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2026

Triple i – Innovate. Investigate. Inspire

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We express our sincere gratitude to the Management of SVKM's NMIMS Centre for International Studies for fostering a culture of academic excellence and undergraduate research. Their continued commitment to innovation in higher education has provided students with opportunities to explore, investigate, and contribute to meaningful scholarship.

We extend our heartfelt appreciation to our mentor, Shri. Rajesh Shah and Pro Vice Chancellor (PVC) School Mentor Prof. Seema Mahajan whose vision, encouragement, and unwavering support have been instrumental in promoting such initiatives within the institution.

We are deeply grateful to our Director, Dr. Deepali Kamle, for her inspiring leadership and constant encouragement in nurturing a vibrant research ecosystem that empowers students to pursue academic inquiry with confidence and purpose.

Our sincere thanks are also due to the faculty members of Centre for International Studies for their guidance, mentorship, and dedicated efforts in supporting this Student Research Symposium and publication.

Finally, we congratulate and thank our student researchers, whose curiosity, perseverance, and commitment to scholarly inquiry have culminated in the research presented in this volume. Their work reflects the spirit of innovation and critical thinking that ‘**Triple i**’ seeks to celebrate and inspire for years to come.



Address by Shri Rajesh Shah
Senior Trustee Member, SVKM and Mentor, CIS

It gives me immense pleasure to extend my warmest greetings and best wishes to the Centre for International Studies (CIS) on the inaugural publication of **‘Triple i – Innovate. Investigate. Inspire.’**

The launch of **‘Triple i’** marks the beginning of a meaningful initiative at CIS—one that seeks to nurture a culture of research, curiosity, innovation, and intellectual exploration. Research is at the heart of academic excellence. It encourages us to question existing ideas, explore new perspectives, and develop solutions that can create meaningful impact. I am particularly pleased to see CIS fostering a culture where students and faculty are encouraged to go beyond conventional learning and engage with contemporary issues through research and inquiry.

‘Triple i’ reflects this spirit of curiosity and intellectual exploration. The three pillars of Innovation, Investigation, and Inspiration represent the journey from asking meaningful questions to generating knowledge and, ultimately, inspiring positive change.

I commend the efforts of the faculty and students who have contributed to this publication and congratulate the entire CIS team for creating a platform that celebrates research, creativity, and academic thought.

May **‘Triple i’** continue to grow as a meaningful platform for ideas and scholarship, and may it inspire many more young researchers to think boldly, investigate deeply, and create an impact that extends beyond the classroom.



From the Director's Desk

Research is the cornerstone of academic inquiry, driving innovation, critical thinking, and evidence-based decision-making. It empowers students to move beyond the classroom by questioning assumptions, exploring contemporary challenges, and contributing meaningful insights to the ever-evolving body of knowledge. **‘Triple i – Innovate. Investigate. Inspire.’** is conceived as an annual publication that celebrates this spirit of inquiry. This inaugural volume brings together a collection of selected research papers presented at the Student Research Symposium, showcasing the intellectual curiosity, analytical capabilities, and academic potential of undergraduate researchers. The symposium provided a platform for students to engage with real-world challenges, present original ideas, and contribute to meaningful academic discourse.

The research presented in this volume reflects the interdisciplinary nature of contemporary business and management education. The chapters explore a diverse range of topics, including artificial intelligence in education, entrepreneurial behaviour, strategic management, branding, consumer psychology, sustainability, logistics and supply chain innovation, environmental governance, leadership, public policy, education, and emerging business practices. While the subjects vary, each study shares a common objective: to understand contemporary issues through systematic investigation and evidence-based analysis.

As the inaugural volume of the **‘Triple i’** series, this publication represents more than a compilation of research papers; it marks the beginning of a continuing tradition of scholarly excellence. It is envisioned as an annual platform that documents emerging ideas, encourages interdisciplinary collaboration, and inspires future cohorts of students to pursue research with integrity, curiosity, and purpose.

It is our hope that **‘Triple i’** will serve as a valuable resource for students, educators, researchers, and practitioners alike. May this collection stimulate discussion, inspire further investigation, and reinforce the belief that meaningful research begins with curiosity and flourishes through disciplined inquiry.

Dr. Deepali Kamle



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AWARENESS AND ADOPTION OF CARBON CREDITS AMONG INDIAN COLLEGE STUDENTS SURVEY ON KNOWLEDGE GAPS AND WILLINGNESS TO TRADE CREDITS VIA APPS

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Abstract

As climate change worsens more businesses use carbon credits as their primary method to decrease greenhouse gas emissions. While researchers have examined how organizations participate in events, educational institutions need to study how young people from developing countries actively take part in learning activities. The research examines how Indian college students perceive carbon credits and their actual use of this system while they need to learn about carbon credits and their ability to participate in carbon credit trading through mobile applications.

The study used structured questionnaires to obtain primary data from 101 participants who took part in this quantitative research study. Numerical codes were used to transform Likert-scale answers into composite indices which was used to measure five factors: awareness, perceived benefits, technological readiness, social influence and adoption intention. Pearson correlation analysis was used to examine the relationships between different constructs. One-way ANOVA was conducted using Microsoft Excel and JASP was used to assess the level of awareness among students.

The average Awareness Index score of 3.37 indicates that people have achieved a moderate level of awareness. The ANOVA analysis revealed that students from different courses and study programs demonstrated different levels of awareness ($p = 0.011$) while students from different residential backgrounds showed different levels of awareness ($p = 0.004$) but age did not affect awareness levels ($p = 0.132$). The correlation analysis showed that technological readiness ($r = 0.772$) and perceived benefits ($r = 0.630$) were the main factors driving adoption while awareness showed a weak relationship with adoption ($r = 0.381$).

The research shows that digital accessibility together with perceived value functions as the primary factors which determine whether young people will join the movement. The study expands existing climate and technology adoption research through its demonstration that both technological readiness and demographic factors determine how Indian college students engage with carbon credits.

Introduction

All people around the world now focus on climate change mitigation which has become their main concern. The world now uses market-based solutions through carbon credits to address this problem. Carbon credits serve as measurable greenhouse gas emission reductions which organizations use to balance their environmental effects while meeting both mandatory and optional environmental standards. Carbon credit systems exist at institutional and corporate levels yet their use among individual users, especially young adults, stays unexplored.

India functions as two roles because it has become one of the fastest-growing economies while it also produces a large amount of greenhouse gas emissions which establish its significance for global climate change solutions. Environmental sustainability depends on college students because they represent the future workforce and decision-making authorities and public consumers who will shape ecological practices through their environmental knowledge and sustainable behavior. Indian college students lack understanding of carbon credits and their digital trading systems because research has not yet examined these sustainability concepts which are currently being discussed in relation to climate action and digital financial solutions.

The quick expansion of mobile applications together with financial technology-based sustainability platforms has created new ways for people to enter carbon markets. The digital applications which enable users to monitor their emissions and buy offsets or trade carbon credits provide a solution to connect environmental awareness with actual environmental protection efforts. The platform usage depends on existing user awareness and their understanding of platform advantages together with their trust in the system and their ability to access technology and their capacity to navigate the platform. Students will find it difficult to participate effectively because of their existing knowledge gaps about carbon credits and their overall understanding of the system.

The study investigates how Indian college students understand carbon credits while assessing their ability to use digital platforms for carbon credit trading. The study examines how students think about the environment and their ability to use digital tools and their overall assessment of sustainability education which they use to develop educational materials that will help government officials and educators and platform developers understand effective carbon credit engagement methods.

Review of Literature

Bantanur, Mukherjee and Shankar study carbon credits as market instruments which support sustainable development through their examination of regulatory frameworks and trading systems and their economic incentive mechanisms. The paper focuses on how green benefits come along with a few problems such as situations of price fluctuations, difficulty in getting verification and varying participation levels worldwide. The authors argue that proper functioning carbon markets require both strong policy frameworks and transparent monitoring systems to maintain their trustworthiness and efficient operation. (Bantanur et. al, 2015)

Patnaik et al. study carbon credit accounting through the lens of financial reporting standards. The paper investigates recognition measurement and disclosure challenges which exist between IFRS and GAAP accounting standards. The study shows that accounting methods show inconsistencies along with the need

for standardized reporting systems and scientific investigations to enhance financial visibility in carbon markets. (Patnaik et. al, 2016)

This paper by Subrahmanyam and Muralikrishna explains how individuals can participate in carbon credit systems through daily behavioral changes that reduce greenhouse gas emissions. The authors define carbon credits as tradable units which represent one ton of CO₂ emissions that have been reduced or removed from the atmosphere. The research shows that water-saving programs create carbon credits which prove that people besides official organizations can help with climate change mitigation efforts. The research establishes carbon credits as environmental tools which people can use because they function as more than corporate assets. (Subrahmanyam & Muralikrishna, 2017)

Batth discusses the level of sustainability awareness in India and reveals that individuals and companies have quite low environmental literacy skills. His study shows that less developed countries require well, established educational systems and institutions that can provide support if they are to increase their knowledge of sustainability. (Balan, 2020)

Armisen de, Uribe, Gil and Arimany, Serrat in their research explored how engagements of users on voluntary carbon offset platforms help in the integration of the platform's design with the experienced user to finally determine the level of engagement of the user with the platform. Access to technological tools and the possibility of exchanging information facilitate people in forming the green habits of caring for the environment, according to the research. (Armisen et al., 2024)

Ghosh (2025) investigates how sustainability is integrated into Indian business education programs. He reveals that students have strong knowledge of sustainability, but their actual sustainability practices are low. The research reveals that theoretical knowledge alone does not result in active participation as there is a disconnection between knowledge and behavior.

The book, Shaping Tomorrow, looks at how young people see the issue of climate change. It researches how green initiatives and climate actions are related, considering carbon trading as a sort of negotiation tool. By employing survey data and statistical analysis, the research indicates that awareness is a crucial factor in determining how people view carbon trading, whereas other components of green initiatives have little effect. This reveals the intricate nature of environmental awareness in influencing the youth's connection with climate, related financial instruments. (Nathani, 2026)

Research objectives

1. To assess the level of awareness of carbon credits among Indian college students.
2. To analyze students' attitudes and willingness to adopt and trade carbon credits through digital applications.
3. To examine how knowledge gaps, perceived advantages, and technological accessibility affect the adoption of carbon credits among college students.

Research Methodology

The study uses both quantitative and qualitative research methods to determine how much Indian college students understand carbon credits. Original data was gathered through a structured questionnaire which researchers distributed via Google Forms. The participants were college students who belonged to various

academic departments throughout Mumbai in Maharashtra, India and who were between 18 and 24 years old. The researchers developed the questionnaire based on their research objectives and literature review to ensure that the content material would match theoretical concepts and produce valid results.

The questionnaire was sent through digital platforms that were accessible to college students. Convenience sampling was used because the study was about finding out the initial data on awareness and adoption behavior.

The questionnaire contained multiple choice questions and Likert scale statements which were divided into main sections that measured participant knowledge of carbon credits, their self-perception of understanding, their attitudes towards perceived benefits, their skills in using digital platforms, and their willingness to use mobile applications for carbon credit trading. Questions about awareness and understanding evaluated Objective 1 while the response statements about attitudes and financial motivation and environmental responsibility and peer influence assessed Objective 2. The research study evaluated the factors of adoption by utilizing 4 variables, which consisted of knowledge gaps, ease of use, digital trust, and accessibility, to realize the Objective 3 assessment.

Data Analysis and Interpretation

A total of 101 responses from the structured questionnaire were considered valid and evaluated by Microsoft Excel and JASP software. For analysis, coding was done on all the answers on the Likert scale which used a five-point scale.

The paper also employed reverse coding on the negatively worded question for consistency and thus a higher value indicated more technological readiness and a more positive adoption attitude, etc. Based on this, composite indices were created that measured broader constructs and were in line with their research objectives.

The Awareness Index gauged the students' knowledge via two components, such as knowledge, based questions and curriculum exposure. The Benefits Level summed up the perception of environmental and financial advantages. The Technological Level represented the level of digital comfort, trust, clarity, and usability. The Adoption Level reflected the willingness to use, trade, and recommend carbon credit apps.

On a five-point scale where 1 represents the lowest awareness and 5 the highest, the mean Awareness Index of 3.37 indicates a moderate and relatively neutral level of awareness among students.

Chi square test was used to understand the association between Awareness and various demographic factors (age, course/stream of study, and background) of students.

Table 1.: Association between demographic variables and awareness among students.

Association Between		Value	df	p	η^2
Course / Stream of study	X ²	5.188	4	0.011	0.125
Age	X ²	2.319	3	0.132	0.056
Background	X ²	4.516	2	0.004	0.109

Source: Self

The analysis revealed a statistically significant association in awareness across course/stream of study ($p = 0.011$), which showed that students from different academic disciplines had different levels of understanding carbon credits. The study found that awareness was associated with residential background ($p = 0.004$), which showed that people from different geographical areas have different levels of knowledge about sustainability concepts. The study found no substantial age-based differences in results ($p = 0.132$), which showed that age is not associated with awareness levels between different age groups. The research demonstrates that age has less effect on awareness development than educational experience and environmental surroundings.

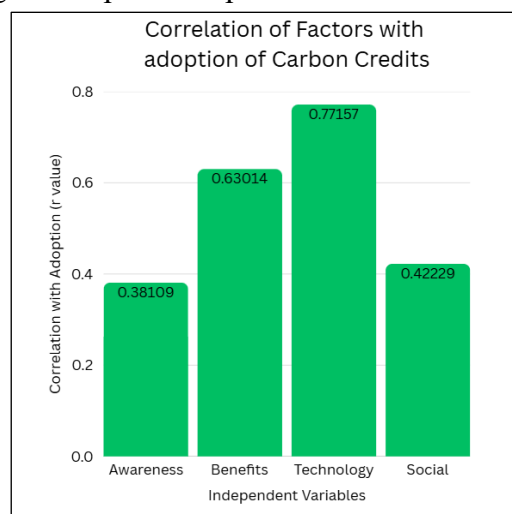
The Pearson correlation test was used to determine how strong the relationship between the variables was and in which direction they went. The results are shown through the comparative bar chart.

Table 2.: Correlation data

	Awareness Index	Benefits Level	Technological Level	Social	Adoption Level
Adoption Index	0.38109439	0.63013574	0.771565836	0.422292236	1

Source: Self

Fig.1.: Graphical Representation of Correlation



Source: Self

The research findings demonstrate that the studied factors serve as the primary reasons which lead to carbon credit adoption through their impact on behavioral elements. The studied factors revealed technological readiness as the most important single factor which affected adoption intention ($r = 0.772$) because it showed a very strong positive relationship with adoption intention. Students who find mobile applications easy to use and trust digital platforms and use sustainability applications without difficulty have higher rates of trading carbon credits.

Digital infrastructure availability together with interface usability creates the primary path which enables citizens to transform their environmental concerns into active environmental protection work.

The perceived benefits with adoption had a significant positive correlation coefficient of 0.630. Students

who perceive that carbon credits help to mitigate climate change while they bring about environmental benefits and also provide financial rewards, are more willing to engage in such activities. The research result proves that people need both environmental awareness and actual benefits to drive their sustainable decision-making processes.

Social influence demonstrated a moderate positive correlation with adoption ($r = 0.422$) which showed that peer awareness together with social validation contributed to adoption decisions, but these factors had less impact than technological elements and benefit-related factors. The environmental responsibility behavior of young people shows that social norms function as supportive elements which help establish their eco-friendly practices.

The study found a moderate link between adoption and awareness level which showed an adoption relationship of ($r = 0.381$). The study results show that people who know about sustainability and possess knowledge about it will be more willing to adopt sustainable practices. The study results show that people need to understand carbon credits but they will participate more actively when access to information and their understanding of its worth improves.

The analysis shows that college students who adopt carbon credits do so because they have access to technology and they understand the advantages of using carbon credits. The research findings show that programs which want to increase student involvement in carbon credit systems must create digital platforms which users find easy to use and establish trust in online sustainability transactions and make both environmental and financial benefits clear to users. The establishment of these enabling factors will allow young adults to advance from understanding carbon credits to practicing them in their daily lives.

Suggestions

The research results show that students have partial knowledge about carbon credits yet this knowledge does not lead to strong adoption. Educational institutions should implement practical sustainability modules which require students to apply their knowledge throughout all academic programs, especially in disciplines which show less environmental awareness. The existing rural background of students results in varying levels of awareness about the different program options which require creation of dedicated programs to serve this student group. The research shows that technological readiness has the greatest impact on adoption therefore climate-tech developers and policymakers should develop digital platforms which offer secure user access and transparent operations. Youth engagement in carbon credit systems increases when organizations effectively explain their environmental and financial advantages because they enhance the perceived value of the benefits.

