new fashion and old approach.

Research Methodology

The current article is a theoretical review, which comes from various secondary sources such as research articles in journals, books, newspapers and websites of accreditation bodies. It is basically a content review article on the accreditation system in higher education institutions (HEIs) in the Indian context.

Table 1. Comparison of Old Methodology Versus New Methodology of NAAC Accreditation Criteria and Processes.

Old Methodology (FY 2007)		New Methodology (FY 2019)	
1. Criteria and weightage of marks			
Criteria	Weightage	Criteria	Weightage
1.1 Curricular aspects	150	1.1 Curricular aspects	150
1.2 Teaching–learning evaluation	250	1.2 Teaching–learning and Evaluation	200
1.3 Research, innovations and extension	200	1.3 Research, innovations and extension	250
1.4 Infrastructure and learning resources	100	1.4 Infrastructure and learning resources	100
1.5 Student support and progression	100	1.5 Student support and progression	100
1.6 Governance and leadership	150	1.6 Governance, leadership and management	100
1.7 Innovative practices	50	1.7 Institutional Values and Best Practices	100
2. Types of metrices			
100% qualitative metrices (responses were required in descriptive nature)		More weightage is given to quantitative (numeric) metrices (72% weightage) and qualitative (descriptive) metrics are given 28% weightage. A component of student satisfaction survey (SSS) is also added for assessment.	
3. Methods of data entry, final submission and further communication with NAAC			
Manual system of preparing documents for self-study report (SSR). Converting into PDF files and submission through CDs along with 10 hard copies to be sent through courier to the NAAC office.		Online data entry in SSR through the NAAC portal. All communication with NAAC in between and after submitting the SSR is online through NAAC Helpdesk available on the portal.	
4. Data validation and verification (DVV) process			
DVV process was done by the NAAC team		Third party(s) are involved into the process of DVV	
5. Grading system			
Letter Grade and Performance Descriptor	Cumulative Grade Point Average (CGPA)	Letter Grade and Performance Descriptor	Cumulative Grade Point Average (CGPA)
'A' Grade Very good (accredited)	3.01–4.00	'A++' Grade (accredited)	3.51–4.00
'B' Grade Good (accredited)	2.01–3.00	'A+' Grade (accredited)	3.26–3.50

(Table 1 Continued)

(Table 1 Continued)

Old Methodology (FY 2007)		New Methodology (FY 2019)	
'C' Grade Satisfactory (accredited)	1.51–2.00	'A' Grade (accredited)	3.01–3.25
'D' Grade Unsatisfactory (not accredited)	≤1.50	'B++' Grade (accredited)	2.76–3.00
		'B+' Grade (accredited)	2.51–2.75
		'B' Grade (accredited)	2.01–2.50
		'C' Grade (accredited)	1.51–2.00
		'D' Grade (not accredited)	≤1.50

Source: NAAC Institutional Manual for Self-Study Report Universities (http://naac.gov.in/index.php/en/assessment-accreditation#accreditation).

Accreditation: Concept and Purpose

Accreditation of HEIs reflects 'Quality', the dictionary meaning of accreditation is 'official recognition, guarantee of quality and general acceptance'. A higher education institution's academic programmes and staff-related services are evaluated by an outside organisation known as the accreditation body or accreditation agency as part of the accreditation process, which is a type of quality assurance procedure that determines whether the higher education institution satisfies applicable standards. The accreditation authority or agency grants the institution accredited status if it satisfies the necessary requirements. The accreditation agency primarily evaluates institutional criteria such as governance, leadership and management; programme, course and subject/module specifications; curriculum; teaching, learning and assessment; research, consultancy, training; student support and student progression; innovation and best practices; and learning resources and infrastructure.

A regulating authority, commission under the higher education minister or an international organisation would have made the decisions regarding the criteria relating to the minimum relevant standards for all the institutions. Depending on the agency, the certification process might take from 6 to 18 months. The methods and process for accreditation differ. Academicians selected by the accreditation body, who are experienced in accreditation processes and who are drawn from several reputable schools, carry out the accreditation process. Higher education institutions use accreditation to communicate to all of their stakeholders—students, parents, recruiters, alumni, staff, administration and the governing body—the calibre of their educational processes. Accreditation helps higher education institutions to market their programmes nationally and internationally. In most countries around the world, the function of accreditation for higher education institutions is conducted by government institutions, such as the ministry of education or the department of higher education in the human resources development ministry. In India, the NAAC is an institution that assesses and accredits institutions of higher education. It is an autonomous body funded by the University Grants Commission (UGC) of Government of India, headquartered in Bangalore. The National Board of Accreditation (NBA), India, was initially established by All India Council of Technical Education (AICTE), which undertakes periodic evaluations of technical institutions and programmes according to specified norms and standards as recommended by AICTE.

Accreditation's main goal is to ensure quality assurance and control, frequently in relation to a certification system in the fields of education, training, testing, etc. This duty is carried out by a ministry of education agency in some nations, but it is carried out by a coalition of nonprofit organisations or professional associations in many industrialised nations. There is currently no institution in our nation that unifies the bulk of professional societies under one umbrella. However, there are a number of quality control (inspection) procedures in place, including university affiliation, acceptance by professional associations like the Institution of Engineers, and AICTE clearance for new and existing programmes. Accreditation will also ensure: (a) quality control (minimum standards) in HEIs, (b) accountability and transparency, (c) quality enhancement and (d) the facilitation of student mobility. Higher education's compliance with minimal standards for quality in terms of inputs, processes and results is ensured by quality control. There are concerns about quality owing to the higher education sector's rapid growth and the education provider's diversity. In order to maintain national development objectives and stakeholder interests, these basic standards urgently need to be checked.

In order to assure 'value for the money', or accountability through results evidence, stakeholders are encouraged to support accreditation, which is commissioned by a reputable and recognised body. Transparency in the way the higher education system operates is provided via the accreditation process. Through the certification process, deficiencies are found, allowing the system to adopt remedies and raise standards. Accreditation fosters competition, which contributes to higher quality. The reciprocal acceptance of credentials, which depends on the breadth of the certification, is crucial in the globalised economy and permits institutional, regional, national and worldwide student mobility.

However, there are several differences between the functions of inspection and accreditation that people always misinterpret; these are brought out in Table 2.

The academicians and other entities must answer and internalise the following questions in accreditation of higher education:

1. What are our goals, aims and objectives? Are they clearly stated? Are they useful? Why do we do what we are doing? Does consensus exist on the interpretation of goals, aims and objectives?
2. Is the programme designed in the context of the realisation of the goals?
3. Is the programme functioning properly? Are we monitoring and controlling the input, the process and the output?
4. Do we have the right performance indicators?
5. The outcome of the self-assessment must lead to improvements and, if necessary, to reformulation of the goals.

Table 2. Differences Between Recognition and Accreditation Processes.

Recognition	Accreditation
Performed before an institution is to be started	Performed after two batches have graduated
Fulfilment of initial conditions	Fulfilment of minimum norms of achievements and results
Assessment of promise	Assessment of performance
Largely based on physical, financial, and infrastructure resources	Includes availability and quality of human resources
Based on the project report	Based on information in self-assessment questionnaires that demand a clear articulation of mission and goals, and a SWOT analysis
Essentially a 'quantity' assessment	Essentially a 'quality' assessment
Reasonably straightforward	Much more complex
Decision: 'yes' or 'no'	Decision grading into three classes
Not a new concept	A relatively new concept in the Indian higher and professional education scene

Accreditation for Quality Assurance

The most popular technique for external quality assurance is accreditation. It is the result of a procedure by which a governmental, institutional or private body (accreditation agency) assesses the quality of an HEI as a whole, or a specific higher education programme course, in order to formally recognise it as having met certain predetermined criteria or standards and award a quality label. According to the institution's mission, the goals of the programme(s) and the expectations of many stakeholders, including students and professors, accreditation guarantees a particular degree of quality. A recognised status (yes/no, a score on a scale of 1 to 10, a letter grade and a score combined, an operating licence or conditional deferred recognition) is typically awarded as a result of the entire procedure. The following factors have made the adoption of accreditation desirable for quality assurance today:

1. The demand for recognised education is rising as higher education providers diversify more. Students, their families and the employment market are increasingly looking for ways to distinguish between different HEIs. This can be made simpler with a quality label.
2. Fraudulent providers might pose a threat to quality, among other sources. An institution's degree must be backed by a warranty. One way to offer that assurance is through accreditation.
3. In order to maintain the necessary standards that qualify graduates for admission to higher or more specialised institutions or for professional practice in the employment market, there is a growing demand for institutions that can accredit institutions. This demand is also increased by

the growing number of higher education providers and suppliers of fraudulent documents.

4. The world is becoming more and more competitive, which is posing a challenge for HEIs. In order to increase student mobility, they are interested in luring the top students and turning their credentials into a convertible currency, especially through credit transfer systems. Additionally, they have the capacity to develop into institutions of higher learning.

The Definition of Quality: Fitness for Purpose and Standard-Based Quality

The stakeholders in higher education are many and varied. Accordingly, the concept of quality also varies. We have identified 10 definitions of quality: providing excellence, being exceptional, providing value for money, conforming to specifications, getting things right the first time, meeting customers' needs, having zero defects, providing added value, exhibiting fitness of purpose and exhibiting fitness for purpose. The concept of quality has also evolved over time.

According to Gola (2023), quality as applied to higher education by the International Organization for Standardization (ISO) could be 'specifying worthwhile learning goals and enabling students to achieve them'. Specifying worthwhile learning goals would involve articulating academic standards to meet: (a) society's expectations; (b) students' aspirations; (c) the demands of the government, business and industry; and (d) the requirements of professional institutions. Enabling students to achieve these goals would require good course design, an effective teaching/learning strategy, competent teachers and an environment that enables learning.

The relevance (fitness of purpose) of higher education's mission and objectives for the relevant stakeholder(s) as well as the degree to which the institution/programme/course satisfies the mission and objectives (fitness for purpose) are factors in its quality. The standard-based approach to quality refers to how well an institution, programme or course satisfies the minimum standards established for inputs, procedures and outcomes. Evaluation or assessment of various subsystems and component processes is the fundamental step in the accreditation process. There are two parts to it: critical self-assessment and external peer review, where the former is performed by the faculty as a part of the support materials and, if carefully and effectively done, can be a valuable strategic tool. The proposed process is depicted in the following figure 1.

The major objectives of the teaching-learning process are as follows:

1. To constitute a centre of excellence to impart quality education.
2. To provide /industry, academically empowered and ready-for-the-job professionals in diverse fields to the society.
3. To empower research and dissipate research findings for the all-round development of the nation and community at large.

4. To facilitate and contribute to nation-building by generating a pool of human resources trained in science, technology, humanities, management, education and research.
5. To maintain dynamic equilibrium between the various educational institutions and the economic, socio-cultural and ecological environments.

Tables 3 and 4 summarise the quality policy and quality services at various levels and their implementation. Table 5 shows the action plans and institutional strategies at various operational processes. Table 6 showcases the institute interaction with all its stakeholders. All of these help in building institutional leadership.

Table 3. Quality Policy at Various Levels and Plan of Implementation.

S. No.	Level	Quality Policy	Plan of Implementation
1.	Top management	Maintain high standards in imparting education	1. Setting objectives relevant to policy 2. Hiring quality professional to fill faculty positions 3. Rewarding competitively 4. Ensuring minimum attrition
2.	Principal	Motivate and monitor a team of competent faculty	1. Setting up rules and regulations for the institution, (b) identifying and hiring, (c) induction and (d) managing performance 2. Evolving a salary structure suited to the industry 3. Generating higher job satisfaction through incentives 4. (a) Team building, (b) faculty development programmes, (c) participatory decision-making, (d) transparency in administration and (e) collective responsibility
3.	Faculty	Absorb the spirit of institutional values and maintain efficiency	1. Maintaining uninterrupted work schedules 2. Imparting quality education 3. Trying out various techniques in pedagogy 4. Timely examinations and fair assessment 5. Maintaining satisfactory student interest

Table 4. Quality Services at Various Levels and Plan of Implementation.