Conclusion

The research focused on how well Indian college students understand and use carbon credits. The research study evaluated two aspects which included the students' knowledge deficiencies and their ability to use digital resources for researching carbon credits. The study results show that people know about carbon credits at a moderate level, but this knowledge does not predict their behavior toward adopting carbon credits. The study found that participants would join the program based on their technological capabilities and their understanding of the program's advantages. Students who showed they could use mobile applications and who believed in digital platforms and who understood the environmental and financial benefits of carbon credit systems showed a strong tendency to use carbon credit systems. The process of

social influence showed positive effects which helped people make social choices, but it operated at a lower importance level. The results demonstrate that youth need to learn more than sustainability concepts through theoretical education to become active participants in carbon credit markets. The organization needs to establish digital access points while developing user-friendly platforms which will help users understand their benefits to users. The research shows how young Indians can use digital platforms to make environmentally responsible financial decisions during climate change challenges.

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DATA, GUT FEEL, OR BOTH? HOW MANAGERS REALLY MAKE DECISIONS

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Abstract

Managerial decision making is a key factor in defining performance and operational efficiency of organisations. As organisations gain more data related to digital systems and performance measures, they are encouraging managers to increase their reliance on data in order to enhance the accuracy and accountability of their decisions. Nevertheless, the intuition of managers, which is formed based on professional experience and a sense of context, still affects the decision-making processes.

This paper explores the use of data and managerial intuition in managerial decisions and also how these two impact the perceived quality of decision-making. A Quantitative research design was used based on primary data collected based on a structured questionnaire. A total of 100 respondents occupying managerial and decision-making positions participated in the study. Use of data, managerial intuition, and managerial perception of quality of decisions were measured on a five-point Likert scale.

Descriptive statistics, correlation test, multiple regression test were conducted to assess the relationship between the variables. The results show that the managers have high reliance on data and managerial intuition. Correlation analysis indicates that both data use and managerial intuition are positively associated with perceived decision quality, with managerial intuition demonstrating the stronger relationship. Regression analysis shows that managerial intuition has a stronger independent effect on perceived decision quality when both variables are considered simultaneously.

The study finds that, to make effective managerial decisions, it is essential to combine both analytical information and experiential judgement and, more specifically, the role of intuitive expertise should have a significant effect on the quality of decisions. These results have practical implications on organisations that want to improve the effectiveness of managers and improve decision-making practices.

Introduction

One of the most significant tasks of the managers is the decision-making process since it directly depends on the performance of the organisations, distribution of resources, the productivity of employees, and the long-term strategic performance. Decisions made concerning every action of the managerial activities, both operational and strategic, have implications on the organisational outcomes. Sound decision-making is thus

the key issue in keeping the organisation competitive, enhancing its efficiency and facilitating its sustainable growth. Managerial decision-making is a significant research area in management since it is a vital component of management. Conventionally, professional experience and accrued knowledge together with personal judgement were a key determinant of managerial decisions. Managers tend to interpret things according to previous experiences and use the same arguments when choosing the available alternatives.

Nevertheless, technological advancement and digitalisation have greatly changed the modern business environment. The information systems, performance monitoring tools, and analytics platforms have enabled organisations to have access to large volumes of both structured and unstructured information. Consequently, the idea of data-driven decision-making has become a more popular subject of interest since it is aimed at enhancing the accuracy, objectivity, and accountability of managerial decisions. Data-driven decision making is the use of quantitative data, reports and other measurable indicators to guide managerial judgement and minimise subjectivity. The use of data, however, might not be always sufficient.

In most organisational settings, data at hand might not be complete, unclear, latent or hard to interpret. The managers are also frequently forced to work in a state of uncertainty and time constraint which restricts the chances of having a thorough analysis. In these situations, intuition is a valuable part of the decision-making process, as per the managers. Managerial intuition is described as experience based judgement that helps managers to read between the lines and act in response to the limited or ambiguous information. Despite the fact that data-driven decision-making and managerial intuition are two closely related concepts, which are commonly addressed in scholarly literature, a number of studies focus on them individually.

There is a dearth of empirical studies on merging analytical data with the use of intuitive judgement in managers in actual organisational situations, especially in an emerging economy like India. This paper thus analyses the data use and managerial intuition contribution to managerial decisions and explores the impact of these two variables on the perceived quality of decisions.

Review of Literature

The issue of managerial decision-making has attracted greater research interest in management and the behavioural research due to its core role in organisational performance and strategic prowess. Simon (1997) was one of the first to put forward a theoretical contribution by coming up with the notion of bounded rationality. The managers in this view will be making decisions based on limitations of information, time and cognitive limits. This questioned the classical view that decision-makers are quite rational in their actions and emphasized the importance of judgement and experience in managerial decision-making.

As the information systems and digital technologies evolved, the studies started paying more attention to data-driven decision-making. Brynjolfsson, Hutt and Kim (2011) discovered that organisations that engage in data-driven practices are more likely to record better performance results. On the same note, McAfee and Brynjolfsson (2012) opined that the increasing accessibility of big data sets allows managers to base their decisions more on evidence-based analysis than on pure intuition-based decisions. The studies indicate that better accountability, less cognitive bias, and objectivity in organisational decision-making may be achieved through structured data analysis. Nevertheless, other studies focus on the still existing relevance of managerial intuition.

According to Dane and Pratt (2007), intuition refers to quick experience based judgement that does not

involve any conscious analytical thinking. They state that intuition is especially useful in the case, when it is represented by uncertainty, complexity, and time pressure. This process can also be explained by Kahneman (2011) dual-system theory that differentiates between analytical (System 2) and intuitive (System 1) thinking that has an effect on human decision-making. In this view, intuition is not unreasonable but it is a pattern recognition that is acquired out of experience. Although both the literature on the issue of data-driven decision-making and intuition is growing, numerous studies discuss the two in isolation.

Studies that are concerned about data usually focus on analytical reasoning, whereas studies about intuition emphasis experiential expertise. This discontinuity opens up a disjuncture in learning about the integration of analytical information and intuitive judgement in actual organisational contexts by managers. Besides this, most of the available empirical studies have been carried out in developed economies that have well developed technological infrastructure. Scant consideration has been given to emerging markets like India, in which organisational setting, provision of data, and management training might vary. The other critical aspect that has been discussed in the literature is information overflow.

According to Eppler and Mengis (2004), too much information may easily harm the effectiveness of decision making by exerting too much strain on the mind. In this scenario, managers can use intuition to a greater extent to reduce the complicated information setting. Considering these constraints, there is still the necessity of the empirical research, which will study the synergistic effect of the data use and the managerial intuition on the outcomes of the decisions. This gap is addressed in this study through investigating the manner in which managers trade off analytical and intuitive judgement and the effects of this interaction on perceived quality of a decision. The area of concern in the research is the professionals in India; therefore, the study offers context-related information on the managerial decision-making behaviour in the new organisational settings.

Research Objectives

The primary aim of the research is to analyse how the managers utilise data and managerial intuition in the decision-making process and the way these two aspects affect the perceived quality of the decisions made by the managers in the organisational setting. The study will seek to learn the comparative relevance of analyst and gut of making decisions in management. The objectives of the study are:

- To explore how much trust, managers have on data to make decisions.
- To examine how managerial intuition contributes to the process of decision making.
- To establish the correlation between the use of data and the perceived quality of decision.
- To establish the correlation between perceived decision quality and managerial intuition.
- To analyse the interaction effect of the use of data and managerial intuition on the quality of the decisions.

These are objectives that are congruent with the independent variables (data use and managerial intuition) and the dependent variable (perceived decision quality).

Research Methodology

The research design of this study is quantitative in nature in order to study the relationship between data use and managerial intuition and the perceived quality of a decision. A quantitative design has been chosen since it enables assessing variables systematically and testing the relationships between constructs

statistically. It is cross-sectional because the data was taken at one time only of the respondents. A structured questionnaire was utilized in the collection of primary data.

The target market comprised individuals of decision-making roles in different organizations in the business sector which included executives, assistant managers, managers and senior managers. They were limited to individuals who are directly involved in organisational decision-making. One hundred valid responses were collected. The sampling methodology was a purposive sampling plus decision to the purposive sampling, in order to make sure respondents possessed decision making responsibility, and convenience sampling because of ease of accessing the respondents in the type of professional and academic networks.

The questionnaire was divided into two parts and had 15 questions. The demographics section required demographics (age, gender, years of experience, and position) to be filled in. The second section was an assessment of the main research variables on a five-point Likert scale of strongly disagree (1) to strongly agree (5). Data use and managerial intuition were taken as independent variables whereas the perceived decision quality was the dependent variable. The analysis of data was done using descriptive and inferential statistics. Response patterns were summarised using descriptive statistics and the correlation analysis was done to investigate the relationship between variables. The multiple regression analysis was used to establish how far the data use and managerial intuition can predict the perceived quality of decisions.

Development of Hypotheses

The hypotheses of this study are formulated on the ground of the existing theoretical and empirical studies on managerial decision-making. Research into the concept of data-driven decision making suggests that a systematic application of quantitative data has the potential to make decision-making more objective, less biased and enhance organisational performance (Brynjolfsson, Hutt and Kim, 2011). Thus, the application of the structured data will have a positive effect on the level of decisions.

Meanwhile, managerial intuition has become a significant mental process in the uncertain and complicated context. According to Dane and Pratt (2007), intuition is judgement that is based on experience, which helps the managers to act in appropriate situations where the information is incomplete or not clear on certain issues. The same way, Kahneman (2011) dual-system theory reveals the dynamics between the analytical thoughts and unconscious judgement in decision making.

According to these views, the ability to reason analytically, as well as, to make judgements based on experience, are effective in decision making. On this theoretical basis the hypothesis proposed are as follows:

- H1: the relationship between use of data and perceived decision quality is positive.
- H2: There is a positive correlation between managerial intuition and perceived quality of decisions.
- H3: There is an interaction effect between data use and managerial intuition to perceived quality of decision making.

Data Analysis and Interpretation

This part contains the discussion of the responses received among 100 participants holding the positions of managers and decision makers. The analysis will also focus on the dependence of managers on data and managerial intuition and how these variables affect perceived quality of decision made.

Descriptive Analysis

General response patterns were summarised with the help of descriptive statistics. The average of Use of Data was 4.31 with the five-point Likert scale depicting that there is a high dependence on data in making managerial decisions. On the same note, Managerial Intuition gave an average of 4.29 which indicates that managers also heavily depend on judgement that is based on experience.

The average result of Perceived Decision Quality was 3.84, meaning that there is rather big confidence in the efficacy of managerial choices. The fact that the mean is slightly lower than the one of using data and intuition may indicate that other contextual variables might also be at play when perceived outcome of decision is concerned.

Table 1: Descriptive statistics

Variable	Mean	Standard Deviation
Use of Data	4.31	1.05
Managerial Intuition	4.29	0.76
Decision Quality	3.84	0.72

Source: Primary Data

In general, the descriptive findings validate that both managerial intuition and data use are the key elements in the modern managerial decision-making.

Correlation Analysis

Correlation Analysis Correlation analysis was used to test the strength and direction of the relationship between the independent variable (Use of Data and Managerial Intuition) and the dependent variable (Perceived Decision Quality).

The findings show that Use of Data and Decision Quality have a moderate positive relationship ($r = 0.36$). This implies that managers who use data to a greater extent are more likely to report the existence of the perceived decision effectiveness. Managerial Intuition shows a more positive correlation with Decision Quality ($r = 0.64$), which means that experience-based judgement is strongly related to perceived decision effectiveness.

Use of Data and Managerial Intuition was also positively correlated with a strong positive correlation ($r = 0.74$). This is an indicator that managers who are data driven tend to be intuitional in their approaches and therefore the analytical and intuition approaches do not necessarily oppose each other as decision-making tools but are used in combination with each other.

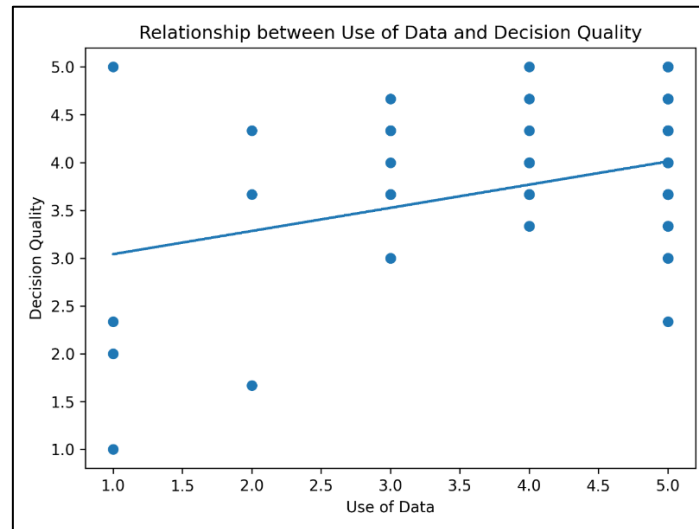
Table 2: Correlation matrix

Variable	Use of Data	Managerial Intuition	Decision Quality
Use of Data	1.00	0.74	0.36
Managerial Intuition	0.74	1.00	0.64
Decision Quality	0.36	0.64	1.00

Source: Primary Data

The correlation outcomes give preliminary evidence to the H1 and H2 hypothesis because the two independent variables have positive correlations with perceived decision quality.

Fig 1: Relationship between Use of Data and Decision Quality



Source: Primary Data

Regression Analysis

The multiple regression test was used to investigate the interactive relationship between data use and managerial intuition on perception of quality of decisions. This model was significant statistically and accounted 44.7 percent variance in the perceived quality of decision ($R^2 = 0.447$).

The positive and statistically significant impact of managerial intuition on the quality of decision was significant ($b = 0.795$, $p < 0.001$), and it was found that the more experience-based judgement is used, the more effective perceived decision is. It turned out to be the most powerful independent predictor of the model.

The data use coefficient was significant in value but negative ($b = -0.186$, $p = 0.017$). This does not mean that data lowers the quality of decisions. The analysis of correlation revealed that there was a positive correlation between the quality of decisions and data use ($r = 0.36$). The negative relationship between the data use and managerial intuition ($r = 0.74$) is probably the reason why the regression model gave a negative coefficient since the two variables may have overlapping effects in the outcome.

In general, both data use and managerial intuition are linked to quality of decisions and the managerial intuition showed a stronger independent effect when both variables are looked at as one.

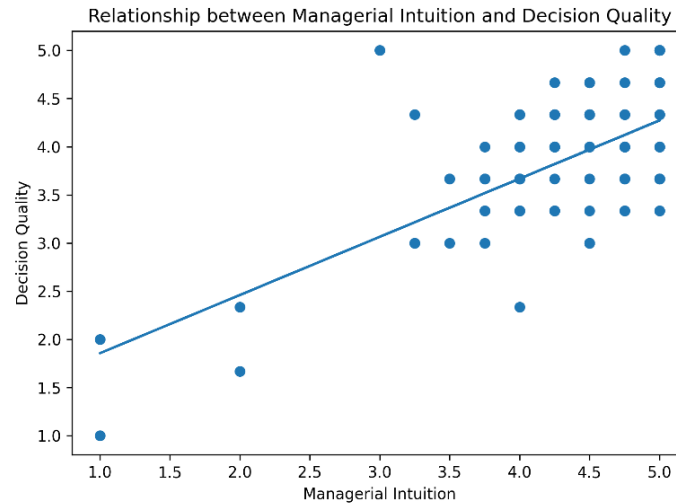
Table 3: Multiple regression results

Variable	Coefficient (β)	p-value
Constant	1.237	0.0001
Use of Data	-0.186	0.0174
Managerial Intuition	0.795	0.0000

Source: Primary Data

It is found that the results of the regression partially corroborate the suggested hypotheses. H1 is supported at the correlation level but the independent effect is less significant in the regression model. The support of H2 is high as there is a strong positive predictive effect of managerial intuition. H3 can be partly accepted and both variables have a joint effect on the quality of the decision, but the independent effect is shown to be stronger through intuition.

Fig 2: Relationship between Managerial Intuition and Decision Quality



Source: Primary Data

Interpretation of Findings

The results indicate that the decisions of the managers are based on data and managerial intuition, pointing to the fact that the current decision-making approach is a combination of analytical and experiential.

The outcomes of the correlation indicate that perception of the quality of decisions is positively related to data use, as well as to the use of managerial intuition. Regression analysis however reveals that when the two variables are analysed the managerial intuition has a stronger independent predictive value. As much as data is an analytical aid, experience based judgement seems to be more crucial in the interpretation of information and its use in situations that are complex to organisations. These findings suggest that managerial decision-making requires a combination of evidence, which is analytical, and the use of experiential judgement.

Suggestions

Organisations ought to promote moderate decision making methods that involve the integration of data analysis and management intuition. Because there is a positive correlation between data use and perceived decision quality, managers ought to be given correct and timely data that is facilitated by efficient data management systems and training in analytical processes. Meanwhile, the predictive power of managerial intuition is very high which emphasizes the role of experience-based judgement. To boost the intuitive abilities, organisations should thus encourage experiential learning, mentoring, and exposure to various situations of decision making.

Presentation of information must also be made clear in order to minimize cognitive overload. Through putting emphasis on both analytical evidence and experience, organisations are able to enhance managerial performance and decision making.

Conclusion

This paper has explored the use of data and managerial intuition information by managers in decision making and the role of this information in perceived quality of decision making. The results demonstrate that managers use analytical and judgement data which is based on experience. Correlation testing determined a positive association between the two variables and decision quality whereas regression testing observed that managerial intuition predicts more as an independent variable when both the variables are tested simultaneously.

These findings imply that there is evidence in favor of structured analysis, and intuition is a major contributor in information interpretation and its usage in complicated scenarios. Managerial decision making thus encompasses the combination of both analytical and experiential decision making. Even though the research works as it analyses both variables in the same framework in an emerging economy setting, shortcomings are based on the use of self-report data and a sample of 100 participants. The future study would involve an increase in the sample size and mixed-method techniques to examine the management decision-making behaviour further.

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DECISION FATIGUE IN THE DIGITAL AGE: A STUDY OF CHOICE OVERLOAD AMONG YOUNG ADULTS

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Abstract

In this fast-paced, digital age of choices, young adults have to make thousands of decisions in a day. From decisions about their studies and even their careers to social decisions to make. This paper examines the idea of decision fatigue and its effects. The inability to make logical decisions as a result of the associated mental tiredness is known as decision fatigue. These young people become exhausted, lose focus, and are unable to make logical decisions as a result of the constant rush of choices they must make throughout the day. The research study surveyed 102 participants using a quantitative and descriptive methodology to determine the degree of stress and exhaustion and how it affected their academic and professional performance. According to the findings, a significant portion of the population experiences moderate to severe cognitive strain. For instance, academic commitments (45.1%) and career or internship choices (50%) are identified by half of the respondents as the primary cause of stress. The correlation between mental fatigue and the total Decision Fatigue Index is confirmed by further statistical analysis ($r = 0.81$). This implies that people tend to make impulsive choices and are less productive as their mental strength dwindles.

The large majority of young adults rely on structured routines and prioritisation as a way of dealing with choice overload, as per further research studies on ways of coping. However, it is important to have institutional support. This paper concludes that the mental clarity and well-being of the individual are safeguarded by the use of conscious decision-making, management, and simplification of unnecessary cognitive complexity.

Introduction

We live in a world today where everything is quick, and we have a lot of choices. Besides going to school and planning for a career, kids also have to deal with their friends and the social world. All these tasks have really increased the number of decisions they have to make each day. Even though we associate having choices with being free and independent, making too many decisions can be quite mentally draining bit by bit. This is a kind of brain overload which people call decision fatigue, and which is manifest in a reduction in the quality of decisions after a long sequence of decision-making. Very often, people lose control over their behaviour whenever they have been mentally burdened for a long time. It actually leads to stress, fatigue, and less concentration and on top of that, they tend to make rash decisions or even just give up altogether.

Young adults aged 18 to 25 are also vulnerable to the effects of digital distractions because they are at a stage of their lives where they are experiencing a lot of changes. Apart from dealing with digital distractions, they also have to contend with their studies, internships, employment, relationships, and future career choices. Making decisions daily can cause mental fatigue that not only affects their emotional well-being but also their academic and decision-making performance.

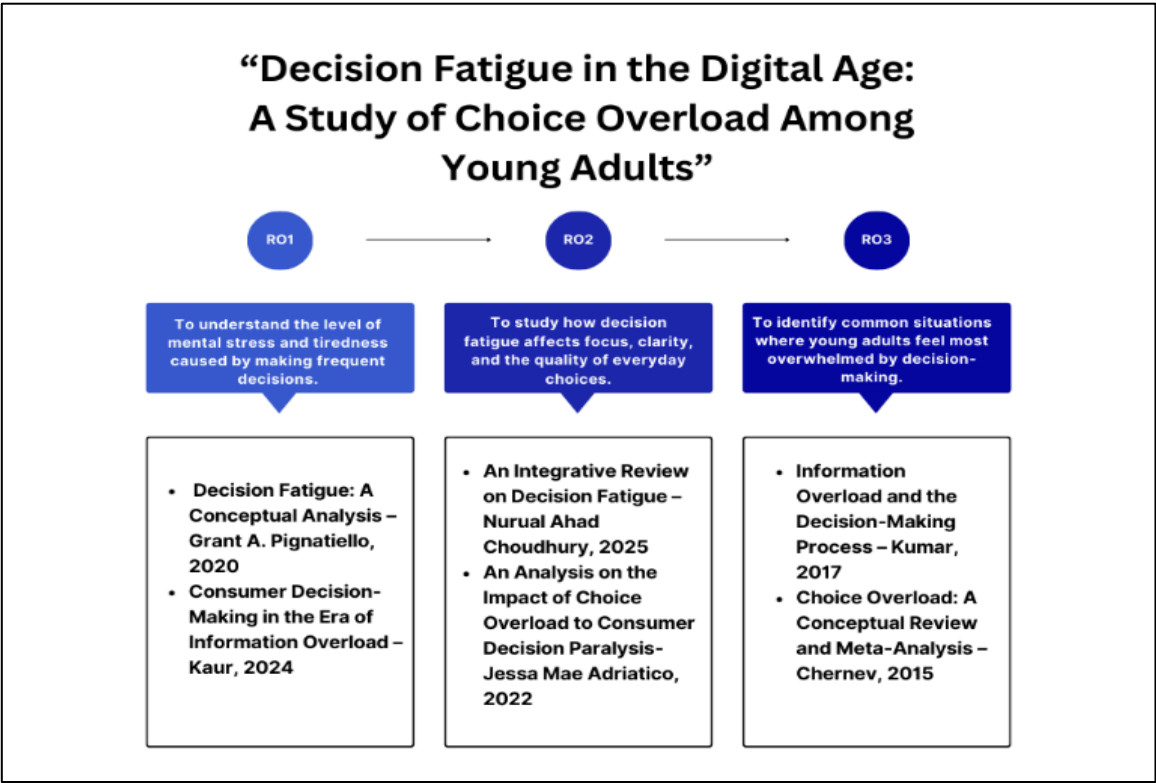
Previous studies have shown that mental exhaustion affects self-control and concentration, and causes individuals to make more impulsive or poor decisions. By understanding these dynamics, it is possible for educators, institutions, and even individuals to develop rational ways to deal with the working capacity of the brain. This study aims to establish the frequency at which decision-making causes mental stress and fatigue among young adults. Moreover, the study seeks to establish the role of decision fatigue in poor decision-making, lack of clarity, and loss of focus. It also focuses on the situations that cause a lot of decisions in people’s lives. Young people have to make a lot of choices every day in the world. Decision fatigue is when making good choices gets really hard because it takes a lot of willpower. Young people have to deal with decision fatigue. It affects the choices they make about their education and career choices, and it also affects their social lives. Decision fatigue is a problem that young people face every day.

Research Objective

- 1. To understand the level of mental stress and tiredness caused by making frequent decisions.
- 2. To study how decision fatigue affects focus, clarity, and the quality of everyday choices.
- 3. To identify common situations where young adults feel most overwhelmed by decision-making.

Review of Literature

Fig No. 1: Concept Map



Source: Self

The article goes in-depth about the process of how decision fatigue exhausts your brain, leaving you with less mental strength to control yourself. The article essentially states that if a person has to make decisions, their mental strength will be drained, and they will feel exhausted and stressed. The article describes how, because of exhaustion, it becomes difficult to control oneself, and the possibility of making wrong decisions increases. The authors state that having to make many decisions about school, work, and life in general can be very stressful. For those young people who are busy with many different responsibilities, it is clear that their minds get exhausted. This study has given a wonderful theoretical foundation for the explanation of decision fatigue caused by mental exhaustion. (Grant A Pignatiello, 2020)

The current article is relevant to the psychological stress of continuous cognitive tasks and decision-making under stress. It states that people, especially the younger generation, feel mentally drained because of continuous crucial decisions in their academic and professional lives. The study explains how being exposed to decision-making for a longer period of time increases the levels of anxiety and reduces mental freshness. It also explains how the emotional intensity of crucial decisions further raises the stress levels. The study concludes that the stress caused by decision-making is not only dependent on the number of decisions but also on their importance. This paper supports the objective of determining how often decision-making causes mental stress and fatigue. (Kaur, 2024)

This research establishes a direct relationship between mental depletion and the decline of one's focus, clarity, and judgment quality. It states that when a person's mental capabilities are depleted, he/she has difficulty devoting their full attention and arriving at a correct judgment of alternatives. Evidence from research reveals that decision fatigue is able to induce a person to think hastily, losing the ability to analyse and making poor decisions. Moreover, it emphasises the impact of the brain being overwhelmed with information on people's normal living, especially in those environments where there is a need for continuous concentration. For young people trying to balance their studies, work experience, and exposure to digital media, such symptoms are becoming increasingly apparent. The results have established a direct relationship between decision fatigue and the decline in the performance of the brain, and therefore are on track to explore its influence on concentration and mental clarity. (Nurual Ahad Choudhury, 2025)

The article is about how the plethora of options leads to confusion and indecisiveness. It discusses that an overload of options causes decision paralysis when individuals either keep delaying or do not make decisions at all. The authors reveal in their paper that satisfaction drops while mental effort rises with the increasing number of choices. Instead of empowerment, people may become stressed and feel uncertain. The research paper also discusses negative impacts on decision quality and emotional frustration as a result of choice overload. The article continues by giving examples of how academic and career choices for young adults can be just as demanding. The results of the study reflect the original thought that too many choices can increase decision fatigue and leave a negative imprint on daily decisions. (Jessa Mae Adriatico, 2022)

This meta-analysis analyses multiple studies on choice overload to psychological effects on human behaviour. The research adds that options can give people more freedom of choice, but at the same time, too many alternatives result in a higher level of stress, dissatisfaction, and cognitive strain. The article points out different situations, such as buying products, choosing courses at school and browsing the Internet, where people tend to be most overwhelmed by their decisions. On top of that, it states that a person's response to being overwhelmed by a large number of choices depends on factors like complexity and one's own expectations. For young adults, spending their educational and career paths, this kind of

overload of choices can greatly increase the stress of decision-making. This study deepens the theoretical basis by illustrating when decision fatigue reaches its peak. (Alexander Chernev, 2015)

The article describes how people today are always exposed to various demands and thus have to swallow more and more cognitive pressure. It points out that the mental overload of students, who want to do well at school, plan their future job and not forget their personal life, seems to be a real psychological problem. The focus of the article is on a young adult who, on the one hand, has to make several important decisions at the same time and, on the other, meets with frustration because of this. Some of the emotional stress that comes from making decisions is due to the fact that the priorities are not clear, and the fear of choosing the wrong path. Thus, the results led to the conclusion that decision fatigue in this case is not something that happens only once, but it builds up as a result of the constant exposure to stressful situations. This paper is in agreement with identifying the most common situations in which young people are most stressed by decision-making. (Kumar, 2017)

Research Methodology

This research work, mostly quantitative in nature, uses a descriptive approach to analyse how decision fatigue manifests and affects young adults. The research strategy is cross, sectional survey where data from 18-25 year olds, school students, undergraduate and postgraduate students, interns, freelancers, and working professionals is collected at one point in time. To get the personnel responses quickly and without much hassle, a convenience sampling technique was leveraged, where participants could be online and were thus given the link to the survey.

Primary data collection was done through a structured questionnaire developed and administered via Google Forms. The tool had a majority of closed-ended and multiple-choice questions, but to measure different aspects of mental state, like stress, cognitive fatigue, the sense of being overwhelmed, loss of concentration, hurried decision-making, making and subjective performance impact, there were also five-point Likert scale items. The study's primary independent variable was the decision-making rate. Mental stress, mental tiredness, mental exhaustion, a loss of focus, hurried decision-making, performance impact, and general decision fatigue were the dependent variables. The composite decision fatigue index (DFI), which measures the feeling of being overwhelmed, mental exhaustion, mental tiredness, focus deterioration, making rushed decisions, and performance impact, was calculated by taking the mean of the items selected from the Likert scale. A well-organised and quantifiable indicator of decision fatigue was made possible by the selection.

The data analysis was carried out using a variety of descriptive statistical techniques. The trend of responses and the degree of fatigue-related experiences were analysed using these, which included frequency distribution tables, percentages, mean, and standard deviation. Bar graphs and pie charts, which fall under the graphical method, were used to display the most important results. Moreover, to analyse the relationship between the variables related to fatigue and the overall Decision Fatigue Index, a Pearson correlation analysis was used. This analysis was used by the study to examine the level of associations between mental fatigue, exhaustion, feelings of being overwhelmed, loss of focus, rushed decisions, and performance impacts. The method of data collection offered a clear guideline for the process, and further, the analysis of decision fatigue among young adults in the digital age was presented in a significant way.

Data Analysis and Interpretation

A) Descriptive Analysis

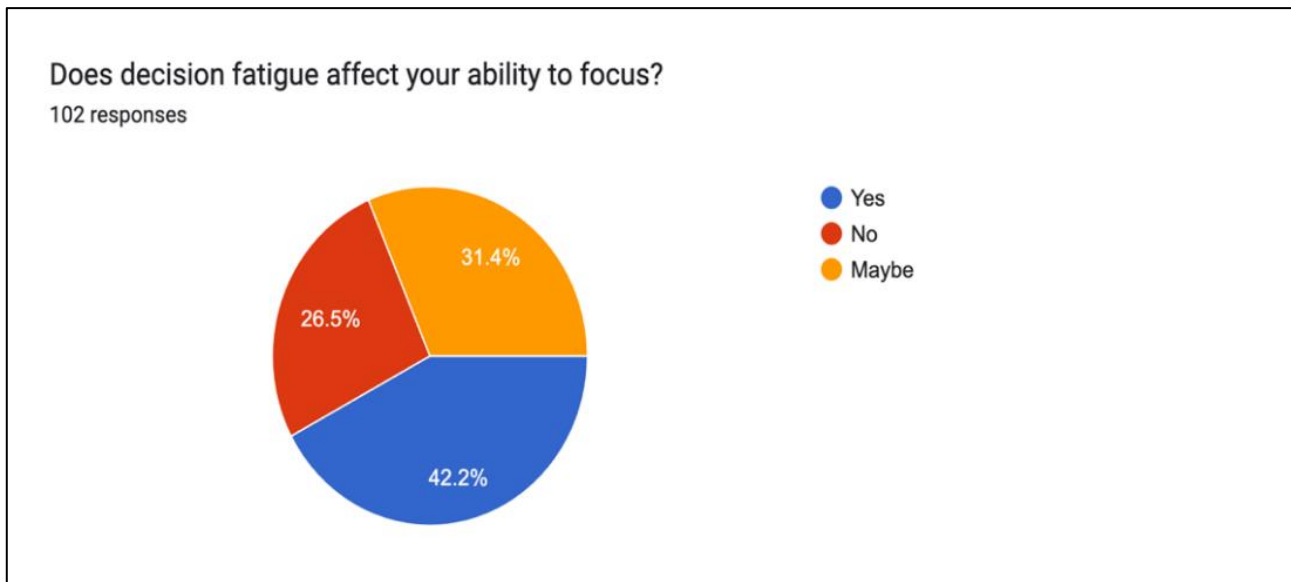
Fig 2: Does making frequent decisions leave you mentally tired?



Source: Self

The graph shows that the most common scale point selected is 3 (36.3%), followed by 4 (18.6%) and 5 (12.7%), indicating moderate to high levels of mental tiredness. The least selected scale points were relatively fewer, suggesting that the daily decisions affect mental tiredness. The graph shows that the frequency of decisions is an important determinant of mental energy.