S. No.	Level	Quality Services	Plan of Implementation
1.	Top management	Provision of infrastructure and facilities suitable for effective services	1. Providing appropriate building, equipment, etc 2. Encouraging utilisation of the facilities to optimum levels 3. Catering to further requirements as per needs
2.	Principal	Ensure availability maintenance of improved infrastructure and services	1. Preparing inventory of infrastructure requirement 2. Ensuring availability of the required resources 3. Utilising of resources optimally 4. Evolving better man management practices 5. Introducing both conventional and innovative tools for operationalising services 6. Training and development
3.	Faculty	Integrate individual interest and institutional interest in offering services	1. Adhering to regulations and fulfilment of requirement 2. Developing a suitable pedagogy 3. Utilising of library as a knowledge resource 4. Ensuring self-development through continuing education 5. Providing support services to maintain core services

Proper support is required for policy and planning through need analysis, research inputs and consultations with the stakeholders for building institutional leadership. The institutional leadership supports the faculty by providing adequate funding and by creating policies that are appropriate for addressing the needs of students, including those related to admission, attendance at classes, following the curriculum, writing exams and earning high marks, preparing for competitions, overcoming obstacles, landing a job and advancing in their careers. It also helps faculties develop appropriate policy to deal with societal issues by engaging in research activities and inputs, and coming up with solutions that best address issues in business, information and communication technology, management and social work. By comprehending the changing demands of the job market, adjustments to the curriculum and provision of consulting services, it also aids in the development of appropriate policies to solve the sector's most pressing problems. The institutional leadership is responsible for strengthening the excellence culture by establishing spiritual forums, literary forums, yoga and mind control programmes, training sessions and personality development programmes, academic pursuit

Table 5. Action Plan and Institutional Strategic Plan at Various Operational Processes.

S. No.	Operational Processes	Action Plan	Institutional Strategic Plan
1.	Admission	Ensuring full admission	Maintaining equality of opportunity through religious and linguistic groups
2.	Education and teaching curriculum	Ensuring quality education	Effective teaching-learning processes, adding to innovations and best practices
3.	Placement	Ensuring job opportunity for everybody	Introducing skill building and certification programmes
4.	Personality development	Providing co-curricular and extra-curricular activities	Value addition
5.	Adminis-tration of services	Providing effective support services	Adoption of time saving and error-free newer technology in office automation
6.	Social re-sponsibility	Involving students in social activities	Operationalisation of institutes own service-based NGO-SIRRA

Table 6. Interaction with Stakeholders.

S. No.	Stake Holders	Ensuring Involvement
1.	Management	Continuous feedback and consultation
2.	Parents	Regular meetings and contact
3.	Students	Classes and activities
4.	Alumni	Meetings and suggestions
5.	University	Responding to requirement
6.	Industry	Placement and projects
7.	Government	Compliance to regulations
8.	Community	Public relations

through research centres and reinforcing discipline. Departmentalisation, decentralisation, information exchange, technology development, infrastructure development, the admissions process and academic leadership are all aspects of institutional leadership involved in institutional change.

Procedure Adopted for Institution Building

Procedures are set by an institution to periodically review and evaluate the effectiveness of the institution's plans and policies for effective implementation. To monitor and assess the institute's plans and policies, the following techniques are used:

1. **Students:** An institution's policy is to develop useful, employable and productive citizens by offering top-notch instruction and training. The institution offers a range of courses to meet the needs and interests of its students and to help them find jobs quickly. In all courses, competent, trained and experienced faculty members teach, administer exams, gauge students' ability and offer encouragement for further development. In addition to this, a variety of certification programmes are available to the students to help close the gap between the classroom and the workplace.
2. **Teaching faculty:** The policy of an institution is to identify, attract, motivate and maintain a team of quality professionals who would play a key role in building high calibre students. In order to attain this, the institution ensures that its personnel are appropriately identified, compensated and retained. Faculty members are oriented with required responsibility and accountability to perform their task successfully. They are also trained to enhance the teaching ability evaluated through appraisal and feedback from the students.
3. **Non-teaching faculty:** An institution's support staff is concentrated on improving their services and increasing the satisfaction of both the teaching faculty and the students. They receive training in computer usage and efficient office management techniques in order to do this, and their performance will be assessed by routine interactions with the staff, the collection of self-appraisal reports and the input from the office manager.
4. **Institutional:** An institution of higher learning is dedicated to upholding high standards in the education it provides while supporting the values of secularism, diversity, inclusion and integration. A college retains a diverse academic and student body representing all linguistic, religious and cultural groups. There are enrolled students from all across the nation, and the courses provided offer a wide range of employment opportunities. The institution's primary focus is on teaching and learning, but it also places a high priority on the students' overall development by encouraging co-curricular, extracurricular, social service and research programmes.

The academic leadership provided to the faculty by the top management are as follows:

1. **Set standards:** The faculty members are allowed to constitute desired levels of knowledge and prepare the students accordingly.

    a. In teaching: The faculty uses varied and appropriate methods as per the choice of the situation.
    b. In assessment: The faculty conducts periodic assessment through internal examinations, assignments, presentations and seminars.
    c. While taking attendance: The faculty maintains the attendance of each student on a regular basis and ensures that the students maintain the minimum required level of attendance through reducing absence, late comings and dropouts.

   d. Inspiring other's through setting an example: The faculty strives to maintain a high profile so as to become role models for the students.

2. **Measuring performance:**

   a. Periodic examination: The performance of the students is evaluated through periodic internal examinations.
   b. Involving in activities: Students are involved in all activities that promote their growth and development.
   c. Feedback-based improvement: Students are given feedback on their performance and motivated to improve.

3. **Enforcing discipline:**

   a. Preparing and providing guidelines: The faculty prepares guidelines on the dos and don'ts inside and outside the class rooms following the regulations provided in the college colander.
   b. Enforcing effective control: Late coming, disobedience, bad habits etc. are discouraged.
   c. Monitoring and control: The faculty actively participate in the disciplinary committee as well as providing counselling services.

4. **Imbibing values:** The value system of an institution as reflected in the vision admission of the institution is translated into action through imbibing values among the students.
5. **Character formation:** The faculty members who works closely with the students to influence their character formation such as gender sensitivity, religious tolerance, linguistic and geographical integration, and moral integrity.
6. **Personality building:** Provision of skill development programmes that will be offered in addition to regular classes that would build their capacity for communication, language comprehension, self-esteem, emotional intelligence, dignity and appeal.

Leadership, Governance and Accreditation

In order to fulfil the institution's vision, mission and goals as well as to create a positive institutional culture, leadership through defining values and a participatory decision-making process are essential. The institutional efforts to realise its vision are reflected in the formal and informal procedures to coordinate academic and administrative planning and implementation. The institution's goal for the duration of the strategic plan is outlined in the vision statement. The specific traits or qualities that will characterise the institutions in their idealised state are outlined in vision statements. The vision statement is regarded as attainable and is used to motivate and inspire. A purpose statement is all that the mission statement is. It explains in one or two sentences what the institution seeks to accomplish, why it exists and what ultimate result should be expected. Language in the mission statement is usually expressed using verbs in the infinitive (to increase, to improve, etc.) and also should identify any problems or conditions that will be changed.

Gap analysis is a procedure to assess the ‘gap’ between the institution’s current status and specific features of the vision of the institution. It also identifies what actions need to be taken to close the gap and can be studied through SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis. SWOT is used as a framework for the environmental scan.

The process enables planners to provide more information to support the gap analysis of the strategic plan’s activities that must be implemented to help the institution achieve its vision. The environmental scan gathers data that is generic in nature and gives planners at the institution a shared understanding of trends and challenges for the future so that they can create a vision. The environmental scan serves as the foundation for institution-wide future-focused conversations. Unless those tendencies are observed to be developing into greater problems, a good environmental scan does not attempt to produce thorough data or market research, and it does not employ projections based on present trends. The institution’s vision is informed by the scan, which also identifies the broad strategic goals that will serve as a road map for an action plan. The internal environment and the external environment are the two main parts of an environmental scan. Both should be investigated to see if institution members share a common outlook on the future and what resources they think they have or will require going forward. To meet the necessary social commitment, the higher education sector must protect the interest of its consumers (i.e., students, employers in government and industry, society at large and also the institutions themselves). This phenomenon has generated a growing concern worldwide regarding the quality of higher education inputs, processes and outcomes. Now, new quality assurance systems are emerging to facilitate the HEIs. The following section clarifies what we mean by quality.

Institutional Strategy to Groom Leadership and Governance

Institutions can also inculcate different levels of leadership in students as well as in teachers as shown in Tables 7 and 8. The various ways of inculcating the leadership at the student level is given in Table 7 and at the faculty level in Table 8. Table 9 shows how departments of an institution can work towards an effective decentralised governance system.

From the above sections, it is evident that the necessity to guarantee the quality of higher education has increased as a result of HEI expansion, privatisation and globalisation. Measurable outputs are produced as a result of the accrediting procedure. Many worldwide ranking bodies further assess the outcomes/results. National Institutional Ranking Framework (under the ministry of HRD, Government of India) conducts a ranking survey each year. The accreditation and rankings support HEIs’ efforts to promote a culture of research and innovation, publish research findings in peer-reviewed journals, and participate in conferences and workshops with research papers. Regular external expert evaluation of diverse processes and outcomes yields quantifiable results from such actions. Parents and students feel more secure knowing that the degree has some worth. This leads to

Table 7. Grooming the Leadership at the Student Level.

S. No.	Levels of Leadership	Various Ways of Grooming Leadership
1.	Academic leadership	1. Teaching oriented to catering the needs of high achievers 2. Time-bound assignments and presentations with strict adherence to quality 3. Use of library and technology as a learning resource 4. Exposure to industry 5. Interaction with experts and visiting faculty 6. Participation and presentation in conference, seminars and workshops 7. Periodic internal assessment and examinations
2.	Programme organising leadership	1. Formulating programmes that suit requirements of growth 2. Articulating roles and responsibilities 3. Participatory decision-making 4. Involving in implementation 5. Working in teams 6. Sharing, collaborating and contributing 7. Accepting feedback and improvements 8. Corrective actions and learning
3.	Sports and games leadership	1. Developing sportsman spirit 2. Encouraging participation 3. Coaching 4. Learning to accept failures 5. Reviving ambitions 6. Mustering courage 7. Winning for team and establishing fame
4.	Cultural activities leadership	1. Identifying talents 2. Practicing trails 3. Organising events 4. Promoting participation 5. Extending appreciation 6. Rewarding 7. Developing quest for perfection

an improvement in student success, including the achievement of learning objectives, graduation rates, greater career advancement through credit transfer and increased employability. Industry–academia tie-ups strengthen the curriculum to cover the gap between employment available in the market and skills obtained by the students. Accreditation procedures have an impact on the curriculum, instructor quality and the evaluation of learning outcomes. In reality, practically all accrediting processes now include these as necessary criteria.

Table 8. Grooming the Leadership at the Faculty Level.

S. No.	Levels of Leadership	Ways of Grooming Leadership
1.	Career	Providing adequate opportunity
		Entrusting responsibility
		Creating confidence
		Building skills
		Upgrading knowledge
		Encouraging research activities
		Attaining job satisfaction
		Excelling in career

Table 9. Departments of the Institution and Work Towards the Decentralised Governance System.

S. No.	Department	Delegating Authority and Operational Autonomy
1.	Business management	1. The department has a course co-ordinator who receives instruction from the head of the institution and reports. 2. There are separate course coordinators for UG and PG programmes. 3. Faculty has opportunity to choose the subject to be taught in each semester every year. 4. Faculty in-charge of the subject prepares the teaching plan corresponding to the paper. 5. For each specialisation, there is a faculty coordinator. 6. Planning teaching-learning tools such as the preparation of the time table and allocation of papers is done in consultation with an individual faculty. 7. Teachers are in-charge of forum activities of students. 8. Class teachers are designated for all classes. 9. There are student co-coordinators for each specialisation. 10. Preparation of the academic calendar based on the time frame set by the university for planning and organising activities is done by course coordinators. 11. Planning industrial visits, forum activities, guest lectures and initiation of project proposals are done by course coordinators in consultation with specialisation coordinators. 12. Staff meetings are conducted by course coordinators regularly. 13. Each faculty expresses his or her views in staff meetings. 14. Forecasting annual events that contribute to student development is done by the head of the institution together with course coordinators. 15. Matters such as conducting internal exams are decided collectively in staff meetings. 16. Faculty makes independent assessment of student performance. 17. Students have freedom to give feedback and suggestion on faculties.

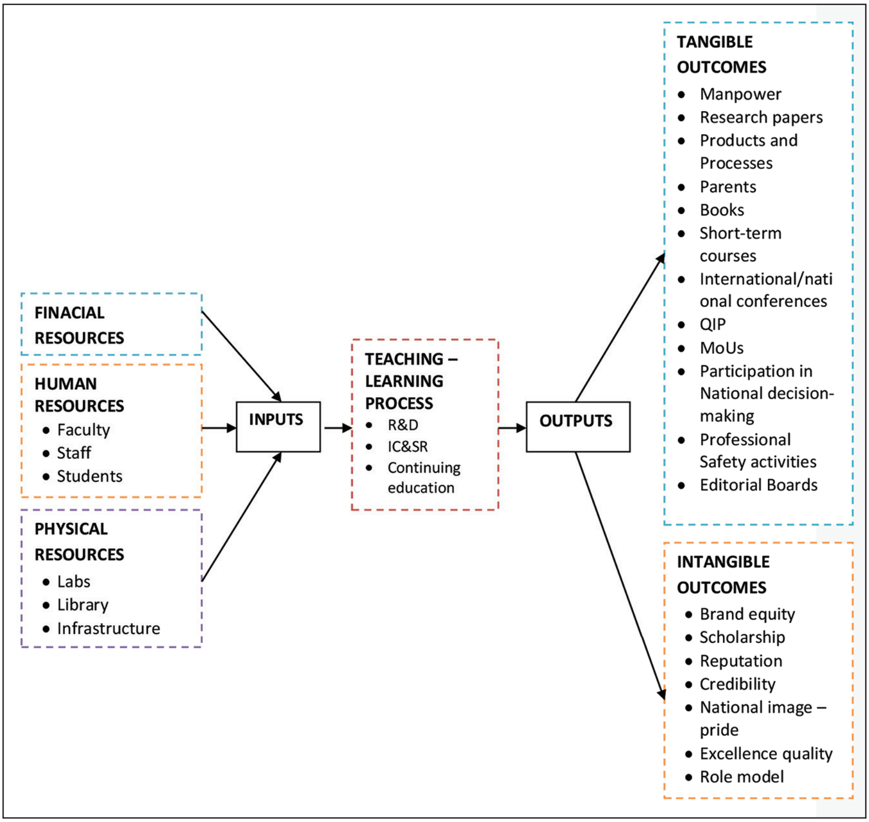

Figure 1. Input–Output System in Educational Institutions.

Conclusion

The service division has adopted the idea of quality from the manufacturing strategy. It is interesting to note that there is a significant rise in demand for quality and excellence in the service sector. Numerous researchers have used various models to define the term ‘excellence’. Stakeholder satisfaction, attainment of learning objectives and student success are common elements in all models. Accreditation is seen as a tool for enabling high-quality education, a means of enhancing non-academic services, system transparency and establishing accountability at the proper levels. Advantages of accreditation are evident in the credit transfer of students from one accredited institution to another, the higher acceptance of degrees for further study around the globe, comparisons with other institutions and adoption of best practises, ongoing process improvements, the availability of funding, etc. Effects on these factors are interconnected and may require rethinking how HEIs operate. Thus, we can conclude that, reinforcing the culture of excellence through participatory leadership of all stakeholders at every level, the objectives of accreditation and quality assurance can be achieved. Good governance and institutional leadership can play a key role in ensuring quality in higher education. Regular workshops for faculty members are organised to update them about the recent trends in teaching, learning and other professional needs, reinforcing the culture of excellence. Senior leaders and educators who have taken part in national and international consultations on education are in a position to support the culture of excellence and are able to recognise developing societal requirements and respond to them through institutional interventions. Any programme must undergo a feasibility study before being implemented. Regular gatherings at various levels guarantee that the infrastructure and instructional resources are upgraded to handle the dynamically shifting educational environment. By including the faculty and students in a variety of activities, the institute fosters a culture of participative management. The management of facts, information and objectives serves as the basis for all institutional choices. It was permissible for both students and faculty to express whatever ideas they had for enhancing the institute's excellence in any area. To ensure the smooth and organised operation of the institute, the principal, course coordinators and staff members are involved in defining the policies and procedures, framing guidelines and rules and regulations pertaining to admission, placement, discipline, grievance, counselling, training and development, and library services, among other things, and effectively implementing the same. As a result, the institution's vision, mission and goals are in line with the aims of higher education in order to ensure the quality of higher education through accreditation. The governance of the institution is reflective of an effective participatory leadership. Decentralisation and participative management are employed by the institution. In addition to engaging with stakeholders, the institution develops its strategic planning. The institution keeps an eye open and assesses its plans and policies. The institution needs to be involved in developing leaders at all levels. The management of facts, information and objectives serves as the basis for all institutional choices. The accrediting criteria/standards clearly describe the fundamental requirements for faculty staff, workload, academic pursuits of professors and students, curriculum updates, learning outcomes, industrial ties, etc. Numerous policy guidelines are created and implemented for the academic and administrative operations of HEIs as a result of accreditation. However, there is a need for a common holistic excellence framework for HEIs because there are numerous accrediting bodies available at the institutional and programme levels, each with their own standards/criteria and hundreds of compliance formats. The need for numerous criteria and essential characteristics for establishing excellence in higher education institutions will be met by that one common model or framework that can be future focus of the research.

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Article

Corporate Social Responsibility Initiatives During COVID-19: A Study on the Indian FMCG Sector

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Abstract

The research aims to study the Perceived consumer and CSR initiation taken by the organization and their influences on Brand loyalty. The study combines Carroll's CSR pyramid theory and Ovidiu's brand loyalty multidimensional model. To test the relationship between CSR and brand loyalty, especially the research intended to test the two-dimension legal and ethical aspects of Carroll's model out of four which represents the consumer perceived CSR, with the SEM method, the relationship between CSR and brand loyalty is tested. The study did two things: reviewed the FMCG initiative taken by top FMCG. And then adopted purposive sampling of 10 Indian-listed FMCG sectors and collected data through an online Google survey during the pandemic period from September 2020 to May 2021; the study got 450 valid responses. The role of corporate social responsibility creates brand loyalty is confirmed. Research also found that consumers are more attracted to the legal and ethical responsibility of the organization. The research implies a marketing strategy for gaining brand loyalty. The findings project that event marketing, media marketing, and customer loyalty programs can create more effective CSR programs, and greater satisfaction with a product will make repeated purchase behaviour among customers.

Keywords

Brand reputation, corporate social responsibility, COVID-19, FMCG, Pandemic

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Introduction

CSR is a compulsory act, but few organizations do it with pure intention and are socially liable. This act will bring consciousness to the organization, from product design to the impact they create among society and stakeholders. According to Carroll, CSR will benefit the organization, environment, and culture.

According to Chen et al. (2020), when an organization adopts CSR, it will become more conscious of creating a positive impact on its society and community. CSR will help both organizations as well as organizations. When it comes to organization, it will enable owners to get economic benefits through indirect brand promotion and attract employees by creating a strong bond by involving them in CSR activities and making them feel responsible and emotional satisfaction (Chen et al., 2020). But some organizations have pressure to do or show as they do the CSR act because of Government and stakeholder pressure.

In recent years CSR has gained a lot of interest in India. After CSR is made compulsory, all the industries giving a significant contribution, especially Fast-moving consumable goods, have contributed more than 110 crores towards CSR in education, health, rural areas, etc. Abraham et al. (2019) also view CSR as a marketing tool because of the attitudinal factor of consumers seeking socially responsible products (Harjoto et al., 2017). The research will review past reviews on how CSR initiatives will create brand loyalty; in practice measuring brand loyalty is complex CSR and brand loyalty is multidimensional. So the research reviews CSR with legal and ethical acceptance and brand loyalty as Satisfaction recommendations and repurchases (SRR) (Moisescu, 2015). Only a few studies explored the CSR context in India, especially in a pandemic situation; the research emphasizes the importance of empirical CSR analysis in the Indian context (Min Foo, 2007). After gaining tremendous interest in the CSR context, a few questions and dimensions remain unanswered; for instance, the linkage between CSR dimensions like ethical and legal initiatives and their impact on brand loyalty will create the organization's interest and ideas on how to improvise and maintain the CSR activities. Therefore the research will fill the gap by doing empirical studies. The main objectives of the present study are—To review various CSR initiatives taken by the top 10 Indian-listed FMCG companies during a pandemic.

To examine whether corporate social responsibility positively impacts consumers and creates brand loyalty.

Literature Review

CSR History in India

Even before CSR, businesses in India have participated in social activities. Tata has proven a socially responsible company by contributing to the public welfare, promoting them as honest citizens, and bringing in a challenging debate among other organizations that can perform the business by doing well for society. Before the evolution of the Companies Act in India, it was believed that every organization had a moral value to play towards society invariable to the financial structure of an organization. Later the concept of trusteeship gained massive attention among Indians, which meant helping economic growth (*The Economic Times*, 2010).

Later, Amul dairy farm founder Dr Kurian played a vital role in improving society by allowing farmers to enhance their incomes. At the same time, he increased the economic condition of the business. Indian Oil played a vital role in being socially responsible toward society. Even before the CSR concept was introduced, an organization's goal of enhancing people's lives and protecting the environment in 1964 (Shyam et al., 2017 later CSR gained significant attention to creating shareholders value, indirect brand benefit, gaining the attention of the local community. CSR has become more of a strategic marketing tool than benefiting a stakeholder (Brown, 2001).

Changing Trends in CSR

The term changing trends refers to before and after CSR actions; if the organization carry any responsible act towards society, it is called a charitable or philanthropic activities. But now, it is termed *Corporate Social Responsibility* (Shyam et al., 2017), and the business's stakeholders are totally overseen, so CSR does not create an add-on value to the organization (Yang et al., 2020). CSR has evolved from giving as charity or acting as responsible to strategy. A study from past literature says CSR gradually deviates from the pure intention of giving toward society to capture the market and stakeholders (KPMG, 2010).

CSR Initiatives by Indian Companies During the Pandemic

A pandemic is a unique situation because, in a pandemic, there is an eruption of diseases in the country. Given the unusual situation, the Government resources and equipment are not enough to manage the pandemic. So the organization, public and private bodies, and wealthy individuals have taken the responsibility to fight against the novel coronavirus (CSRBOX, 2020). This has even encouraged the corporate players to step into the fight against the pandemic situation. The Companies Act 2013 is modified to promote corporate bodies. The Ministry of Corporate Affairs (MCA) issued a notice, any activities which are connected with healthcare, disaster management, and sanitation is considered CSR, which comes explicitly under item one and nine under schedule seven; many had confusion and clarification to clear this MCA left a second notification, which clearly stated in Table 1 (Rajani & Issac, 2020).

Various industries played a significant role in contributing to CSR after the Government announced to fight against pandemics will qualify as CSR activity. Most enterprises have chosen to donate PM care funds and prevent hunger and health problems. This activity is ethically and morally right; some industries inferred

Table 1. Acceptable CSR Circular by Indian Minister of Corporate Affairs.

The contribution made to PM Cares Fund	The gift was made to 'Chief Minister's Relief Funds' or 'State Relief Fund.'
The contribution made to State Disaster Management Authority	Payment of salary/wages to employees and workers, including contract labour, during the lockdown period.
Spending of CSR funds for COVID-19-related activities under items no (i) and (xii) of Schedule VII of Companies Act, 2103	Payment of wages made to casual/daily wage workers during the lockdown period.
Payment of ex-gratia to temporary/casual/daily wage workers	–

Source: Rajani and Issac (2020). https://www.mondaq.com/india/coronavirus-covid-19/944738/csr-amidst-covid-19

the MCA circular in a way that would indirectly benefit their organization. The research reviews the top 10 listed FMCG companies' CSR initiatives during COVID-19. FMCG is India's fourth-largest sector in the Indian economy, providing food, beverages and personal care (elearnmarkets, 2019). Following are the top 10 FMCG sector CSR performances during COVID-19 (refer Table 2 and Figure 1).