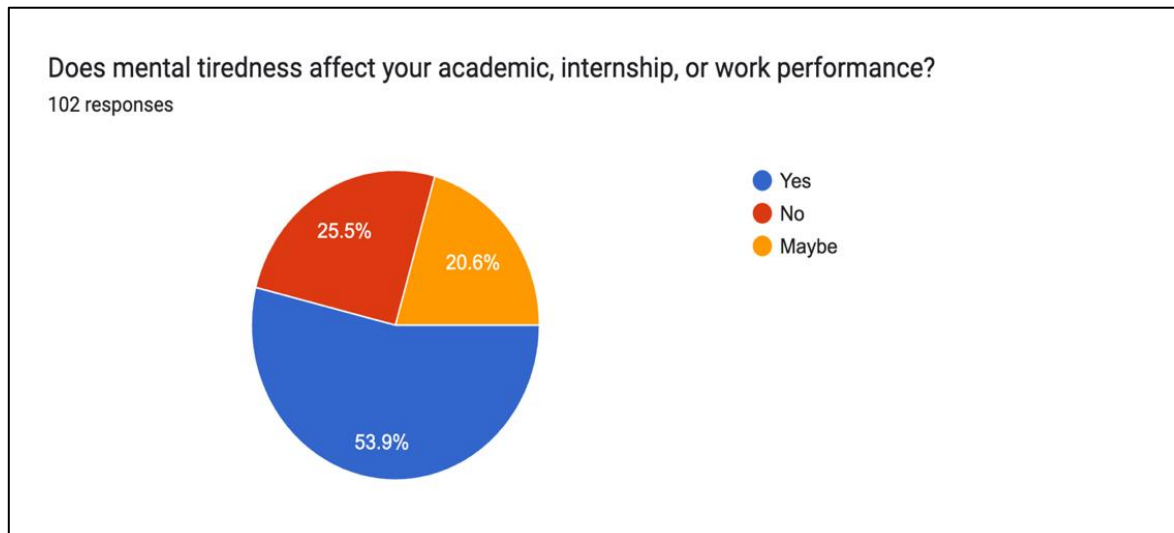
Fig 3: Does decision fatigue affect your ability to focus?



Source: Self

Although a smaller percentage of respondents disagree, it is evident from the pie chart that a significant majority of respondents believe that decision fatigue affects their ability to concentrate. Although the extent of the impact may vary depending on the situation, a significant portion of respondents selected the "Maybe" option, indicating the effect of decision fatigue on their ability to concentrate.

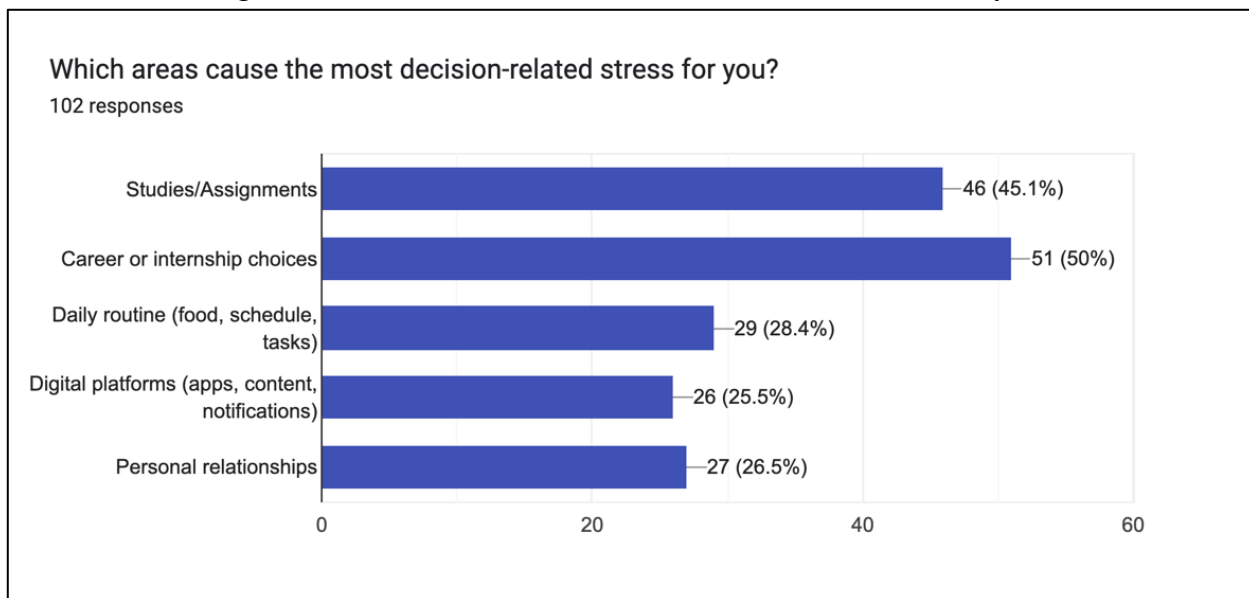
Fig 4: Does mental tiredness affect your academic, internship, or work performance?



Source: Self

Over half of the respondents indicated that mental fatigue impacts their academic, internship, or work performance. The significance of this finding is that it emphasises the implications of decision fatigue, which is directly related to decreased productivity and effectiveness.

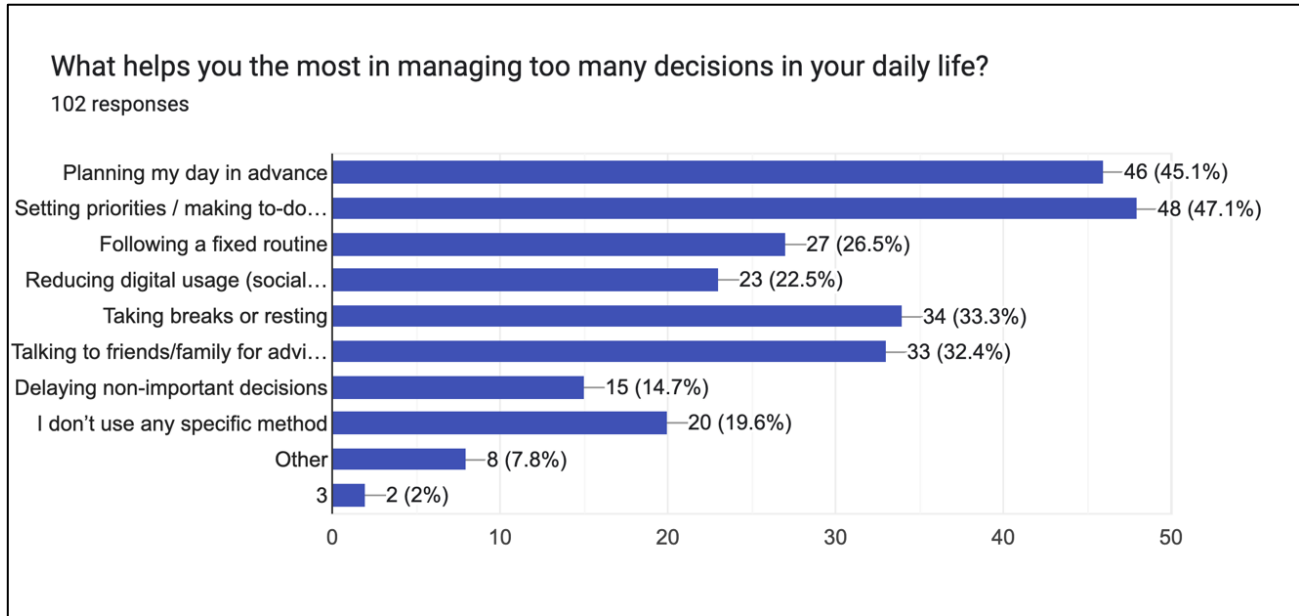
Fig 5: Which areas cause the most decision-related stress for you?



Source: Self

The bar chart reveals that career or internship decisions and academic commitments are the most stressful decision categories. Everyday life, technology, and interpersonal relations also make significant contributions to stressful decisions. This suggests that stressful decisions are mainly generated by high-stakes and future-oriented decisions.

Fig 6: What helps you the most in managing too many decisions in your daily life?



Source: Self

From the bar chart, it is clear that prioritising, making a to-do list, and day planning are the most frequently employed techniques. Taking breaks and seeking advice from others are also widely practised. Relatively fewer people practice procrastination and do not use any particular technique, which clearly indicates that people are making an effort to deal with decision overload.

B] Composite Decision Fatigue Index

Table 1: Composition Decision Fatigue Mean and Standard Deviation

Variable	No.	Mean	Standard Deviation
Decision Fatigue Index	102.00	2.65	0.70
Female	54.00	2.72	0.71
Male	45.00	2.60	0.67
Other	3.00	2.00	0.73

Source: Self

The results indicate that the average Decision Fatigue Index of respondents is at a moderate level, with an average score of 2.65 (SD = 0.70) out of 102 participants. Females (mean = 2.72) indicate slightly more decision fatigue than males (mean = 2.60), which means that they might feel a little more mental strain in decision-making. The "Other" group had the lowest average (2.00); however, the number of participants is very small (n = 3), so the score is of limited reliability.

C| Pearson Correlation

Table 2: Pearson Correlation

Column1	Overwhelmed	Mentally Exhausting	Mentally Tired	Focus Affected	Rushed Decisions	Performance Affected	Decision Fatigue Index
Overwhelmed	1.00	0.42	0.54	0.23	0.29	0.25	0.69
Mentally Exhausting	0.42	1.00	0.56	0.18	0.24	0.43	0.74
Mentally Tired	0.54	0.56	1.00	0.31	0.39	0.42	0.81
Focus Affected	0.23	0.18	0.31	1.00	0.51	0.39	0.58
Rushed Decisions	0.29	0.24	0.39	0.51	1.00	0.28	0.61
Performance Affected	0.25	0.43	0.42	0.39	0.28	1.00	0.65
Decision Fatigue Index	0.69	0.74	0.81	0.58	0.61	0.65	1.00

Source: Self

1. Strong relationship between Mentally Tired and Decision Fatigue Index ($r = 0.81$)

This is the strongest relationship in the data set. This shows that as mental tiredness rises, overall decision fatigue rises considerably. Mental tiredness is shown to be the most important factor that contributes to decision fatigue in the respondents.

2. Strong relationship between Mentally Exhausting and Decision Fatigue Index ($r = 0.74$)

Mental exhaustion in decision-making is a strong predictor of overall decision fatigue. This shows that mental fatigue due to repeated cognitive activity is a strong predictor of decision fatigue.

3. Strong relationship between Overwhelmed and Decision Fatigue Index ($r = 0.69$)

This shows that people who feel overwhelmed by the number of choices available tend to have higher levels of decision fatigue. This is a strong predictor of choice overload and its effects on decision fatigue.

4. Moderate to Strong relationship between Focus Affected and Rushed Decisions ($r = 0.51$)

This shows that when focus is affected, people tend to make rushed or poor decisions. This is a strong predictor of how decision fatigue affects decision-making.

Recommendations

On the basis of the results, it can be concluded that decision fatigue is a serious issue among young adults. Since mental fatigue is found to be strongly related to focus, hurried decisions, and overall performance, some concrete steps should be taken to minimise unnecessary cognitive load.

On an individual basis, young adults should be advised on how to follow structured activities, use prioritisation techniques, and execute effective planning techniques. Decision fatigue can be considerably reduced by dividing difficult decision-making into easier tasks, avoiding interactions with unimportant options, and limiting exposure to digital media. To assist students in overcoming obstacles in their academic and professional lives, educational institutions can offer training sessions on time management and decision-making.

Establishing a supportive environment that can reduce preventable decision fatigue should be a priority for organisations and workplaces at the management and policy levels. The stress brought on by constant decision-making can be significantly reduced by implementing policies, internship programs, academic counselling, and streamlined administrative procedures. Decision fatigue can also be lessened by setting flexible deadlines and providing readily available mental health support networks.

In addition to these considerations, the digital platform aimed at young people should have user interfaces that are easier to use and refrain from employing complex choice architectures that might lead to decision fatigue. In order to guarantee the inclusion of early intervention strategies, education policymakers can play a crucial role in raising awareness of decision fatigue and mental health concerns.

Conclusion

The study will focus on exploring the prevalence and impact of decision fatigue in the digital age among young adults in particular, and the link between frequent decision-making and the occurrence of mental fatigue, lack of concentration, quick decision-making, and performance problems. The findings indicate that a high proportion of the participants are experiencing moderate to high degrees of mental exhaustion owing to the irrepressible need to make decisions in academic, employment and personal environments. The findings are also supported by correlation analysis, where the correlations between mental fatigue and associated variables, including lack of focus, rushed decision-making, and performance problems, are significantly positive. It should be mentioned that mental exhaustion is one of the most significant variables, which is considerably correlated with the overall Index.

The other notable conclusion of the research is that career and academically related choices are one of the biggest stressors among young adults. In this modern environment of high globalisation and connectivity, individuals have to experience an overload of information and social media comparisons, and thus, it is challenging to cope with the demands and pressures of daily life. The results of the paper disclose that decision fatigue is not merely a stress in life choices but a stress in daily choices, as well as online behaviour.

Nonetheless, the research also indicates that there are positive behavioural changes in young adults. Most of the respondents had mentioned stress-coping strategies like planning their day, making priorities and attempting to simplify their lives.

Decision fatigue is one of the new psychological and behavioural tendencies among young adults. Otherwise, it may have enormous consequences on their concentration, decision-making, and performance. So, the need of the hour is a personal self-regulation strategy, an institutional support structure and structural intervention. They can maintain cognitive clarity, increase productivity and safeguard their well-

being by reducing redundant complexity, and helping young adults to make decisions in an organised manner in a world that is becoming more and more characterised by choice.

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STARTUP DREAMS TO SILENT DROPOUT: WHY STUDENTS DON'T START THE BUSINESS THEY WANT

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Abstract

This research paper looks into the discrepancy between the entrepreneurial intention and the actual startup initiation among college students. The research cites the main psychological and institutional obstacles like the lack of guidance, the lack of mentorship, and fear of failure as the barriers to entrepreneurial action using primary survey data and correlation analysis. Students have excellent clarity of ideas and confidence, but there are low execution levels. The paper presents a conceptual framework that points out the importance of the support-based ecosystem on bridging the intention action gap.

Introduction

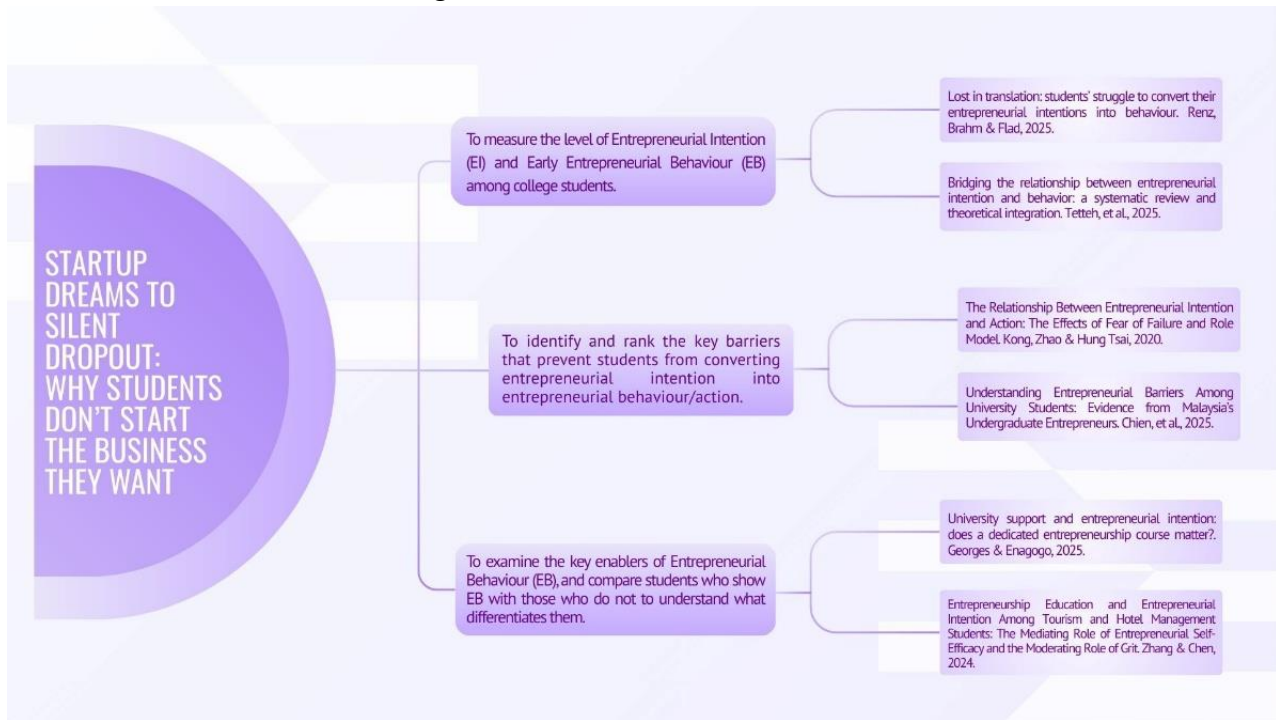
Independent thinking and the desire to be an entrepreneur is the dream of many students. However, few of them convert these ambitions into real businesses. This study investigates the intention-action gap and the relevant factors and obstacles at the personal, social, and institutional levels that silently encourage a wannabe student entrepreneur to give up their start-up dreams.