Many organizations slightly deviate from the Government structured CSR, but still, it is morally acceptable. All the consumers are starting to look at the product—from price range to satisfaction. They also have an attitudinal factor, a socially responsible product. Active CSR provides a business with supremacy, creating a unique bond among consumers, and ensuring long-term loyalty and brand support (Rey-Area et al., 2020).

Opportunity and Challenges of CSR During the Pandemic

The pandemic allowed the organization to connect and create market visibility for them. They used the situation, showed their stakeholders that they stand and support something, and proved that their business is more than just making a profit. The pandemic created an opportunity for corporate players to gain actual consumer interest by using real-time situations; CSR will work great in realistic conditions (Krider & Huerter, 2020).

Some of the Challenges for CSR to Perform During COVID

Business model changes: Some Non-core businesses have started to support the situation and made COVID-19 essential to fight against the novel coronavirus because the position required quick responses from companies and individual bodies. This could be a more significant risk for non-core businesses because they

Table 2. Top 10 Listed Indian Fast-moving Consumer Good CSR Initiatives.

Organization	CSR Initiatives
HUL	The company donated worth 100 crores which was spent on various health care by providing one lakh soaps to numerous states, eradicating hunger and providing PPE kits among frontline workers.
Nestle India	Nestle spent 15 crores, on healthcare, and sanitation.
ITS	ITC played a more significant role which spent about 150 crores fighting against the pandemic.
Britannia Industries	Britannia spent 28 crores under various vulnerable areas, such as environment, safety, health, sanitation and PM care act.
Dabur India	Labours took the upper hand to address the pandemic immediately. It donates about 21 corners of which 11 crores is given to Prime Minister Care u=fund as an emergency fund and provided daily meals to needs, provided PPE, and masks for frontline workers.
Godrej Consumer Products Ltd	Godrej spent 50 crores towards an emergency fund.
Marico Ltd	Marico Limited commits five lakh masks to frontline COVID-19 warriors.
Colgate Palmolive	Contributed to PM CARES.
Procter and Gamble Hygiene	P&G spent about 50 crores and took initiated in providing five lakh free vaccines for Indian citizens, the brand also collaborated with Government and individual bodies to address the situation, and various awareness programs to break a COVID chain reaction were taken. Additionally, 15 lakh masks and 35 lakh donations are made towards the PM fund for more than 35 lakhs of health, hygiene, and cleaning products 15 lakh masks in the country's fight against COVID-19.
Gillette India	Recently donated its inventory of 75,000 N95 respirator masks to hospitals, and distributed more than 100,000 face shields.

Figure 1. Top 10 Indian FMCG Performances During the Pandemic.

Source: NSE MINT research.

lack knowledge of effectiveness and efficiency, which can turn unworkable in an emergency; this is life-threatening and creates brand damage.

Inequalities in supply chains: In more prominent organizations, in the name of cost-cutting, CEOs reduced their salaries, paid employees, and cut down the backorder from small companies; this will cost the retailers in the longer run.

Prioritizing the vulnerable: The vital need for the situation is support for education, mental health, and hunger. The significant corporate player should take the initiative in this vulnerable area to find the most vulnerable. After the crisis, the corporate can rebound on the structured CSR initiative.

Corporate social responsibility and brand loyalty: Carroll's (1991) is the most popular model, which mentions that CSR has four dimensions which are legal, ethical, economic and philanthropic. All these relations are associated with either organization employees or stakeholders. Maignan (2001) argues CSR must be approached multidimensional to create a connection with stakeholders and consumers.

The research adopted the consumer's CSR because consumers are the largest stakeholder in the organization. Further, the study focuses on CSR's ethical and legal responsibility and the justification for selecting the legal and moral responsibility. There are four dimensions in Carroll's CSR. The first economic dimension that defines the organization's profitability is only employees are concerned with this dimension. Philanthropic (Cudmore & Hill, 2006) Argues philanthropic activities are negatively significant to the consumer because the development money is spent on the society at large, reducing the production function, new market entries, etc. (He & Lai, 2014).

Whereas an organization's legal responsibility limits the activity within the organization, this legal behaviour of the firm will improve and reflect on the product's quality and function. An organization's ethical responsibility refers to a natural positive characteristic of the organization like being honest with consumers; it also relates to environmental protection, good benefits for employees, and relationships with vendors and suppliers, according to Baum et al. (2001). The consumer believes the organization involves legal and ethical responsibility and is considered an important aspect. Therefore, the research adopted a legal and ethical CSR dimension in an empirical study.

Brand loyalty is multidimensional (Ovidiu-Constantin et al., 2010). The research adopted brand recommendation, brand repurchase, and brand satisfaction and the aim of consumer perception. CSR aim to gain loyalty among consumers therefore

H_1: There is a significant relationship between legal and ethical CSR toward brand loyalty.

Research Methods

Research Structure

The research discovers the relationship between CSR legal and ethical responsibility and brand loyalty by adopting Carroll's 1991 model; then, a

Figure 2. Carroll's CSR Pyramid Model.

Source: Carroll's (1991), figure explains CSR dimensions.

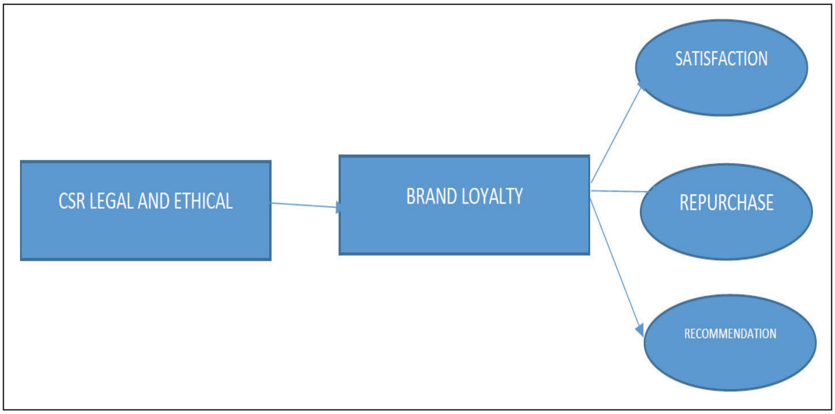

Figure 3. Structural Model and Hypotheses.

Notes: Figures explain the relationship between CSR (corporate social responsibility) and Brand Loyalty. Independent variable-CSR, Dependent variable – Brand loyalty (Dimensions of brand loyalty – Satisfaction. repurchase, recommendation). *p*-value is ***, GFI −0.954, AGFI 0.926, CMIN −3.56.

conceptual framework is developed (refer Figure 2 and Table 3). He and Lai (2014) define CSR as ethical and legal responsibility with a function and symbolic attitude that creates perceived CSR attention and brand loyalty. According to Ovidiu et al. (2010), brand loyalty is a holistic approach and a novel finding during the pandemic situation in the multidimensional study (refer Figure 3).

Table 3. The Scale Used for the Study Measurement of Corporate Social Responsibility and Brand Loyalty During Pandemic in India.

Concept Measured			Scale Items	Author
CSR dimension	CSR ethics	q1	The brand delivers authentic and comprehensive information about its products.	Wagner and Bode (2008); Turker (2009); Brunk (2010); Öberseder et al. (2014)
	CSR ethics	q2	Charges reasonable rates for its products.	Wagner and Bode (2008); Brunk (2010); Öberseder et al. (2014)
	CSR ethics	q3	Delivers harmless products which do not intimidate the physical or mental well-being of buyers.	Wagner and Bode (2008); Öberseder et al. (2014)
	CSR legal	q4	Fully obeys the law in conducting its activities.	Maignan (2001); Salmones et al. (2005); Wagner and Bode (2008)
	CSR legal	q5	Brands abide by the law and avoid corruption with the state.	Wagner and Bode (2008)
Brand loyalty dimension	Brand Satisfaction	q6	I have brand satisfaction.	Ovidiu-Constantin et al. (2010)
	Brand satisfaction	q7	I am satisfied with the brand's social activities.	Ovidiu-Constantin et al. (2010)
	Repurchase	q8	I will purchase the socially responsible brand even if the price is slightly higher.	Ovidiu-Constantin et al. (2010)
	Recommendation	q9	I will recommend the brand to others.	Ovidiu-Constantin et al. (2010)
	Repurchase	q10	I will repurchase the brand.	Ovidiu-Constantin et al. (2010)

Sampling

The study adopted the purposive sampling method, primary data collection and was collected through Google questions. The data was collected during the COVID period from September 2020 to May 2021. During this period, India faced the second pandemic wave, and the study collected 450 samples.

The demographic profile of respondents (refer to Table 4) is asked to consider only the pandemic situation while answering the question; 450 valid responses were collected.

Table 4. Demographic Profile of the Respondents.

		Frequency	%
Gender	Male	207	46.0
	Female	243	54.0
Age	15–25	90	20.0
	26–35	154	34.2
	36–45	87	19.3
	46–55	91	20.2
	Above 56	27	6.0
Education	School level	21	4.7
	Graduate	164	36.4
	Postgraduate	189	42.0
	Other education	76	16.9
Occupation	Student	50	11.1
	Employee	182	40.4
	Housewife	44	9.8
	Services	68	15.1
	Business	15	3.3
	Professional	66	14.7
	IT professional	25	5.6
Income	Below ₹15,000	113	25.1
	15,001–30,000	93	20.7
	30,001–45,000	62	13.8
	45,001–60,000	31	6.9
	Above 60,000	151	33.6

Research Findings and Discussion

Reliability and Validity Analysis

Confirmatory factor analysis is used to estimate the scale validity and reliability constructs where tested. All the factor loading is above 0.5 (refer to Table 5). Other indicators are RMSEA 0.071, CFI 0.975, and all the values are above 0.7 in Cronbach's, which is significant according to (Nunnally, 1978).

Discriminant validity is used to test the latent variable. Suppose the discriminant value is greater than the correlation value. In that case, the value is said to be significant AVE for CSR is 0.5, Brand loyalty is 0.6, the correlation between CSR and brand loyalty is 0.47, and the discriminate value is more important than 0.7; hence valid (Fornell & Larcker, 1981), refer Table 5.

Table 5. Structural Model Reliability and Convergent Validity.

Item Code	Cronbach's > 0.7	Loading > 0.5	AVE > 0.5
CSR1	0.844	0.740	0.52604
CSR2		0.730	
CSR3		0.79	
CSR4		0.7	
CSR5		0.660	
BL1	0.877	0.680	0.61884
BL2		0.880	
BL3		0.810	
BL4		0.770	
BL5		0.780	

Table 6. Measurement Instrument: Discriminant Validity.

	CSR1	CSR2	CSR3	CSR4	CSR5	BL1	BL2	BL3	BL4	BL5
CSR1	0.761									
CSR2	0.777	0.856								
CSR3	0.622	0.785	0.951							
CSR4	0.542	0.655	0.622	0.847						
CSR5	0.482	0.673	0.542	0.785	0.896					
BL1	0.444	0.421	0.421	0.655	0.654	0.901				
BL2	0.325	0.414	0.414	0.673	0.542	0.752	0.907			
BL3	0.258	0.444	0.325	0.421	0.421	0.542	0.785	0.89		
BL4	0.222	0.325	0.258	0.414	0.414	0.421	0.655	0.67	0.861	
BL5	0.321	0.258	0.421	0.325	0.325	0.414	0.673	0.42	0.741	0.862

The indicator loadings are compared with their cross-loading values to test the discriminant validity (Hair et al., 2011). Table 6 presents the results obtained in the study.

The discriminant validity was assessed using Fornell and Larcker's (1981) DV is greater than the correlated value.

SEM Analysis

The research adopted a strong maximum likelihood method to test the structural equation model. The result confirms the model with an acceptable fit.

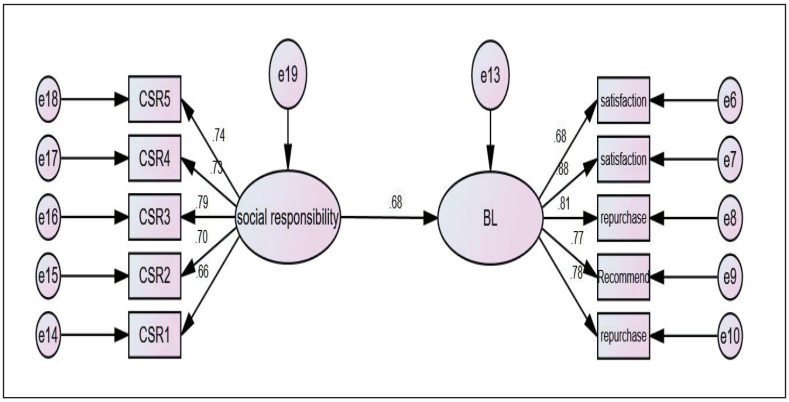

Figure 4. Estimated SEM Model.

Hypothesis Testing

Structural Relation	Standardized Coefficient	*p*	Accepted//Rejected
CSR1F86ABL	0.68	***	H1:Accepted

Corporate social responsibility creates a positive relation in building brand loyalty, especially in the period of COVID; the model confirms the consumer perceived CSR is likely to see a legal and ethical dimension of CSR which will provide a benefit in product development and new market entries (Baum et al., 2001). Brand loyalty is an attitudinal and behavioural acceptance of a consumer, which has repurchase behaviour, recommendation by WOM and satisfaction (Ovidiu-Constantin et al., 2010).

Relation between corporate social responsibility with brand loyalty (satisfaction, recommendation, and repurchase) (refer Figure 4).

Conclusion

Research Discussion

There are various studies suggesting that corporate social responsibility positively influences brand loyalty. The research bridged the gap on what extended perceived Consumer CSR dimensions, such as legal and ethical dimensions, impact brand loyalty. Second, various studies have taken place in Western countries. The study has chosen Indian FMCG customers. Finally, the study is Novel in two ways—first, the research is done during the period of COVID-19. Second, the study combines two theories, Carroll's and Ovidiu's. There is no previous evidence of the same research traced; finally, the study adopted both attitudinal and behavioural dimensions (Ovidiu-Constantin et al., 2010).

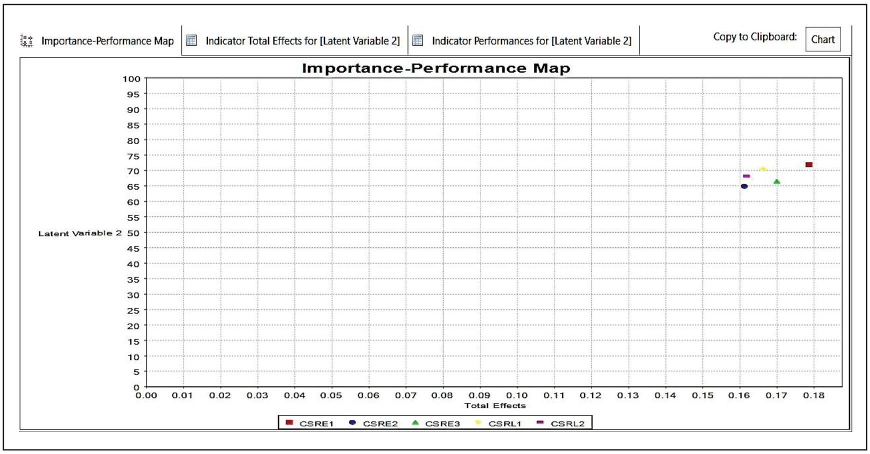

Figure 5. Important Performances Analysis.

Our finding recommends that legal and ethical phenomenon is vital for developing consumer loyalty. In India also legal and moral responsibility of an organization plays a crucial role in gaining customer satisfaction; they will recommend the product through word of mouth. It will create repurchasing behaviour among consumers; even before the compulsory responsible act took place in India, the countries believed in Gandhi's trusteeship, so ethical and legal responsibility is a basic expectation of any consumer (Lee, 2009). Therefore a company which adopts a moral and legal mechanism will gain more loyal customers.

Research Implication

The research finds that customers are more attracted to an organization's ethical acceptance. CSR will work better when the initiation is realistic. The pandemic is an opportunity for an organization to gain loyal consumers. Managers can also adopt CSR with a brand-building strategy. This can be done with an integrated approach the integrated system is nothing but the organization's objective, and CSR object should be in line, for example, Horlicks objective is to eradicate hunger and poverty, and as a CSR activity, they provided malnutrition in their product manufacturing by creating an image. The researcher suggests that event marketing, media monitoring and customer loyalty program marketing tools will build customer loyalty. Media marketing plays a vital role in the pandemic period.

Managerial Implication

Figure 5 explains the importance and performance analysis (IMPA) in SmartPLS. All the variables are located in the right corner, which shows how important the adopted variable is for organization performance; an organization can adopt the above model because it is highly conducive to creating brand loyalty.

Research Limitations and Future Works

The research studied the relationship between the legal and ethical dimensions of CSR with Carol's theory in relationship with brand loyalty. Only the repurchase, recommendation and satisfaction extent of brand loyalty is adopted. Further research can explore various dimensions such as attitudinal, behavioural, functional and symbolic aspects. Also, the study does not emphasize consumer characteristics; the researcher can do future investigations of consumer dimensions and broader perspectives in other sectors such as banking and finance, automobiles and so on.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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Article

Corporate Governance in Family Firms: A Bibliometric Analysis

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Abstract

Like other business forms, corporate governance is a matter of concern for family firms as well. The objective of the work is to study the corporate governance practices of family-owned firms using bibliometric analysis of existing literature. With the help of VOSviewer & Biblioshiny Software, an attempt has been made to develop the visualization patterns based on academic publications growth, most influential authors, country, keyword occurrences, thematic map and co-authorship network. Based on 435 studies conducted during the selected period, the study found the maximum work has been done in the USA followed by Italy, Spain, China and UK, and Anderson and Reeb (2003) is the most cited work in this area. The main focus of prominent studies was on assessing the impact of family ownership on a firm's performance, and there is unanimity that family firms' CEOs devote more time and effort to preserve socio-economic wealth, have fewer forecasting errors and perform better. Though 'corporate strategy' and 'governance approach' are key concepts in family businesses yet it is a less explored areas. This article provides an overview of how the literature on corporate governance and family firms has evolved and a synopsis of the most influential authors, most productive countries, co-word analysis and themes clustering. This study provides a thorough coverage of the existing literature on family governance mechanisms and is helpful for new researchers who want to understand this concept and also for those who are looking to explore new directions in the same field.

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Keywords
Corporate governance, family firms, bibliometric analysis, Scopus

Introduction

Corporate governance aims to ensure fairness and transparency in all managerial decisions for the protection of the interest of investors and other related stakeholders. According to OECD (2019), corporate governance ensures that the interests of all the stakeholders within and outside the business are taken care of. With time, it has gained equal relevance to family-run businesses as well. Corporate governance is concerned with ownership structure, principal–agent conflicts, board composition and strengthening the firm's performance (Ehikioya, 2009). The ownership structure is one of the key elements of corporate governance as it determines who has the authority to make decisions for the company (Zattoni, 2011). Family-owned firms are more complex than publicly listed companies, due to the need of preserving the harmony between the interest of the family and the company (Howorth & Kemp, 2019; Kabbah de Castro et al., 2017). The introduction of corporate governance in family businesses aims to resolve conflicts between majorities (family members) and minorities shareholders and to build transparency to promote stakeholders' interest (Kaur & Singh, 2018), through effective board monitoring, quality audit and disclosure transparency (Sarbah & Xiao, 2015). In family businesses, the effectiveness and competency of the group can be a great asset for the economy, but if these groups act unethically, they can become liabilities for the economy. The management and expansion of family enterprises are affected by corporate governance components. Corporate governance mechanisms significantly contribute to taking effective and quality decisions (Shivani et al., 2017). But if corporate governance mechanisms are weak in the family group, it can decrease the efficiency of the firm (Morck & Yeung, 2003).

The interrelationship between family ownership and corporate governance is an emerging area of discussion among academicians and researchers (Chen et al., 2008; Hasan et al., 2014; Jiang & Peng, 2011; Kowalewski et al., 2010; Mohd & Wi, 2003; Peng & Jiang, 2010). Most of the prominent authors (Anderson & Reeb, 2003; Andres, 2008; McConaughy & Walker, 1998) have shown that family firms are performing well and also have better long-term investment vision (James, 1999) in comparison to non-family firms. Chua et al. (1999) have defined a family firm as an organisation that is governed or controlled by the 'same family or a small number of families in a manner that is potentially sustainable across a generation of the family or families'. According to the report published by the Boston Consulting Group in 2017, approximately 60% to 85% of enterprises globally are regulated or controlled by families (Bhalla & Orglmeister, 2017). Family firms are playing a significant role in 'wealth creation, wealth preservation and wealth distribution' in the nations (Priya, 2021). The governance structure of the family firms is different from that of non-family members (Daily & Dollinger, 1992) because of differences in goals and ownership structure (Bettinelli, 2011).

In addition to focusing on long-term sustainability (Mandl, 2008), family ownership also improves company performance by cutting agency costs (Minh Ha et al., 2022). Simultaneously, some studies (Mani & Lakhal, 2015; Pearson et al., 2008; Salvato & Melin, 2008) suggest that family-owned boards have high productivity, are more efficient (McConaughy & Walker, 1998) and create high firm value (Eugster & Isakov, 2019; Koji et al., 2020). In contrast to these findings, many researchers (Claessens et al., 2000; DeAngelo & DeAngelo, 2000; Villalonga & Amit, 2006) have also talked about how the large number of family members on the board might exploit minorities for personal benefits. The presence of more family members can lead to another type of conflict, known as Agency Problem II (The exploitation of the minority shareholders by controlling shareholders, a different sort of conflict from Agency Problem I as explained by Ballantine et al. (1932) and Jensen (1986). Cucculelli and Micucci (2008) and Miller et al. (2007) analyse the behaviour of family businesses and find that when family members hold the majority of ownership, they prioritise their interests over those of the business, which resulted in lower productivity (Barth et al., 2005).

Family businesses encompass some of the biggest corporations in the world, and their economic impact is still enormous (Peng & Jiang, 2010). Even though researchers and academics are paying attention to this topic, it still requires more development (Pieper, 2003; Rovelli et al., 2022). The available literature on the governance structure in family enterprises has yielded conflicting results, so the current study aims to comprehend, examine and identify the key themes in that literature. By using the bibliometric review methodology, this study seeks to address the following research issues:

1. The publication trend over the period.
2. The most prominent works on corporate governance and family ownership.
3. The leading countries where the work in this area has been done.
4. The most influential research topics in corporate governance practices of family-owned firms.

This study contributes significantly to understand the governance mechanisms of family firms by conducting an inclusive analysis of the related literature. The other sections of article are formulated as follows. The second section briefly discusses about theoretical framework, rationale and objectives of the study. The third section explains the research methodology. The fourth section is related to analysis and interpretation of the data. The fifth section discusses the conclusion, implications and directions for future research.