Research Objectives

1. To assess the degree of Entrepreneurial Intention (EI) and Early Entrepreneurial Behaviour (EB) in college students.
2. To determine and rank the most influential barriers that hinder the conversion of entrepreneurial intention into entrepreneurial behaviour/action.
3. To explore the major enablers of the Entrepreneurial Behaviour (EB) and compare students with EB and those without to determine what makes them different.

Review of Literature

Fig 1. Literature of Review Structure



Source: Self

The research paper examines the problem of student entrepreneurship research repeatedly demonstrating an intention-behaviour gap in which many studied students express high levels of entrepreneurial intention (EI) but fail to complete early entrepreneurial behaviours (EB). The Theory of Planned Behaviour (TPB) describes EI in terms of attitudes, norms, and perceived behavioural control (PBC) but it has been found that TPB can predict intention better than behaviour when perceived control falls short of actual constraints. Earlier research highlights opportunity recognition as an important initiator that facilitates the transformation of EI to EB, and students feeling not adequately able/have time can inhibit action even when motivated. Evidence on procrastination is also inconclusive and could be influenced by stage and creativity effects. Thus, the current research is a test of the opportunity recognition and perceived capacity, combined with PBC and procrastination, in explaining the failure of EI to become EB in students. (Renz, et al., 2025)

The analysis shows that current research on transforming the entrepreneurial intention (EI) into entrepreneurial behaviour (EB) is incomplete and divided. The study finds three significant gaps through a systematic review of 40 empirical studies with framework PRISMA 2020. First, theoretical methods are still polarized and do not consider psychological, social and contextual variables. Second, there are still methodological constraint as they overuse student samples and cross-sectional surveys. Third, real-world aspects like digital disruption, environmental uncertainty, and serendipitous opportunities are usually ignored as critical ones. In order to fill these gaps, this study suggests a multi-layer model that incorporates the personal attitudes, social networks, and institutional support, which would be appropriate in the situation of the post-pandemic. The results also outline the necessity of longitudinal and mixed-method research designs and wider samples than the students of universities because intention-to-action patterns can be markedly different across the populations. (Tetteh, et al., 2025)

This paper has examined the reasons why certain students who have the desire to start a business do so, and others do not. It analysed survey findings of 1,865 Chinese university graduates to conclude that

entrepreneurial intention does not necessarily translate into actual action. The fear of failures intervenes and undermines the intention-to-action relationship particularly in situations where students are afraid of losing money. Conversely, intention is easy to convert into action when one has a business role model (someone he or she admires in the business). Role models also appear to minimize the fear of failure, which indirectly stimulates students to become entrepreneurs. The key conclusion: in case universities want to make students start-ups more frequently, they should assist students to overcome fear of failure and show them powerful, familiar role models. (Kong, et al., 2020)

The paper interprets the major barriers to converting entrepreneurial intentions to real start up activities by university students. Based on empirical survey findings on undergraduate entrepreneurs, the study is able to identify key structural constraints like financial constraints, inadequate resource accessibility, weak institutional support and the absence of mentorship. Psychological obstacles such as fear of failure and low self-efficacy were also identified to be a major impediment to entrepreneurial action. The paper concludes that although students are highly interested in entrepreneurship, the constraints of the ecosystem and the issues of confidence significantly limit the ability to launch and maintain a venture. (Chien, et al., 2025)

This paper analyses the effect of university support on entrepreneurial intention (EI) of the students by stating that most literature does not differentiate between cognitive and non-cognitive support. Based on a sample of 2,259 students and Structural Equation Modelling, the data indicates that when students have not taken an entrepreneurship course, non-cognitive support has a positive effect on the perception of cognitive support and self-efficacy. Cognitive support directly increases self-efficacy in course-taking students. Self-efficacy mediates the connection between perceived university support and EI in both samples, mediating completely non-cognitive support of non-beneficiaries and cognitive support of beneficiaries. The research would be relevant to SCCT and TEE and proposes universities to provide both types of support more forcefully in order to attain entrepreneurial confidence outside business majors, with future studies needed to test such relationships across nations and to correlate support with actual entrepreneurial behaviour. (Georges & Enagogo, 2025)

The study hypothesized the relationship between entrepreneurship education (EE) and entrepreneurial intention (EI) in students by developing entrepreneurial self-efficacy (ESE) and with the consideration of grit. Based on survey data of 758 tourism and hotel management students in China, the findings indicated that EE is positively related to EI and that ESE partly mediates this relationship EE increases EI in part by raising the confidence of the students in their entrepreneurial capabilities. Grit also reinforces this: more ESE is acquired by higher-grit students on EE, and further contributes to greater EI. The research makes several recommendations to Universities to increase EE in major courses and to develop supportive learning programs that build ESE and grit, with the future studies able to validate the model in the international setting and using more diverse samples. (Zhang & Chen, 2024)

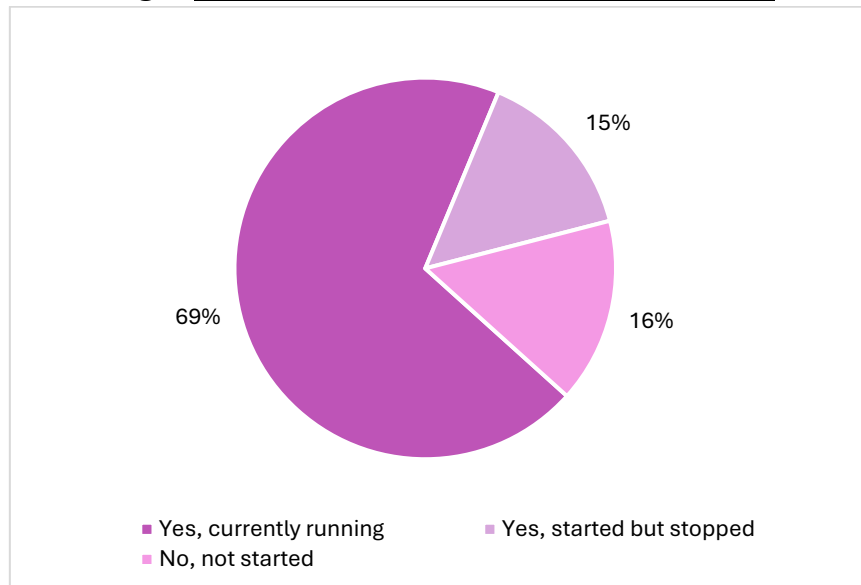
Research Methodology

The research design was a quantitative study, in both primary and secondary data. A structured questionnaire was used to gather primary data on 101 university students aged between 17-25, in various institutions and academic streams, by use of convenience sampling. Academic journals, research papers, books, and other reliable online sources were used in obtaining secondary data. Descriptive statistics, graphical analysis and correlation analysis were used to analyse the data.

Data Analysis

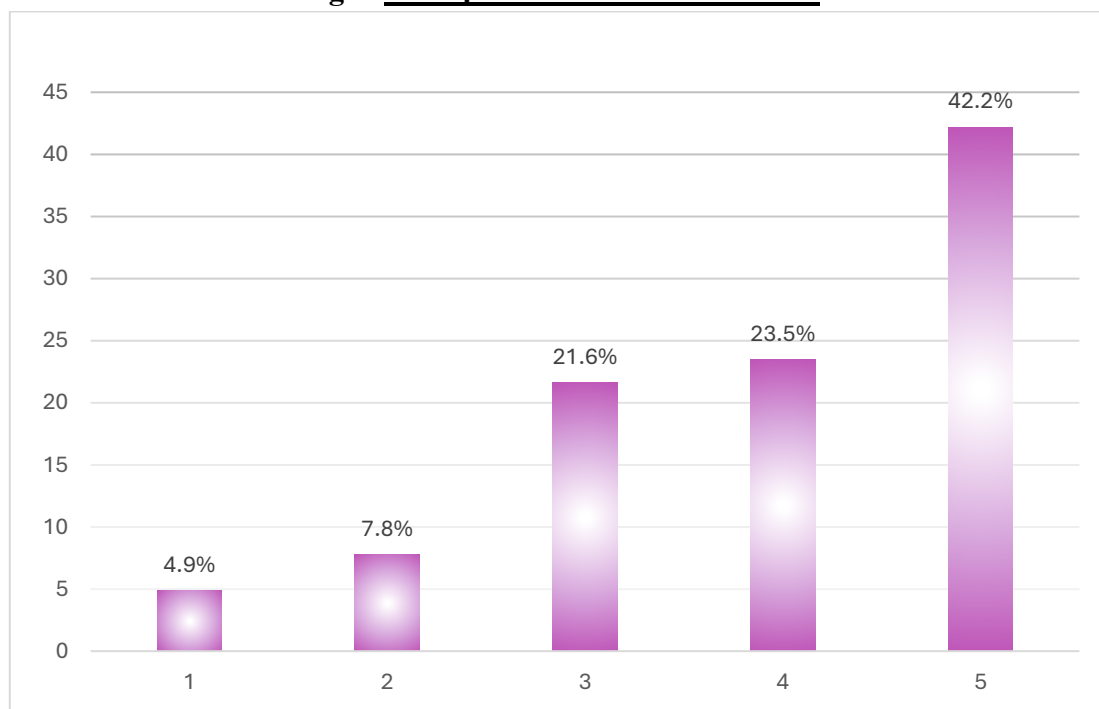
The first objective is to know the degree of entrepreneurial intention in college students and whether this intention is implemented in the start-up initiation. The graphs below show the start-up status, workability of the idea, and time of starting a business among the students and this gives an insight into the gap between the ambition of an entrepreneur and taking action.

Fig 2. Start-up Initiation Status Among Students



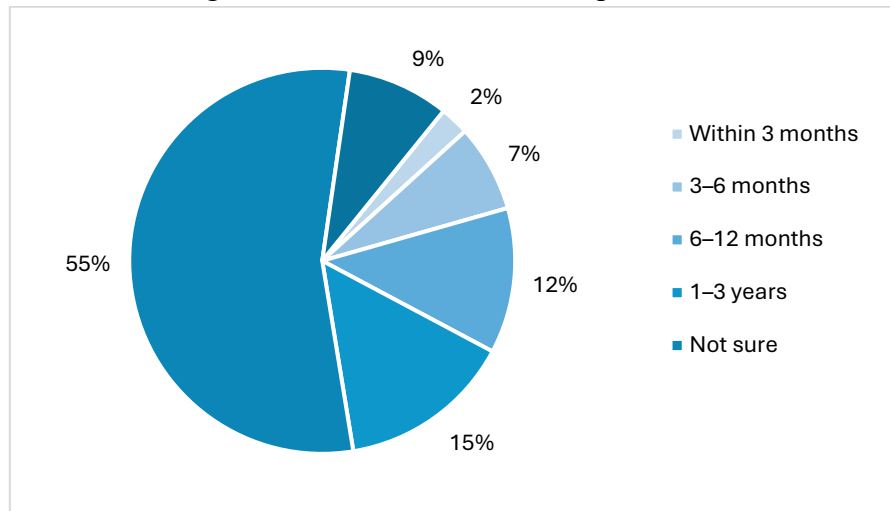
Source: Primary Data

Fig 3. Entrepreneurial Idea Readiness



Source: Primary Data

Fig 4. Students' Intended Start-up Timeline

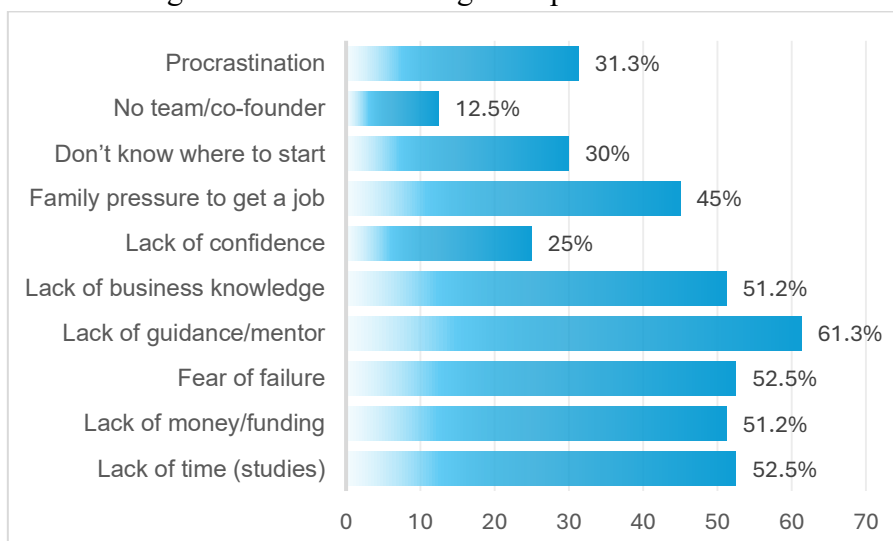


Source: Primary Data

Actual entrepreneurial engagement is low with **69.3%** (Fig 2) of students not having yet started any business, startup, or side hustle. **Strong entrepreneurial intention** and idea clarity among students can be seen as more than **65%** (Fig 3) of respondents report having a clear business idea that they would like to pursue. Nevertheless, **54.3%** (Fig 4) have **hesitation and delayed** action, indicating that they are not sure when they are going to start business, even though they have clear ideas. The trend shows an evident **intention-action gap**, in which there are great entrepreneurial ambitions on paper, but which have not yet been transformed into tangible start-up formation, illustrating the necessity of systematic direction, mentorship, and institutional assistance.

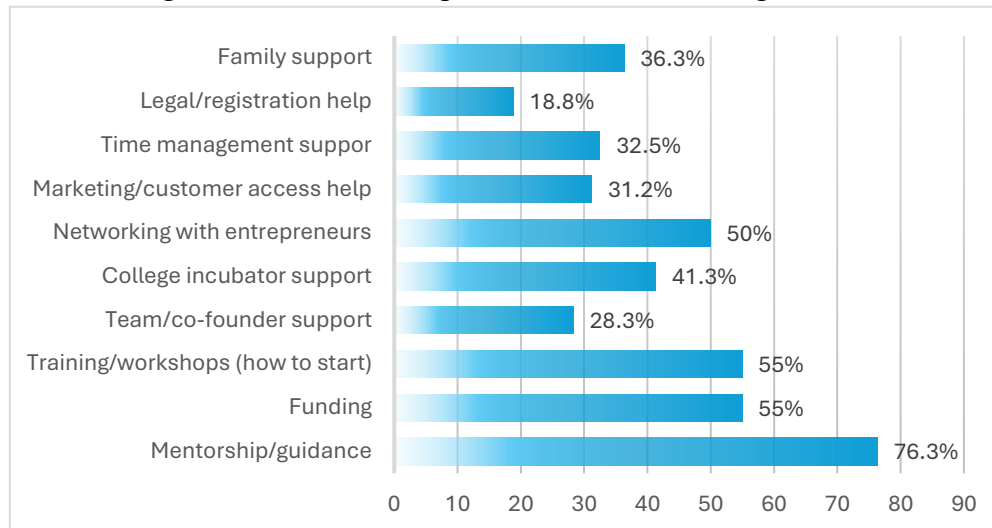
The second objective is to discover the most significant obstacles that stop students to assume entrepreneurial action as well as the support systems that may help them to overcome these obstacles. The graphs below explore the barriers to students as well as the enablers that are likely to lead to the launch of the startup, the disproportion between the entrepreneurial intention and the presence of efficient support systems.