Theoretical Framework

There is no universal definition of family-owned firms, different authors have explained this concept in their terms. According to Anderson and Reeb (2003), family firms should own stock in the companies and have a representative on the board. While in terms of McConaughy et al. (2001), the CEO of family businesses should be a founding member or a descendant of the founding family. In family businesses, the decision-making process is influenced by the family members present on the board (Srivastava & Bhatia, 2022). Because of majority shareholding and decision-power concentration, family firms are often criticised (Gómez-Mejía et al., 2007; Ponomareva & Ahlberg, 2016). There are many other issues such as Agency Problem II (due to the dominance of family members in decision-making), weak internal governance mechanisms and managerial opportunistic behaviour arise the question of the need for effective corporate governance mechanisms in family firms (Buachoom & Amornkitvikai, 2022; Lubatkin et al., 2005; Siebels & zu Knyphausen-Aufseß, 2012). Family firms use different forms of internal and external governance mechanisms to solve their family conflicts (Lane et al., 2006; Shleifer & Vishny, 1986) and perform better than non-family firms in the complex and competitive business environment (van Essen et al., 2015). Though, some bibliometric analysis has been done on the corporate governance practices of family-owned firms to understand the involvement of women in decision-making in family businesses (Maseda et al., 2022), trends of publication in the family firm's domain (Araya-Castillo et al., 2022; Rovelli et al., 2022) and to observe the degree of legal protection given to minority owners (Aguilera & Crespi-Cladera, 2012) explained in their review paper that how varies by country and how this influences family businesses' adherence to governance standards. Still, there is a lack of studies that give a thorough overview of the development of governance structures in family firms. So, this study contributes by providing a comprehensive analysis of corporate governance mechanisms in family firms.

Rationale of the Study

The corporate governance structure adopted by the organisations has a considerable impact on the performance of the family businesses (Vazquez et al., 2020) and also aids in solving family conflicts (Miller & Le Breton-Miller, 2006). Numerous studies are focusing on family firm governance but, still, it is not fully evolved and required further validation (Suess, 2014). With the increasing importance of governance in family firms, a bibliometric analysis focusing on corporate governance practices of the family-owned firm can be an important initiative to elucidate further the trend, present scenario and potential for future research on this topic. The present study is an attempt in this context.

Objectives of the Study

The main objective of the article is to study the growth, trends, pattern, main authors, core themes and unexplored areas in the studies focusing on corporate governance practices of family-owned firms.

Research Methodology

The study has followed the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines as proposed by Moher et al. (2009) to extract the relevant studies from the Scopus database (Figure 1). In the first stage, only published research articles were extracted from the Scopus database using 'corporate governance' and 'Family Firm' as the keywords, and 495 research articles were identified at this stage. In the second stage, articles published in the subject domains, that is, Business Management, Accounting, Finance, Economics and Econometric Finance were retained, which limits the number to 464. Thereafter 29 research papers published in other than the English language were also excluded and finally 435 research articles were considered for further research.

The study applied the bibliometric technique to summarise and categorised the bibliographic data (Debicki et al., 2009; Ferreira et al., 2019) and to explore the quantitative changes and publication propensity in the studies conducted on the theme 'corporate governance in family firms' (De Bakker et al., 2005; Merigó et al., 2015).

The bibliometric technique evaluates the existing literature in a certain field to determine current research trends based on themes, citations, publication growth

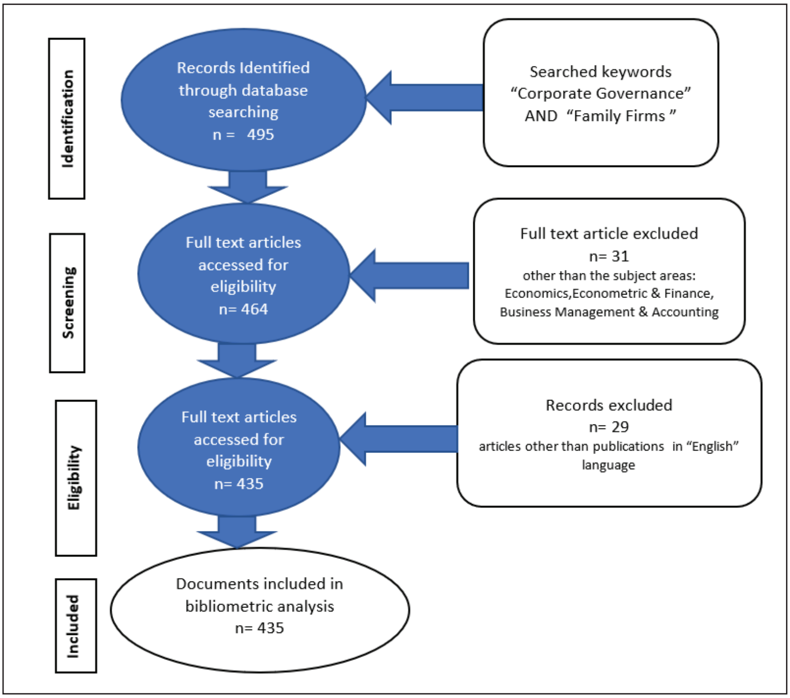

Figure 1. PRISMA Flow Diagram.

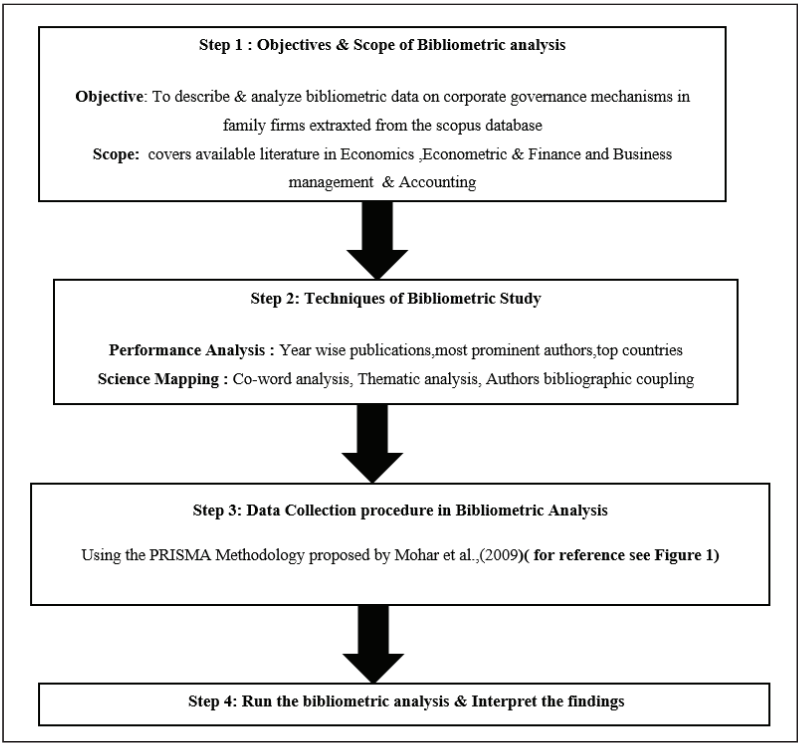

Figure 2. Bibliometric Method Steps.

and other relevant research components (Ali et al., 2020; Paul & Criado, 2020; Wallin, 2005). Pritchard (1969) in his study defined the bibliometric method as a 'new discipline where quantitative methods were employed to probe scientific communication process by measuring and analysing various aspects of written documents'. The adoption of the bibliometric review method is very significant to have an inclusive understanding of the scientific literature related to that field (Durieux & Gevenois, 2010). A summarised view of the criteria used for the selection of the relevant literature for doing bibliometric analysis is exhibited in Figure 2.

Data Analysis and Interpretation

To answer all formulated research questions, the performance mapping technique has been used. Performance mapping technique is a method of bibliometric review analysis, that is descriptive and focuses to examine and to present the performance of selected research constituents related to a particular field (Donthu et al., 2021a; Mas-Tur et al., 2021). The first three questions have been addressed with help of the performance analysis technique. To answer the last question authors have applied the science mapping method. Science mapping displays the structural interconnection and interaction among the different aspects of a research field (Donthu et al., 2021b). For creating the visualisation network two software, that is, VOSviewer software and the Biblioshiny package of Rstudio software have been used. Thematic networking diagram is constructed by using the Biblioshiny package, and keyword analysis & authors' bibliographic coupling maps are created through VOSviewer.

Growth of Literature

It is seen from the publication trend (Figure 3 and Table 1) that the first publication related to the field was recorded in the Scopus database in 1998. However, continuity in publications was noticed from 2007. There was a stable growth in publications from 2002 to 2007, but then significant growth was noticed in 2008 (12 documents) and then in 2015 (42 documents). The maximum number of publications was recorded in 2022 (58 documents, 13.33%). This upward trend is showing increasing concern among researchers and academicians in this research area.

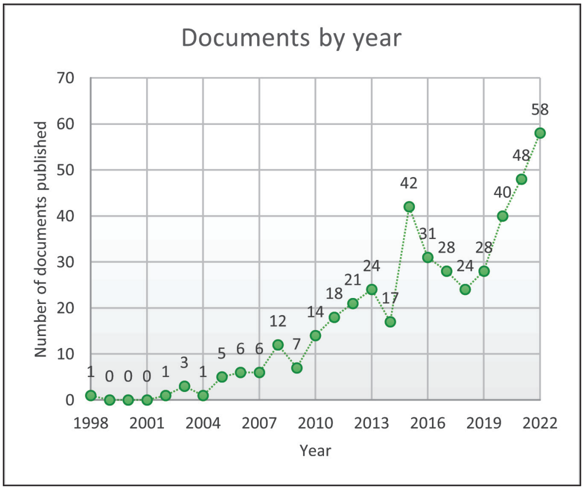

Figure 3. Number of Documents Published per Year.

Table 1. Year-Wise Publications from 1998 to 2022.

Publication Year	No. of Publications	Publication Year	No. of Publications
2022	58	2009	7
2021	48	2008	12
2020	40	2007	6
2019	28	2006	6
2018	24	2005	5
2017	28	2004	1
2016	31	2003	3
2015	42	2002	1
2014	17	2001	0
2013	24	2000	0
2012	21	1999	0
2011	18	1998	1
2010	14		

Source: Annual distribution of the literature in Scopus database.

Most Prominent Authors

Table 2 highlights the top 10 most cited authors with the title of publications and their total citations, and it has been observed that Anderson R.C. with 829 citations is the most cited author followed by Burkart M. with 737 citations and both having single publications. Thus, these two publications are most significant to understand the corporate governance behaviour of family-owned enterprises. The study titled 'Founding family ownership and the agency cost of debt' by Anderson and Reeb (2003) is the most cited article, which discussed about the impact of family ownership on firm's performance. The study concluded that the family firms' performance is much better than non-family firms due to the presence of family CEO on board. Although Kellerman has the highest number of publications (n = 6) with 390 citations, but their citations are comparatively very less in numbers than the authors with a few publications, such as Anderson R.C. (n = 1) with 829 citations, Burkart M. (n = 1) with 737 citations, Ali A. (n = 1) with 585 citations, Jiang Y. (n = 3) with 490 citations and Carney M. (n = 4) with 427 citations. In the next paragraph, highly cited publication of top 10 prominent authors have been explained (Table 2).

Out of his six publications, Kellerman (Gedajlovic et al., 2012) received the most citations (307 citations) for his review work titled 'The Adolescence of Family Business Research: Taking Stock and Preparing for the Future' and concluded that family firms devote more time and effort to preserve the socioeconomic wealth of the firm as compared to non-family firms. The second most cited work in this area is Burkart et al. (2003). In this study, the authors explained the repercussions of the agency's two problems, that is, (between majority and minority shareholders), and argued that the legal protections offered

Table 2. Most Prolific Authors (Top 10).

Author	Articles		Article Wise Citations	Citations
	Number	Title		
Anderson R.C.	1	Founding Family Ownership and the Agency Cost of Debt	829	829
Burkart M.	1	Family Firms	737	737
Ali A.	1	Corporate Disclosures by Family Firms	585	585
Jiang Y.	3	Institutions behind Family Ownership and Control in Large Firms	304	490
		Are Family Ownership and Control in Large Firms Good, Bad, or Irrelevant	143	
		Principal-Principal Conflicts during Crisis	90	
Carney M.	4	The Adolescence of Family Firm Research: Taking Stock and Planning for the Future	308	427
		How Does Family Control Influence Firm Strategy and Performance? A Meta-Analysis of Us Publicly Listed Firms	86	
		The Resilient Family Firm: Stakeholder Outcomes and Institutional Effects;	73	
		Inheritance Tax, Shareholder Protection, and the Market Value of Family Firms: A Cross-Country Analysis	2	
Fernández Z.	1	Impact of Ownership on the International Involvement of SMEs		400
Kellermans F.W.	6	The Adolescence of Family Firm Research: Taking Stock and Planning for the Future	308	390
		Managing Family Members: How Monitoring and Collaboration Affect Extra-Role Behavior in Family Firms	26	
		Ready for a Crisis? How Supervisory Boards Affect the Formalized Crisis Procedures of Small and Medium-Sized Family Firms in Germany	39	
		Setting the Right Mix-Analysing outside Directors' Pay Mix in Public Family Firms	9	
		Voluntary Disclosure of Individual Supervisory Board Compensation in Public Family Firms	7	
		For Love or Money? Family versus Financial Block Holders in International Acquisitions	1	

(Table 2 continued)

(Table 2 continued)

Author	Articles		Article Wise Citations	Citations
	Number	Title		
Miller D.	3	Family Firm Governance, Strategic Conformity, and Performance: Institutional vs. Strategic Perspectives	225	296
		To Grow or To Harvest? Governance, Strategy, and Performance in Family and Lone Founder Firms	64	
		Ownership Similarity in Mergers and Acquisitions Target Selection	7	
Minicilli A.	5	Are All Non-Family Managers (NFMs) Equal? The Impact of NFM Characteristics and Diversity on Family Firm Performance	118	296
		Weathering the Storm: Family Ownership, Governance, and Performance through the Financial and Economic Crisis	47	
		Family Involvement and Firms' Establishment Mode Choice in Foreign Markets	114	
		Financial Performance and Non-Family CEO Turnover in Private Family Firms under Different Conditions of Ownership and Governance	14	
		Strings Attached: Socioemotional Wealth Mixed Gambles in the Cash Management Choices of Family Firms	3	
Le Breton-Miller	2	To Grow or To Harvest? Governance, Strategy, and Performance in Family and Lone Founder Firms	64	289
		Family Firm Governance, Strategic Conformity, and Performance: Institutional vs. Strategic Perspectives	225	

to minority shareholders play a significant role in deciding the role of family members in the firm's management. (Ali et al., 2007) in their study titled 'Corporate Disclosure by Family Firms' analysed the disclosure practices of family firms and found that the family firms have fewer forecasting errors, bid-ask spreads and lower analysts' dispersion as compared to the non-family firms. The fourth most cited work with 304 citations, that is, 'Institutions behind family ownership and control in large firms', by Peng and Jiang (2010) concluded that the corporate governance mechanisms—ownership, CEO position, pyramid structure and institutional development—have a significant impact on firm's value. The study conducted by Fernández and Nieto (2006) have 400 citations worked on understanding the role of the family in scaling the firm to the international level and observed that family ownership has a negative effect on internalisation. The firm having corporate ownership has scaled to the international level. The study titled 'Family Firm Governance, Strategic Conformity and Performance: Institutional vs. Strategic Perspectives' by Miller D. & Le Breton-Miller (authors ranked 8th and 10th in most cited authors) argued that strategic conformity is more prevalent in businesses where family members serve as CEO. But this strategic conformity is found to be associated only with high return on assets not with firm value. While analysing the impact of family manager's characteristics on firm's performance, Minicilli A., tested the moderation effect of family dominance and noticed that non-family team diversity plays a significant role in firm performance and the family dominance (i.e., proportion of family members on board), have a positive moderating effect.

Country-Wise Scientific Production

Figure 4 presents the top 10 countries where studies on corporate governance practices of family-based firms have been conducted. It may be observed from the study that the majority of the research works have been concentrated within the realm of highly developed countries such as the United States (*N* = 91), Italy (*N* = 55), Spain (*N* = 42), United Kingdom (*N* = 32), Germany (*N* = 28), Australia (*N* = 25) and Taiwan (*N* = 24). Only 3 developing countries make it into the top 10, and those are China (*N* = 32), Malaysia (*N* = 26) and Canada (*N* = 22). In terms of citations, Table 3, the studies conducted in the USA have the highest number of citations (4,789) followed by Italy (1,792), Spain (1,344) and Canada (1,149). China and the U.K. have only 32 publications but not enough to make a significant impact in terms of citations compared to the publications of Germany and Canada.

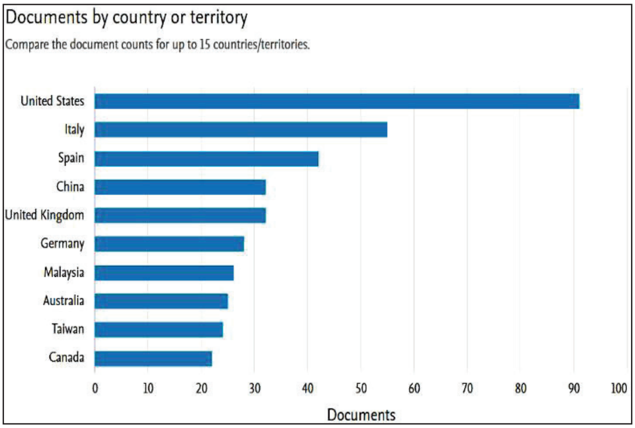

Figure 4. Top 10 Countries Having Maximum Number of Publications.

Source: Extracted from the Scopus database.

Table 3. Top 10 Most Influential Countries.

Country	Documents	Citations
United States	91	4,789
Italy	55	1,792
Spain	42	1,344
China	32	447
United Kingdom	32	900
Germany	28	1,031
Malaysia	26	184
Australia	25	327
Taiwan	24	689
Canada	22	1,149

Keywords Visualisation Network

Table 4 indicates the top 10 keywords based on their frequency and total links. The size of nodes in the keyword visualisation network reflects the frequency of keywords; the larger the size, the higher the frequency of keywords (Viana-Lora & Nel-lo-Andreu, 2022). The keyword clusters are formed based on co-occurrence network and each keyword has different density (Dharmani et al., 2021). The corporate governance node has the highest occurrences (280), followed by family firms (190), family business (31), family ownership (31), ownership structure (31), agency theory (28), firm performance (28), board of directors (18), socioemotional wealth (15) and earning management (11).

Authors' keywords are grouped into five clusters (Figure 5). The red cluster shows smallest distance between the node 'family firm' and 'corporate governance', which means that these two keywords have a strong relationship compared to other items that fall in the same cluster, that is, agency problem, dividend policy, family control, financial crisis, institutional investors and innovation. Orange cluster is centred by firm performance and shows the correlations with other nodes such as ownership concentration, product market competition and corporate governance. The green cluster indicates the interlink among the agency theory, board composition, business group, CEO compensation, market perception and stewardship theory. The concept of family ownership (blue cluster) has been explored by the researchers in the context of audit committees, board independence, board of director's composition and earning management. The yellow cluster explains the inter link between firm value, dividend structure, executive compensation and ownership structure. The thickness of the link shows the co-occurrence of the keywords resembling similar research work and also an overview of the areas that are interlinked but still unexplored (Donthu et al., 2021a).

Table 4. Top 10 Keywords.

Keyword	Occurrences	Total Links
Corporate governance	280	31
Family firms	190	30
Family business	31	10
Family ownership	31	14
Ownership structure	31	11
Agency theory	28	16
Firm performance	28	9
Board of directors	18	9
Socioemotional wealth	15	8
Earnings management	11	8

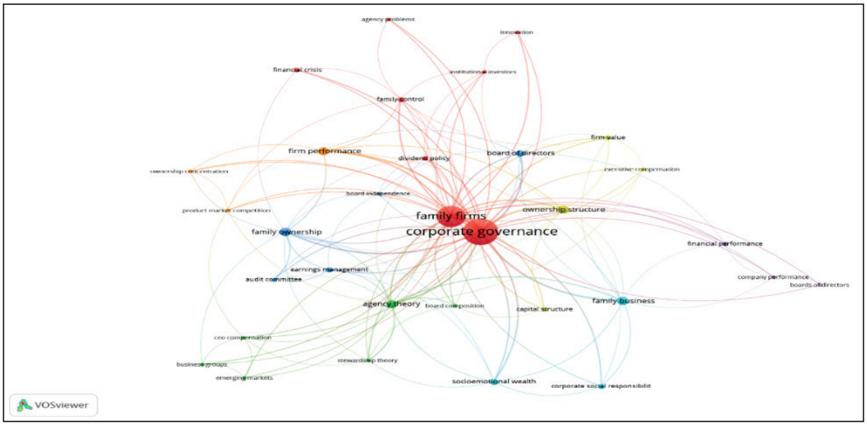

Figure 5. Keywords Cluster Map.

Source: Co-word analysis in VOSviewer software.

Bibliographic Coupling of Authors

Bibliographic coupling is a science mapping technique based on the assumption that publications with shared references also have similarities in the contents (Weinberg, 1974). Donthu et al. (2021a) and Zupic and Čater (2015) emphasised the importance of bibliographic coupling and stated that in this analysis, publications are grouped into themes due to shared references. Figure 6 visualises the bibliographic network of the authors. All authors have been classified into seven clusters based on the intellectual linkage in their work (Table 5). Cluster 1 (Red cluster) is anchored by 47 authors working on the heterogeneous themes 'corporate governance', 'corporate social responsibility' (CSR) and 'decision making' in family firms. The second cluster (green) indicates the tendency of authors towards the performance of family firms in 'cross-national' context. The third cluster (blue) consists of authors who tend to analyse the 'ownership composition' in family firms. The generalised theme in the yellow cluster refers to the impact of family ownership on the 'financial performance' of the firms. The purple cluster consists of authors who have focussed on studying the 'managerial practices' in family firms. Cyan cluster consists of authors who have explored the impact of 'board structure' on family firm value, and the orange cluster consists of authors who have explained the 'need for the adoption of CG practices' in family firms. The bibliographic coupling method is based on the notion that two papers that cite a third paper are highly connected and ought to be grouped together in the visualisation map's cluster solution.

Thematic Map

The thematic map represents the centrality on the *X*-axis and density on the *Y*-axis of the keywords cluster. In the thematic mapping method, interconnections between the cluster formed based on the author's keywords are analysed to obtain relevant themes. Centrality symbolises the degree of interaction while density is about the 'internal strength' of a cluster (Agbo et al., 2021). There are four quadrants in the thematic map, and each quadrant has a different theme (Sobjak et al., 2023). The quadrant of upper right is depicted for motor themes contains

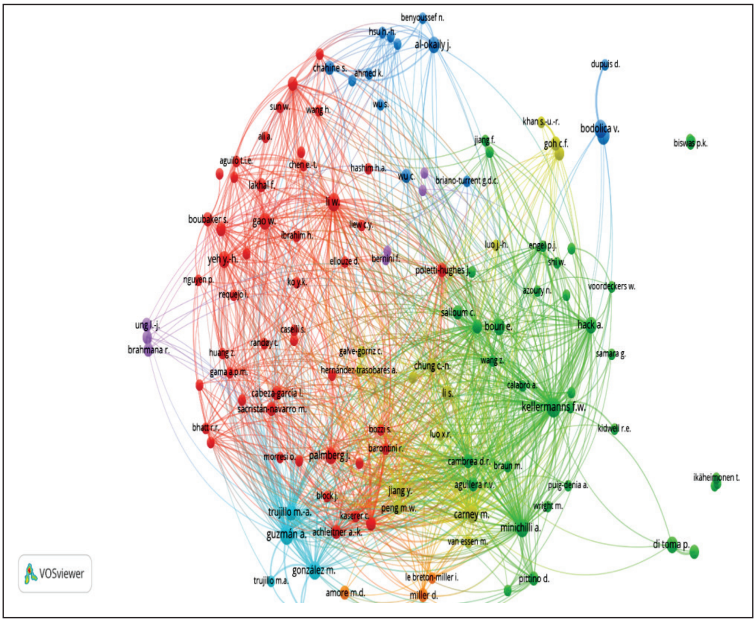

Figure 6. Bibliography Coupling.

Source: Bibliography coupling (authors) clusters created by using VOSviewer software.

Table 5. Interconnected Co-Authors Clusters.