Fig 5. Barriers Preventing Entrepreneurial Action



Source: Primary Data

Fig 6. Enablers of Entrepreneurial Action Among Students

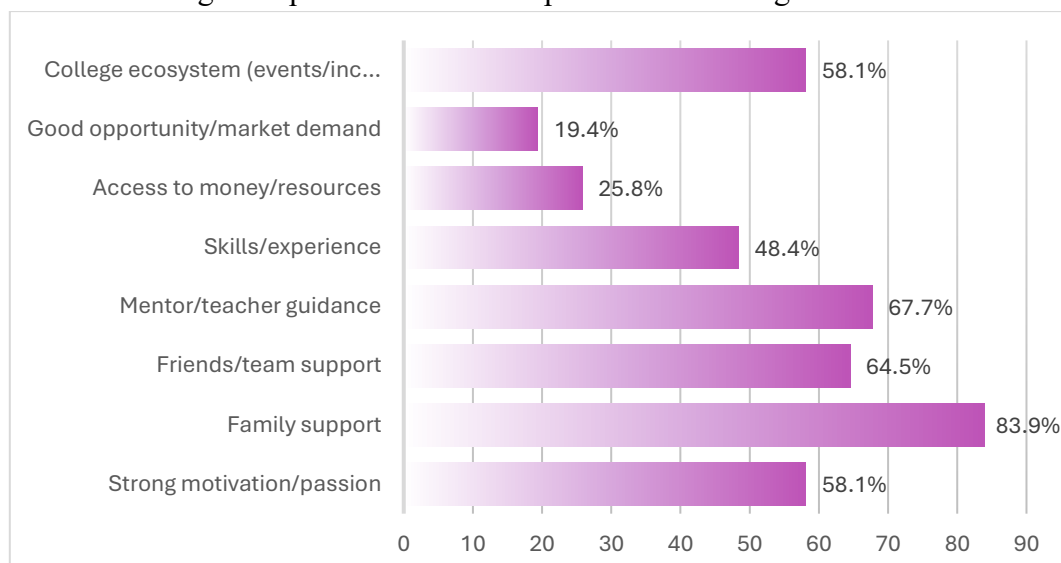


Source: Primary Data

The most common obstacle to starting a business identified by **60.8 %** (Fig 5) of students is the **lack of guidance/mentorship**, an outcome that is followed by fear of failure (53.2 %), inadequate time (53.2 %) by studies, and insufficient funding (51.9 %), meaning that both psychological and structural factors are the barriers to taking entrepreneurial action. By comparison, **77.2 %** (Fig 6) of students indicate that they would take action with the help of mentorship/guidance, funding (55.7%), training or workshops (54.4%), and indicate that the lack of support systems is the key limiting factor to the intention-action gap and delayed startup creation, and not a lack of interest or idea.

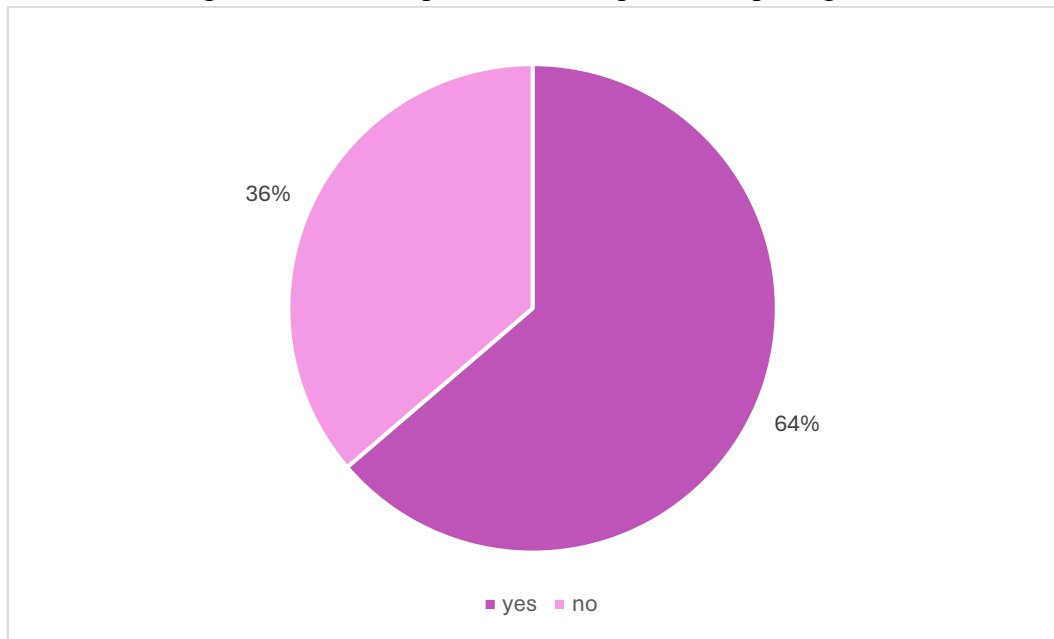
Objective 3 explores the factors that influence students who have taken action to establish a business such as support systems that facilitated the initiation and the action taken. The following graphs illuminate important enablers, including social support, mentorship, institutional exposure, and early-stage entrepreneurial activities, which give an indication of what makes students go beyond the intention to actual business action.

Fig 7. Top Enablers of Startup Initiation Among Students



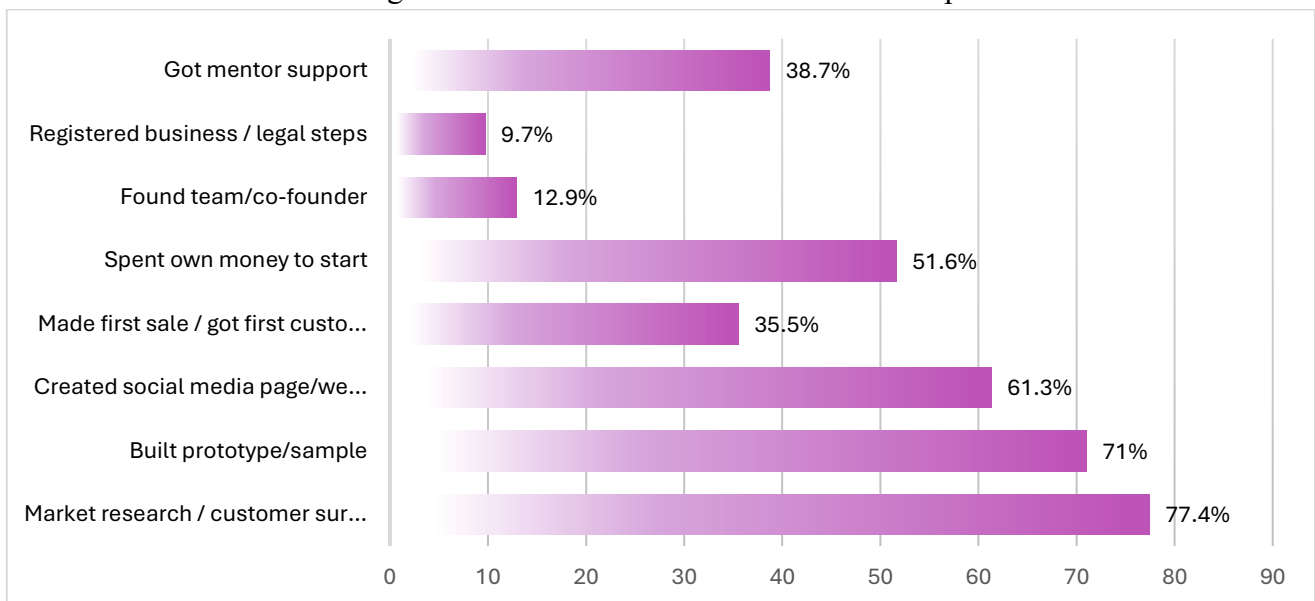
Source: Primary Data

Fig 8. Students' Exposure to Entrepreneurship Programs



Source: Primary Data

Fig 9. Actions Taken Toward Business Startup



Source: Primary Data

Family support is the strongest factor able to start a business with 83.9 % (Fig 7) of students indicating followed by mentor/guidance (67.7 %) and friends/ team support (64.5 %), which are also important areas of influence of social and emotional support systems. Moreover, 58.1% (Fig 7) note motivation, passion, and support of the college ecosystem as factors, and access to money or resources (25.8 %) seems to be relatively less significant. Entrepreneurial exposure is also supportive with 64.4% (Fig 8) of students attending entrepreneurship-related programs. Performance-wise, the majority of students carried out market research (77.4%) and created prototypes (71%), yet much fewer reached to first sales (35.5 %) (Fig 9), which suggests challenges in later stages of start-up implementation.

Correlation Analysis

Fig 10. Correlational Table

	Started	Idea Clarity	Confidence	Training Attended	Steps Count	Barrier Guidance	Help Mentorship	Barrier Fear	Start Uncertain
Started	1.00	0.13	0.10	0.23	-0.19	-0.41	-0.50	-0.26	-0.23
Idea Clarity	0.13	1.00	0.60	0.34	0.34	0.27	0.01	0.16	0.06
Confidence	0.10	0.60	1.00	0.27	0.37	0.03	-0.11	0.05	0.16
Training Attended	0.23	0.34	0.27	1.00	0.13	0.05	-0.08	-0.03	0.11
Steps Count	-0.19	0.34	0.37	0.13	1.00	0.38	0.31	0.33	0.23
Barrier Guidance	-0.41	0.27	0.03	0.05	0.38	1.00	0.53	0.39	0.05
Help Mentorship	-0.50	0.01	-0.11	-0.08	0.31	0.53	1.00	0.47	0.31
Barrier Fear	-0.26	0.16	0.05	-0.03	0.33	0.39	0.47	1.00	0.14
Start Uncertain	-0.23	0.06	0.16	0.11	0.23	0.05	0.31	0.14	1.00

Source: Primary Data

Started vs Help Mentorship ($r = -0.50$) The negative correlation is high, which means that the students who have not yet started a business are more in need of mentorship, and the lack of guidance is one of the primary obstacles preventing them.

Started vs Barrier Guidance ($r = -0.41$) A moderate negative relationship shows that perceived lack of guidance reduces the likelihood of startup initiation, emphasizing the importance of institutional support.

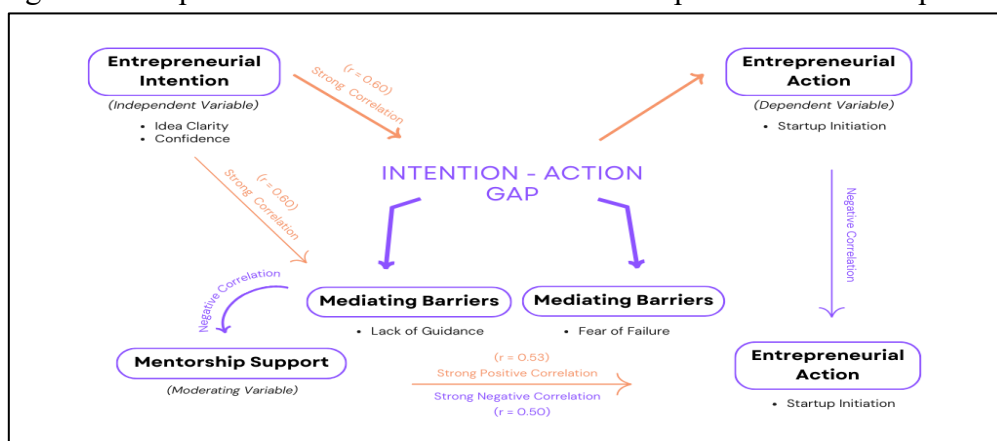
Confidence vs Idea Clarity ($r = 0.60$) The positive correlation is strong enough to indicate that better business ideas are followed by confidence, but confidence alone is not enough to ensure startup action.

Barrier Guidance vs Help Mentorship ($r = 0.53$) The strong positive correlation among the students who experience some barriers in guidance, proves the significance of mentorship in the ecosystem.

Barrier Fear vs Started ($r = -0.26$) A weak to medium negative correlation suggests that the fear of failure does not encourage the initiation of a startup, but it's impact is less compared to structural barriers.

Framework & Recommendations

Fig 11. Conceptual Framework: Intention-Action Gap in Students Entrepreneur



Source: Self

The given conceptual model can be used to understand the difference between entrepreneurial intention and real start up initiation among college students. The framework starts with the entrepreneurial intention which is expressed through the clearness of ideas and confidence. The correlation analysis reveals that there is a strong positive correlation between idea clarity and confidence which suggests that students who have clear business ideas are more likely to have a feeling of confidence regarding entrepreneurship.

Nevertheless, a high intention does not lead to startups by many students hence an intention-action gap. Mediating barriers such as a lack of guidance and fear of failure affect this gap. The correlation outcomes reveal that all these barriers are negatively correlated with the startup initiation, such that those students who encounter such barriers are less likely to initiate a business.

Mentorship support is an essential moderating factor in the paradigm. Closer negative relationship between mentorship requirement and initiation of a business implies that students who have not already started a business are highly aware of the lack of mentorship. Also, the correlation between the absence of guidance and the need to be mentored is rather positive, which contributes to the significance of systematic mentorship. On the whole, the framework shows that despite the need in intention, ecosystem support and readiness of the psychology are key factors that define entrepreneurial action.

Recommendations

1. **Institutional Mentorship Programs** - To minimize barrier to guidance, colleges ought to develop organized mentoring programs between the students and entrepreneurs, industry experts and startup mentors.
2. **Entrepreneurship Support Cells** - Specific incubation cells and units providing startup support should be reinforced to offer guidance on a continual basis since the time when the idea was validated to the actual implementation.
3. **Fear Reduction Through Experiential Learning** - Fear of failure among the students can be curbed through practical exposure in the form of live project, simulating start-ups, and sharing of failures among the students.
4. **Confidence Building Through Skill Development** - Students can be more confident and ready by various workshops devoted to business planning, customer validation, and execution skills.
5. **Early-Stage Guidance Rather Than Only Funding** - The advisory and handholding support should be the most important help offered by an institution at the initial stages because mentorship and guidance are stronger areas than financial aid.

Conclusion

This paper aimed at investigating why a good number of college students, despite their good entrepreneurial intentions, never start the businesses they wish to establish. The results indicate clearly that there exists a high level of intention-action gap in student entrepreneurship. Although a significant share of students shows clarity of ideas and confidence, few can translate such intentions into startup action.

The primary data analysis with the help of the correlation results shows that the institutional and psychological barriers are more decisive than the lack of the motivation or ideas. Some of the factors that

demonstrate a high negative correlation with startup initiation include lack of guidance, absence of mentorship, and fear of failure. By comparison, intention-based variables, including idea clarity and confidence, have strong correlations among themselves, but weak correlations with actual entrepreneurial action. This implies that the entrepreneurial preparedness in itself will never be sufficient without proper support in the ecosystem.

The given conceptual framework also outlines this phenomenon by placing guidance and fear of failure as intermediate obstacles and mentorship as an important moderating variable in the intention-action gap. The results support the current literature according to which not only individual intention, but environmental and institutional conditions also influence the entrepreneurial behaviour.

Finally, the research paper notes that to promote student entrepreneurship, it is important to do more than promote the generation of ideas. Colleges and universities should concentrate on creating enabling entrepreneurship ecosystems with organized mentorship and hands-on exposure as well as psychological support systems. The filling of these gaps can go a long way in improving the capability of the students in translating entrepreneurial intentions into sustainable startup programs, hence decreasing the silent entrepreneurial dream leakage.

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PREPARING FOR LUXURY: EVALUATING SKILLS AND COMPETENCIES IN BRAND MANAGEMENT EDUCATION

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Abstract

The international luxury market has expanded its operational base during the past decade while developing advanced strategic business practices. Luxury brands now operate in competitive international markets because digital transformation and sustainability concerns and consumer behavior changes have reshaped the market and its business environment. Most cases of luxury branding show that it exists as an extension of general marketing education instead of functioning as an independent academic field. The research investigates whether the luxury industry requirements and current marketing programs create a structural mismatch and whether establishing luxury branding as an exclusive program will produce graduates who have better job prospects.

The study implements a mixed methods research approach. The research has been conducted through secondary analysis, by reviewing current academic literature and performing a systematic analysis of postgraduate programs that offer luxury studies across institutions with a global presence.

The survey results show that students support the establishment of a dedicated postgraduate pathway with moderate to strong backing. The research demonstrates that luxury branding has developed into an essential professional domain which maintains academic uniqueness thus it requires proper examination as an interdisciplinary postgraduate program throughout contemporary higher education institution.

The study provides timely results because it supports higher education curriculum development discussions while it shows the need to update academic systems so they can keep up with fast-evolving international business demands. The paper presents a systematized foundation for evaluating whether the discipline should receive formal recognition based on its academic value and professional benefits.