Cluster	Interconnected Authors	Identified Topics/Themes
Red cluster	47	Corporate disclosure, corporate social responsibility (CSR) & decision-making in family firms
Green cluster	36	Family firms in a cross-national context
Blue cluster	17	Ownership composition
Yellow cluster	14	Family firms and financial performance
Purple cluster	7	Managerial practices of family firms
Cyan cluster	5	Board structure of family firms
Orange cluster	3	Need for the adoption of CG mechanisms by family firms

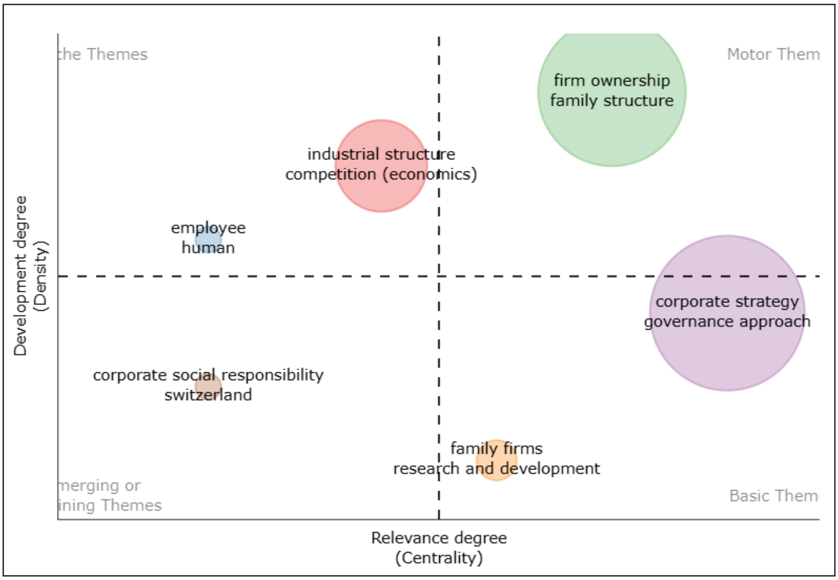

Figure 7. Thematic Map.

Source: Created by the authors using Biblioshiny (Rstudio software).

'family structure' and 'firm ownership'. Motor themes are considered to be well-developed and also crucial for structuring the research field. The lower left quadrant is devoted to the emerging concept which is 'corporate social responsibility'. But the influence of CSR on the evolution of the family firm notion is not very significant. The lower right quadrant reveals that—'corporate strategy' and 'governance approach' are the fundamental concepts in the context of family-owned enterprises but need further validation. In the upper left quadrant, niche and well-developed issues such as ‘industrial structure’ and ‘market competition’ can be seen (Figure 7).

Conclusion and Discussion

Most of the firms worldwide are family owned in nature (Gedajlovic et al., 2012; Hiebl et al., 2018) and play a significant role in employment creation (Carsrud & Brännback, 2012). The growth of family firms also depends upon governance practices adopted by the firms. This study is focused on studying the evolution of corporate governance practices in family-owned businesses. The first publication in the Scopus database was reported in 1998 and the graph shows a tremendous growth rate. The most prominent study (Anderson & Reeb, 2003) concludes that corporate governance plays a significant role in resolving family conflicts and in developing an atmosphere of business transparency, trust and fairness within the organisation. The authors Anderson and Burkart are found as most prolific authors, and the most productive countries are found to be USA, Italy and Spain.

For finding the most prominent themes, keywords networking diagram and thematic mapping methods were used. Keywords networking analysis identifies that ‘innovation’, ‘product market competition’, ‘corporate social responsibility’, ‘financial crisis’ and ‘socio-economic wealth’ are less explored concepts int he context of family firm literature. So, these areas can be further explored to have a better understanding of family firms’ behaviour and to give new directions for future research. Thematic analysis suggests that corporate strategy and governance approach are the basic themes related to the field but are still unexplored. It also shows that industrial structure and competition are well-developed themes, but more efforts are needed to establish their link with the family businesses. The most significant authors and their collaborative efforts in the field of family governance are displayed by the bibliographic co-authorship network. This network identifies ‘corporate disclosure’, ‘corporate social responsibility’, ‘decision-making power’, ‘managerial behaviour’, ‘ownership composition’, ‘board structure’ and ‘governance mechanisms’ in family firms as the core themes in the existing studies. Family-owned firms are more engaged in CSR activities and more financial transparency due to their reputation concern. In addition to resolving disputes and fostering harmony among the family board, an effective governance framework is substantial for long-term survival in the market.

Implications

The study is an attempt to review the existing literature on significance of the corporate governance practices of family firms and may help the academicians and practitioners in better understanding the insinuation of family firm’s governance practices and its impact on its growth as well as to identify potential themes for future research work. Bibliometric review is the theoretical representation of available literature, so this study can also serve as a foundation for other literature review methods like meta-analysis and systematic review, and also for empirical studies.

Limitations and Future Research Directions

The bibliometric analysis is a useful tool for exploring and identifying research gaps in the literature but not devoid of limitations (Wallin, 2005). A somewhat more pertinent limitation emanates from the fact that research papers/studies examined have been extracted only from Scopus database. This study did not consider the articles from other databases such WoS Index, EBESCO, Google Scholar and other eminent databases, which limits the generalisation of findings. So future studies can add to this field by considering all these databases. This study is limited only on to understand the corporate governance framework in family-owned firms; hence, future research may explore other factors such as social capital, competitive advantage, financial performance and stock market behaviour in context of family firms. However, despite these shortcomings, the study will be helpful to the researchers in acknowledging the earlier work and future directions in the field of family-oriented studies.

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Commentary

Managing Change: Love or Hate Relationships

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Abstract

The purpose of this article is to provide an overview of the latest developments in change management worldwide and to identify practical implications arising from leading-edge research. The methodology for this briefing involves an independent writer adding impartial comments and contextualising the articles. The article examines the importance of having a high-quality management team in evaluating, designing and executing successful change strategies; specifically, the team's capability to structure the organisation in a way that is responsive and progressive is crucial for successful change management. The article also discusses creative problem-solving and its limitations, and indicates that an independent facilitator could promote creative problem-solving. The authors opine that business leaders must have a better understanding of the different roles they can assume to make sure that initiatives are sustainable and successful. Successful change leaders attribute their success to leading change rather than managing it. This article offers deep insights into newest developments in change management and underscores the importance of effective leadership in achieving successful change initiatives.

Keywords

Change initiatives, change leaders, change management

Introduction

Humans have exhibited a love-hate relationship with a change during the course of their lives; people have been shown to display love, indifference, dislike and even hate towards change at different points of time. While it may be said that individuals' response towards change is rather unpredictable, it may be said with

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certainty that change is inevitable. Businesses and managers are faced with highly dynamic and increasingly complex operating environments. Thus, they must almost always not only be prepared to cope with, but also expect sudden changes in the business environment. Indeed, change is an essential aspect of everyone's work experience. The key is to be able to manage change in a dynamic environment without compromising with control over the organisation and existing core competencies. The acronym VUCA, with implies volatile, uncertain, complex and ambiguous, represents the types of challenges associated with change faced by businesses today; firms and managers must adapt and learn to manage these types of change to survive, compete and excel. The capability to evaluate, design and implement successful change strategies significantly depends on the management team's quality, particularly their capacity to structure the organisation in a fashion that supports a responsive and progressive change process. Changes that an organisation faces could be several and wide-ranging. While some firms successfully manoeuvre through the tides of change, many organisations perish. Whether an organisation survives and thrives depends on a multitude of factors. An organisation and organisational change are viewed in relation to people and culture; organisational change is not abstract with respect to the organisation, it is essentially for people within the organisation.

Identifying the Change: Organisational Intentions

The first question of course is whether an organisation is successful in identifying the changes coming its way, whether the leadership is able to foresee changes in economic factors, market needs and sentiments, and consumer behaviour that might lead to disruptions in the organisation's business, and the directions of these possible disruptors. It is also important for firms to recognise the direct and indirect effects of disruptions that have already taken place. Technology, for instance, brings in something new every day, and the rapid rate of change it introduces implies far-reaching consequences for business. For example, while Amazon, Uber and Airbnb revolutionised organised retail, the way we commute, and the way we book accommodation, several businesses shrunk or disappeared, like bookshops, black and yellow taxis/cabs, hotels/guesthouses, etc. These are examples of businesses that witnessed disruption. It is during these times that how organisations respond assumes utmost importance.

Responding to Change: Determining Factors

When the survival of a business is dependent on its ability to effectively respond to change, being unresponsive does not remain a choice. Sometimes, companies struggle to meet external market forces. Innovation and good leadership are desired at such times. The ability to foresee change, identify it before it overwhelms the organisation and take the necessary steps to steer the company forward is a sign of great leadership. Organisations witness changes stemming from internal as well and external factors. Internal changes may include changes in leadership, improvements in processes and changes in the way tasks are executed. On the other hand, external changes like market consolidations and mergers with other firms could substantially affect the workforce. Apart from the obvious effects on the market, such changes can result in major workforce transformations. For example, mergers and acquisitions could cause changes to organisational structure and hierarchy, leadership, business direction, company culture, redundancies, job insecurity, resistance to change, talent attrition, low motivation and stress on the system. In light of the above, business leaders must understand the various roles they may assume to increase the chances of success and sustainability of change initiatives. Strong change leaders attribute their success to leading change rather than managing it.

Change management is in itself an area of expertise. Substantial data point to the fact that poor change management has led to the failure of several mergers and acquisitions. An effectual communication strategy is important to success. A lot of problems encountered during any change in an organisation is usually due to lack of adequate, timely and effective communication.

Communication must clearly indicate the purpose of change, and how it would impact the organisation as well as individual employees. In light of change, aspects such as employee role, compensation and benefits, new reporting and hierarchical structure, new leadership, etc., must be clearly communicated. Whether there would be new policies and processes that would change and significantly impact way of working should also be clarified. While a degree of resistance to change due to a sense of familiarity and comfort with existing routines and habits is expected, unclear or ineffective communication would aggravate such sense of discomfort and hinder effective working. Early and effective communication would go a long way in helping cope with change. Leadership is related to change. Given the sheer pace at which change is happening, having an effective leader is vital. An excellent leader not only is a great change manager himself/herself but he/she can also create change for the better. Change leadership refers to the ability to inspire and motivate others towards a shared vision for change, while effectively leveraging available resources to establish a solid foundation for that change. A successful change leader is not only capable of guiding their team through the change process but also remains on the front lines to confront the consequences of their actions. In this context, there are three distinct roles that change leaders can adopt, which have been shown to yield positive outcomes for organisations (Anderson, 2022):

- **Agitator:** This role brings to light the grievances of individuals or groups, raising awareness and often leading to proactive organisational change. The agitator serves as a disruptor, acknowledging challenges and committing to action towards change that ultimately results in practical solutions.
- **Innovator:** While the agitator uncovers grievances, the innovator creates actionable solutions to address them. This role also involves careful planning to ensure effective implementation of the proposed solutions.
- **Orchestrator:** The orchestrator takes the innovator's plan and coordinates actions across groups, organisations and sectors to scale the proposed solution. This is often the most visible function of effective leadership.

Successful change leaders must embody all three roles, as each plays a crucial part in the change process. Without agitation, it can be difficult to identify grievances and the need for change. Innovation cannot thrive without a proper understanding of what needs to be changed. While innovative ideas and solutions are essential, they cannot make a significant impact without proper orchestration and implementation.

The Impact of Change

To achieve effective change implementation, change leadership should prioritise expediting and fine-tuning the process. Instead of dictating what people should do during times of change, it is more effective for leaders to focus on how people behave and communicate in organisations, as this reflects the organisation's identity construction. In response to the ever-changing organisational environment, leaders should adapt to the dominant organisational discourses to better manage change. A crucial aspect of leading others through change is shifting the language used to discuss it. For instance, leaders can encourage the language of change as a new beginning rather than an ending (which can evoke negative emotions and resistance). Navigating change in any aspect of life can be challenging, particularly in organisational settings where the scale and complexity of change can be significant. Once the change objective is clear, it becomes a project that requires effective management.

Change is

- Inevitable
- All pervasive
- Embedded in everyone's work experience

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