Introduction

The global luxury industry has been growing at a steady pace throughout the past decade. The market has developed into one of the most active and complicated business environments among international markets.

Luxury brands operate their businesses across multiple sectors including fashion and cosmetics and automobiles and hospitality and jewelry and lifestyle products. The company serves customers who want exclusive products that showcase their heritage and special symbolic value. While mass market brands

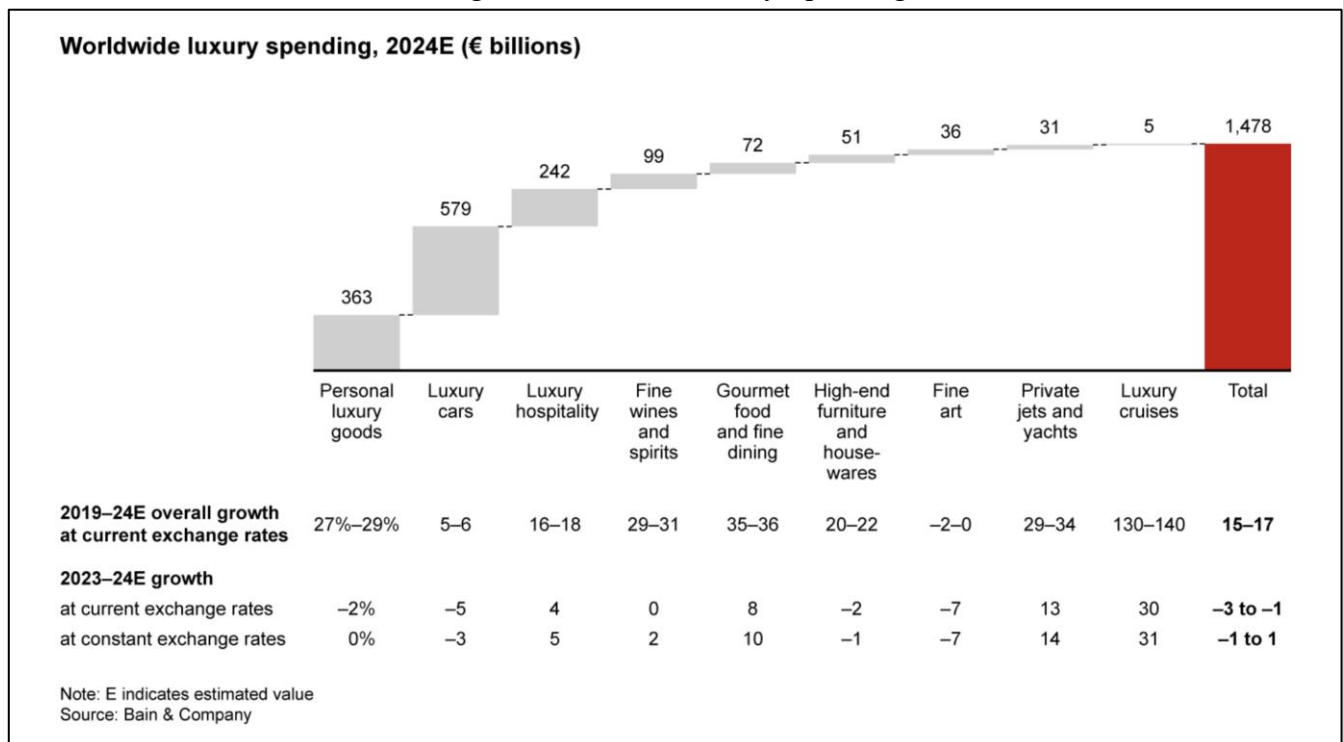
compete through price and distribution, luxury brands succeed through their high status and exceptional craftsmanship and ability to create emotional bonds with customers. Luxury companies have employed the special strategic approach that has allowed them to retain the value of their brand even in cases of an economic crisis.

Recent market research conducted in the industry indicate that the luxury market of the world will keep expanding, especially in the developing markets and among younger clients. Digital transformation has entirely changed the way in which luxury brands communicate with the customers and build their brand name. The issue of sustainability has also generated consumer demands on companies to be morally sound in their sourcing and manufacturing practices. Luxury brand managers are no longer required to do what the traditional marketer does. The new managers should know about brand narrative and experience design and the global retail systems and digital strategy and sustainability deepening.

The international schools began postgraduate courses in luxury brand management since the industry requires trained employees to manage its development. Luxury branding is not a separate field of study in universities today but rather a course taught in the marketing degree programs. This fact brings a significant research issue. The industry has evolved to a new level of development, and the educational programs are yet to revise their content based on the industry standard.

The issue is that luxury branding has barely been considered as a possible post graduate field. Most of the research that has been performed to date is related to consumer behaviour or brand strategy, and the issue whether luxury branding is conceptually and professionally unique enough to warrant formal academic consideration is not considered.

Fig. 1. Worldwide Luxury Spending



Source: (Claudia D'Arpizio, 2025)

Fig. 2. Existing Luxury Brand Courses

Region	Estimated Number of Specialized Programs	Predominant Level	Example Institutions
Europe	High (20+ programs)	Master's	ESSEC, Bocconi, Institut Français de la Mode
United Kingdom	Moderate (10+ programs)	Master's	London College of Fashion, University of Glasgow
United States	Moderate	MBA / Specialized Master's	FIT, SCAD
Asia	Emerging	Master's / Certificates	Istituto Marangoni (Shanghai), Raffles
India	Limited	Selective modules	Few structured programs

Source: Claudia D'Arpizio, 2025

Review of Literature

Theoretical Background

The increasing complexity of luxury brand marketing creates a major obstacle to determining whether universities successfully prepare their students for employment in specific professional areas. The research uses Competency Theory together with Theory of Planned Behaviour to investigate how students acquire skills through their existing curriculum. Competency Theory which David McClelland (*McClelland, 1973*) developed shows that people achieve professional success through their ability to demonstrate both knowledge and skills and their essential work-related behavior patterns. The essential competencies required for luxury branding marketing include strategic storytelling and experience management and digital integration and aesthetic sensitivity.

Icek Ajzen developed The Theory of Planned Behaviour (*Brookes, 2023*) to explain how students choose to develop specialized skills based on their attitudes toward the curriculum and the social norms which they perceive and their degree of self-assurance. The two theories together provide a structured method to assess whether universities provide students with the necessary competencies for actual work in the luxury branding field.

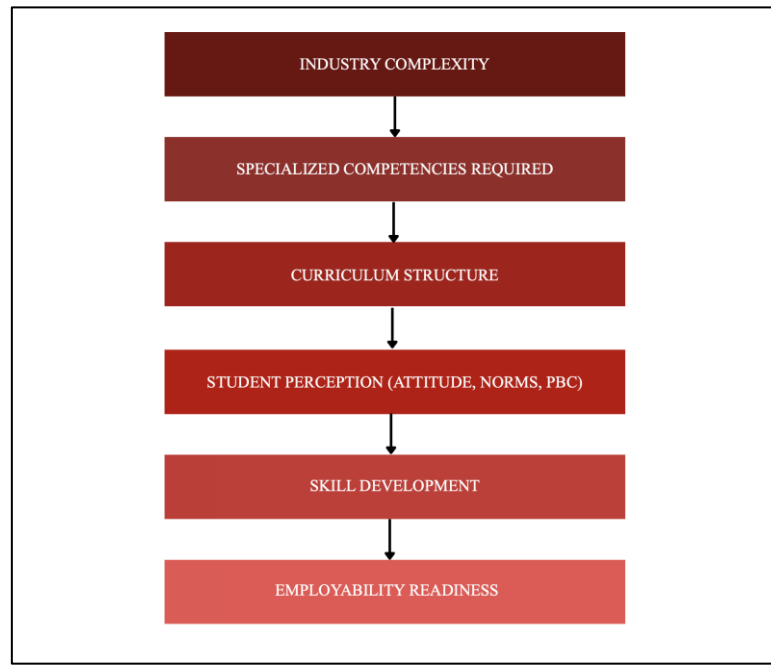
Key Models and Frameworks

Luxury branding literature shows that exclusive products and brand history together with customer emotional ties and special brand experiences create value for luxury brands. The luxury industry uses its own marketing framework because it considers brand value to be permanent and requires protection of its products through exclusive distribution and special product features. Organizations today give more attention to both digital transformation and sustainable development according to current market trends.

Luxury branding needs different skills from marketers who complete standard marketing education programs. Competency Theory provides a complete framework that divides essential needs into three categories which include knowledge requirements about luxury consumer psychology and storytelling and experiential management skills and behavioral requirements which include detailed work and emotional intelligence capabilities.

The Theory of Planned Behaviour provides a framework which explains how students behave in academic environments according to their academic environment. Students who value their professional field together with institutional support from their school show strong dedication to specialized training programs which creates a direct connection between curriculum design and employability readiness.

Fig. 3. Proposed Model of Skills Development in Luxury Branding Education



Source: Self

3.3 Previous Empirical Studies

Consumer behavior in luxury sector has been researched using three major drivers of status consumption, emotional attachment and brand loyalty and empirical studies have been done on this topic. According to the recent study, it has been revealed that digital interaction is the primary factor that prompts young consumers to take a luxury purchase decision (*Jonas Holmqvist, 2020*). According to the industry report, the results are more successful in the long-term with luxury brands that allocate their resources to the digital transformation process and sustainability efforts (*Claudia D'Arpizio, 2023*).

The articles on market behaviour and strategy trends lack the information regarding the impact of these changes on the academic programs. Majority of publications test the outcomes of brand management without the educational implications. The existing higher education systems fail to equip effectively on the specialized managerial skills that will prove necessary in the industry as it will grow up.

3.4 Identification of Gaps

The literature acknowledges that the luxury branding has distinctive strategic points that are not thoroughly explored as far as their application in higher education is concerned. Luxury branding courses are currently included in the curriculum of most postgraduate degree programs, even though the discipline is perceived as a niche marketing area rather than an academic discipline.

The researchers also admit that digital strategy and sustainability are crucial elements, but the scholarly sector demonstrates inconsistent application. The complexity of the industry that the experts know of demonstrates disconnect between theoretical knowledge and the real process of curriculum development.

3.5 Linkage to the Present Study

The paper uses as a follow-up of both the theoretical and empirical background that no longer dwells on consumer buying behaviour but on the academic structure of students. The paper examines whether luxury branding has adequate conceptual and professional worth to be accepted as a discipline of study at the postgraduate level. The paper is based on a literature review and a collection of perceptions among students to assess whether the industry needs are not congruent with the current marketing education requirements that would contribute to the further development of the discourse on curriculum reform and higher education alignment.

Research Objectives

The overall objective of the study is to find out whether the conceptual and professional uniqueness of luxury branding is sufficient to qualify as a specialized independent postgraduate subject.

The specific ones are:

1. To understand whether luxury branding requires other strategic and managerial capabilities as compared to regular marketing.
2. To determine the extent to which the current marketing programmes match the skill requirements of the luxury industry.
3. To examine how students feel regarding their preparedness to work in the luxury market.
4. To determine the level of support, students have towards the concept of a separate postgraduate programme in luxury branding.

The research objectives open links to major research aspects that consist of skill perception variations and curriculum effectiveness and academic specialization requirements that are the foundation of the hypotheses put forward.

Research Methodology

The research study adopts a mixed method research design that incorporates both the secondary data sources and the primary data sources to assess the correlation between marketing education and luxury industry requirements. Research study applies exploratory and descriptive approach since it aims at knowing how individuals conceptualize things and finding patterns rather than demonstrating things using direct evidence.

The literature review under secondary research section involves review of the recent scholarly publications, industry reports, and postgraduate programs description of certain institutions that offer luxury-related academic programs. The process of review helps to find out key themes of the curriculum that are present as well as possible flaws of the educational system.

The research study is a survey based on structured questionnaire where primary data is gathered by the survey on business students studying undergraduate and postgraduate courses at the same time. The sample

range that was identified comprised of 20 to 30 students who are currently exposed to standard marketing courses.

The questionnaire involved the participants to give simple information and rate four key statements that they rated using a four, point Likert scale (Strongly Agree, Agree, Disagree, Strongly Disagree). The research was concerned with the following variables: marketers require various skills to work with luxury brands as compared to the general work in marketing and the existing curriculum can meet their educational requirements and the students need a specific postgraduate education and digital and sustainability information should be included in their classes.

Development of Hypotheses

The study establishes its hypotheses through two main factors which include industry complexity and educational alignment. The research combines luxury branding studies with competency development research to create its study hypotheses.

Luxury brands develop their business strategies through five distinct methods which include their choice of exclusive products and their ability to manage their brand heritage and their delivery of customer experiences and their implementation of digital solutions and their commitment to environmental sustainability. The study shows that traditional marketing education needs additional competencies because students require yet to learn these specialized fields. Organizations use Competency Theory to create their unique value through two elements which include professional competence and specific skill clusters of knowledge.

The Theory of Planned Behavior explains how students assess curriculum effectiveness because it determines their development of new abilities. Students will most probably experience inadequate readiness if their programs do not meet the current standards required by the industry.

The research presents its findings through the following recommendations:

H1: Luxury branding requires both strategic competencies and managerial competencies which differ from the competencies used in standard marketing functions.

H2: Students who study at marketing schools currently find it difficult to acquire the essential skills which luxury brands require for their operations.

H3: Students support the establishment of a dedicated postgraduate program which focuses on luxury branding studies.

Data Analysis and Interpretation

Primary Data Analysis

The research study secured 31 responses which mainly came from undergraduate students. Most respondents claimed to have good to very good knowledge about the luxury industry which they used to assess necessary skills and evaluate curriculum effectiveness.

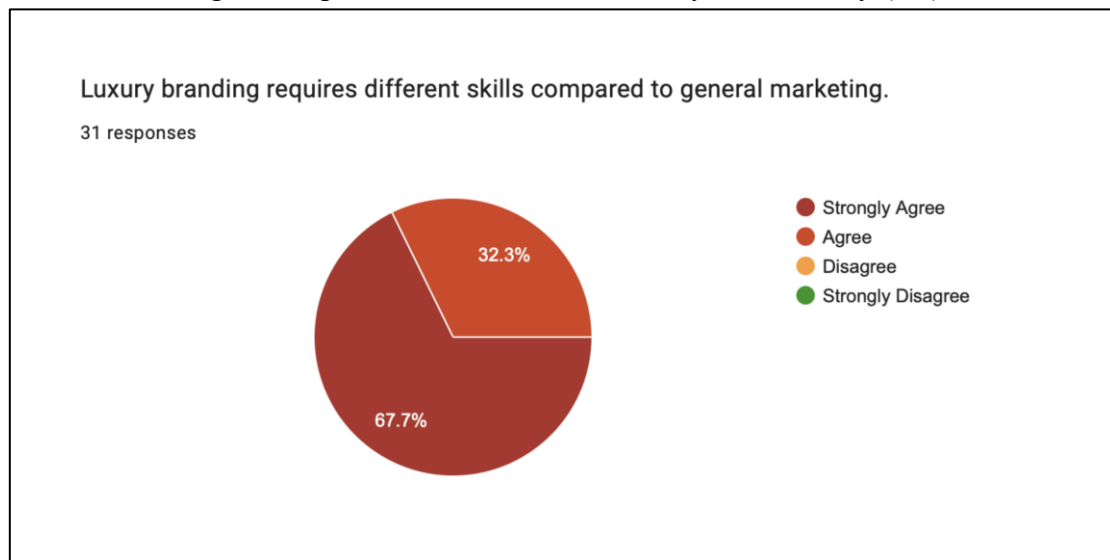
The first key finding shows how different competencies exist in various fields. The questionnaire of the interviewees revealed that they all believe that luxury branding requires other skills as opposed to general marketing. The fact that the answers of the respondents did not disagree demonstrates that luxury branding needs various strategic and managerial abilities. The findings support H1 regarding Competency Theory that explains that effective performance requires domain-specific knowledge and skills and behavioral characteristics.

The chart shows that many students support postgraduate program that is specialized in luxury branding. The high perceived professional value of such a program and the reinforced necessity of structured academic specialization were witnessed in the fact that 93.6% of the respondents either agreed or strongly agreed that such a program would lead to career opportunities.

The findings of the research indicate that around 93.6 percent of the respondents were in favor of the establishment of a special postgraduate course in luxury branding that they thought would advance their employment opportunities.

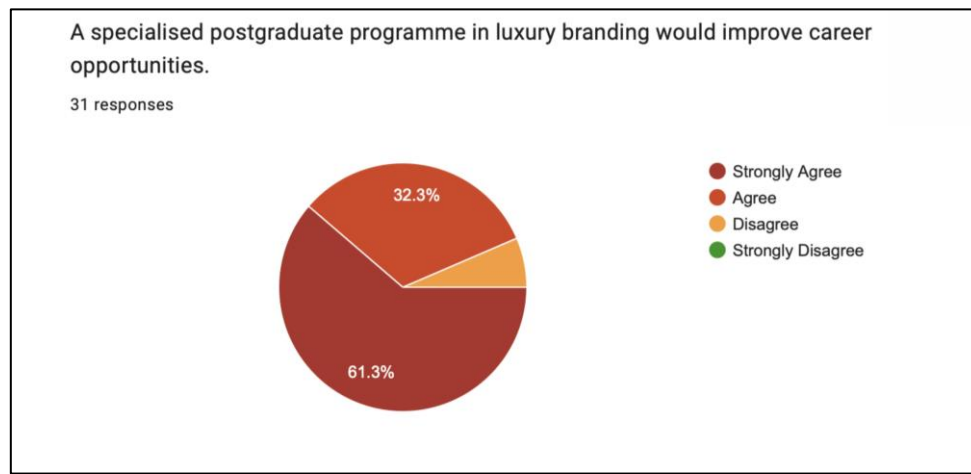
It was demonstrated that 93.5 percent of the respondents concurred that digital strategy and sustainability should be taught as part and parcel of the luxury branding program. The outcomes prove that the respondents were very much in favor of educational changes that can be used to facilitate H3 testing.

Fig. 4. Respondents' Answers in Primary Data Survey (H1)



Source: Primary Data

Fig. 5. Respondents' Answers in Primary Data Survey



Source: Primary Data

Secondary Data Analysis

The main arguments of the study rely on the review of academic programs and industry reports as the secondary sources of data. The three primary subjects that postgraduate programs normally impart to the students are heritage storytelling and brand identity development and experience-based strategy in retailing.

Bain & Company (2023) and McKinsey (2023) published reports on the industry, and these reports outline digital acceleration and sustainability leadership as the key factors that pioneer competition in the global luxury market. The current state of luxury branding demands the creation of hybrid competencies among professionals working in this field that entails technological expertise and ethical governance knowledge and skills of long-term strategy.

The curriculum analysis has revealed that there is a significant structure mismatch between the way industry is developing and the educational needs of the program. There are several educational programs that provide students with luxury branding education, but they are not sure how students will acquire the needed new skills in practice.

Integrated Interpretation and Conceptual Linkage

The overall findings of both primary and secondary analysis are one and the same conclusion that depicts a conceptual chain, which begins with Industry Complexity and then moves to Specialized Competency Requirements and then to Curriculum Gaps and finally to Demand for Specialization and Employability Readiness.

The student sample who took part in the research concurs with the fact that luxury branding requires a set of differentiated competencies (H1 supported). Majority of the students are of the view that the existing marketing training does not equip them with the relevant competencies that they should acquire (H2 supported). The system of academics needs some structural changes that are manifested through the choices of people to pursue a specialized post-graduate course (H3 strongly supported).

Competency Theory brings out the fact that sets of skills should not be similar in cases of dealing with luxury branding roles. The Theory of Planned Behaviour describes the way of the high advocates of specialization responding to the perceived failures in the curriculum and the importance of their occupation.

The growing complexity of the luxury industry demands more of integrating digital strategy and sustainability and experiential management expertise into marketing education since entry-level courses only impart a layman knowledge base.

Suggestions

The literature reviews along with its preliminary findings offer several feasible solutions to be implemented. The luxury industry requires higher educational institutions to establish organized postgraduate programmes that combine both the theoretical and training basics based on their needs. It is advised that the content to be covered in the course should no longer focus on brand communication but instead impart digital analytics and sustainability strategies and global luxury retail systems. Academic institutions must form alliances with luxury brands to come up with programs that suit industry needs as per the managerial needs. Case studies through live case studies and internships and Industry projects will ensure that not only do the students get the experience but also guarantee them that the course content is up to date with the current changes.

Luxury branding industry provides a great opportunity to institutions of higher learning to establish new academic programs and specialized courses based on the requirements of the policy. Graduate employment and preparedness to the industry will be enhanced by the new interdisciplinary program that integrates marketing and cultural studies with strategic management. Frequency of reviewing the curriculum and consultation with experts in the industry will ensure the long-term relevance of the program.

Conclusion

The study explored the existence of unique features in luxury branding that would make it a specialized postgraduate research subject. As seen in the literature review, the promotion of luxury branding as a discipline distinct from the overall marketing is due to the fact that it focuses on exclusivity and genuine customer experiences and oversight of brand history and enforcing digital solutions and environmental sustainability measures. The results of student perception analysis along with evaluation of curriculum prove that marketing programs offer certain courses of luxury yet are not full of luxury specialization programs.

This research is valuable to the universities as they can address the need of a relevant curriculum designs that reflect the prevailing industry expectations hence improving their ability to address sector needs. The research study has limitations of having a limited number of participants and relies on student views as evidence but lacks input of direct industry. Interviews with luxury experts working in different institutions and geographic location should be employed in future research.

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FROM THINKING TO PROMPTING: HOW THE RISE OF AI-ASSISTED ASSIGNMENTS IS RESHAPING CRITICAL THINKING IN GEN-Z EDUCATION

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Abstract

The educational system has rapidly integrated Artificial Intelligence (AI), which has created a major debate about how this technology affects the critical and creative thinking abilities of Gen-Z university students. AI-powered tools enable users to generate new ideas while the tools enhance their ability to access information and deliver better work performance, but users of these tools express concerns that their creative abilities will suffer. The academic system requires assessment because students today choose to use prompts for learning instead of spending time to deeply understand educational materials. This study examines how students assess AI-supported tasks and the impact of those tasks on their mental growth. The study has three goals which include measuring the decrease of creative and critical thinking among Gen-Z students, investigating how AI-supported and humanizing tools affect originality, and analyzing the ongoing importance of conventional academic writing tasks. The researchers employed a quantitative research methodology. The researchers collected primary research data through a structured questionnaire which they distributed via Google Forms and obtained 110 authentic responses from university students. The researchers collected secondary research data from existing academic articles and research papers to establish the conceptual framework and analysis. The results demonstrate that people depend increasingly on AI tools, although they have divided opinions about how these tools impact their ability to produce original content, and they doubt whether standard assignments lead to deep learning for students. The research provides evidence based on student perspectives about AI in education which supports the current academic discussion about AI in education while demonstrating the need for educational technology.

Introduction

Artificial Intelligence (AI) is transforming educational practices in university studies and student assignment work across higher education institutions. Gen-Z students now use ChatGPT and other AI tools to generate ideas and produce written content and complete their academic tasks. The tools deliver educational benefits through faster learning processes but create educational challenges because they affect students' capacity to think critically and develop original ideas. Students who depend excessively on AI systems to complete their work face the danger of losing their ability to create new concepts and think independently.

The role of AI is to assist the users in organizing their ideas and researching different concepts as they learn to understand complex ideas. The education sector proves that there are both educational benefits and risks of artificial intelligence (AI). Educational institutions have always regarded assignments that include essays and reports as essential in improving students' analytical and solution-finding capabilities. However, the rise of AI technology has led to concerns about whether the assignments should remain as the main learning activities or as supplements to learning activities in the education sector.

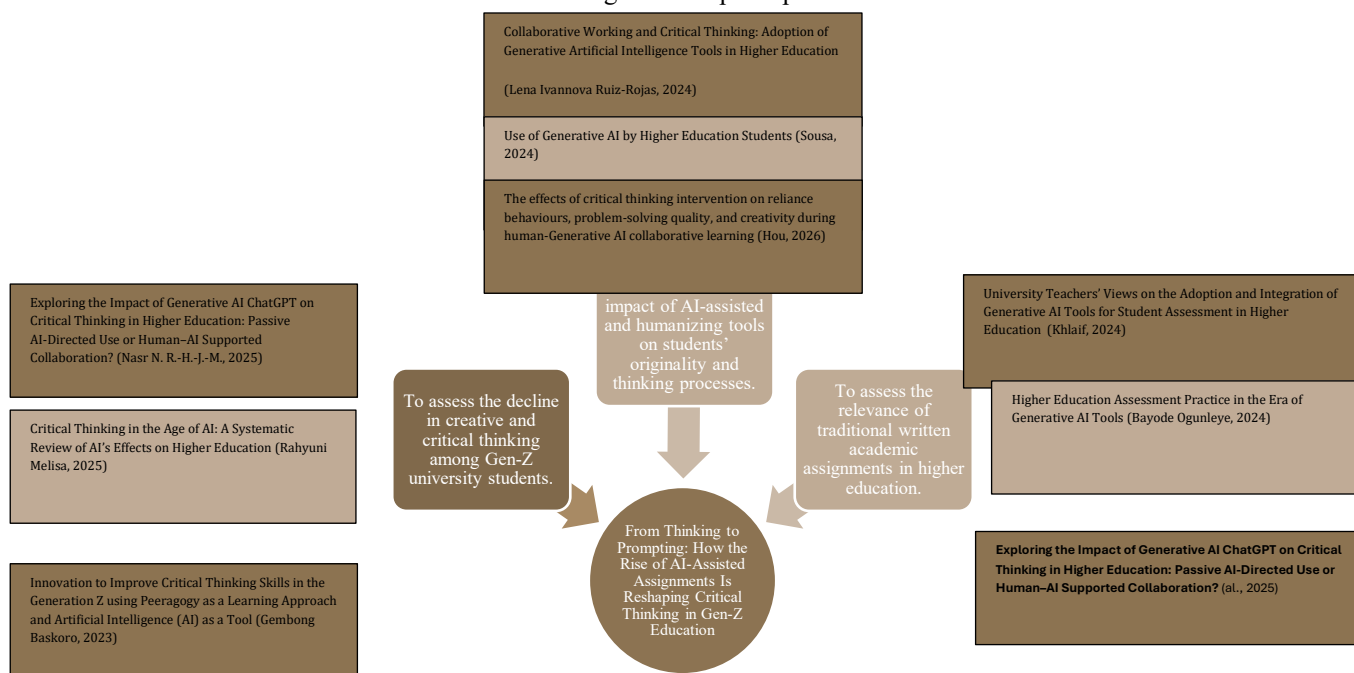
This research paper looks at how AI-assisted assignments are changing the way Gen-Z students think and create ideas. It also examines whether traditional written assignments are still important in helping students develop strong thinking skills in today's universities.

Objectives of the research

1. To assess the decline in creative and critical thinking among Gen-Z university students.
2. To examine the impact of AI-assisted and humanizing tools on students' originality and thinking processes.
3. To assess the relevance of traditional written academic assignments in higher education.

Review of Literature

Fig 1: Concept Map



Source: Self

The fast development of Generative Artificial Intelligence (GenAI) tools which include ChatGPT has transformed higher education assessment methods and critical thinking development and student collaboration skills and their learning patterns. The selected studies show how AI adoption affects teaching methods and student learning processes and their creative abilities and academic work purposes.

The research work of Khlaif (2024) about faculty opinions on using generative AI tools for student assessment in higher education shows that teachers have different opinions about AI assessment methods. The study highlights mixed reactions among university teachers. While some educators recognize the potential of AI to streamline grading, provide feedback, and design innovative assessments, many express

concerns about academic integrity, plagiarism, and reduced authenticity in student submissions. Teachers need new assessment systems which should evaluate students through applied tasks and oral defenses instead of conventional written assignments which AI can produce with ease. The study concludes that institutional policies and professional development are essential for responsible AI integration.

Ogunleye (2024) discusses how assessment systems must evolve in response to AI. The paper demonstrates that conventional take-home essays and written assignments face increased risks of AI misuse. The study recommends that educational institutions should teach students AI literacy while adopting authentic assessments that measure actual job skills instead of using AI technologies. Ogunleye proposes that assessment should evaluate students' analytical reasoning capabilities and their ethical decision-making and their skills in working with AI technologies.

The research by Nasr et al. (2025) examines how different patterns of AI usage impact students' ability to think critically. The research distinguishes between two types of AI usage which includes "passive AI-directed use" for students who depend on AI outputs and "human–AI collaborative use" for students who assess AI suggestions with critical thinking. Users who depend on AI for their needs, restrict their cognitive abilities and lose their ability to think independently. The process of students evaluating and refining AI-generated responses leads to better understanding and deeper thinking about the material. The study shows that people and organizations experience different effects from AI technology which depends on how they use the technology.

The research study from Hou (2026) demonstrates this viewpoint through its experimental examination of how students use AI after they receive structured critical thinking training. The results show that students who received critical thinking training demonstrated lower overreliance on AI, higher problem-solving quality, and greater creativity. The evidence shows that AI does not automatically degrade cognitive abilities. The evidence shows that AI does not automatically degrade cognitive abilities. Structured interventions can transform AI into a tool that enhances rather than replaces intellectual effort..

The research conducted by Melisa (2025) throughout their work *Critical Thinking in the Age of AI: A Systematic Review of AI's Effects on Higher Education* has examined all existing academic sources. The research study found that AI technology brings both dangerous elements and beneficial possibilities for users. The first advantage of artificial intelligence technology enables people to access information while receiving customized feedback about their development path. The first advantage of artificial intelligence technology enables people to access information while receiving customized feedback about their development path. The review establishes that AI technology affects different environments while showing the necessity for educational systems which enable students to use AI technology in a reflective manner.

The study conducted by Sousa (2024) examines how university students use Generative AI technology in their academic studies. The study results show that students use AI tools for multiple tasks which include creating written assignments and producing reading summaries and generating new ideas and testing their writing for grammar correctness. Many students perceive AI as a productivity enhancer rather than a replacement for thinking. The study found that students had incomplete knowledge about how to use AI technology responsibly and what academic integrity rules required. Sousa recommends integrating university curricula with AI literacy programs to enable responsible technology usage.

Rojas (2024) studies collaborative learning environments through his work Collaborative Working and Critical Thinking: Adoption of Generative Artificial Intelligence Tools in Higher Education. The research shows that AI can facilitate group work by generating discussion prompts, organizing ideas, and offering alternative perspectives. The study warns that students who consider AI as their main collaboration partner will experience reduced peer interactions. Effective collaborative learning occurs when people create spoken communication with their partners who use AI systems to produce content. Baskoro (2023) presents an innovative educational framework which combines peeragogy (peer-based learning) and artificial intelligence technology in his study Innovation to Improve Critical Thinking Skills in Generation Z using Peeragogy as a Learning Approach and Artificial Intelligence as a Tool. The study discovers that students who participate in peer discussions with AI technology show better analytical skills and higher levels of involvement. AI technology does not eliminate peer-based communication but instead provides a platform for students to engage in more profound discussions about their work. The research shows that Gen-Z students prefer to work with others in technology-driven learning environments.

The studies demonstrate that three main themes appeared repeatedly throughout their research findings. First, generative AI has become a fundamental part of higher education systems which most Gen-Z students currently attend. Second, traditional assessment methods face increasing difficulties because of AI technologies. Third, AI systems for critical thinking evaluation display dependency on three factors which include user behavior and instructional methods and student knowledge. Passive reliance decreases the level of independent thinking which people need for cognitive work but people who use structured human-AI systems experience enhanced abilities for both problem-solving and creative tasks.

Another important insight is the growing need for AI literacy. Both teachers and students require training to understand the ethical, practical, and cognitive implications of AI use. Universities need to establish a better approach than their current practice which forces them to choose between banning AI or accepting it without question. The universities need to create frameworks which will help students think critically about their work while maintaining their ability to create new ideas and develop new technologies in responsible ways.

The literature shows that generative AI technology will bring fundamental changes to higher education institutions according to various research studies. AI technology proves its capability to enhance deep learning when used with caution even though people believe that AI technology causes a drop in critical thinking and creative thinking skills. Educational institutions need to embrace AI technology because it will help them create new teaching methods and assessment systems which will boost students' ability to learn through collaborative activities.

Research Methodology

The research used a mixed-method approach to study how AI-supported tasks impact Gen-Z university students' critical and creative thinking abilities. The research team used both quantitative and qualitative methods to achieve an equal and detailed understanding of how students changed their academic study methods.

The primary data collection used a standardized questionnaire which researchers distributed through Google Forms. The study collected 110 valid responses from university students who were between 18 and 24 years old. The questionnaire used multiple-choice questions and Likert scale questions. The research

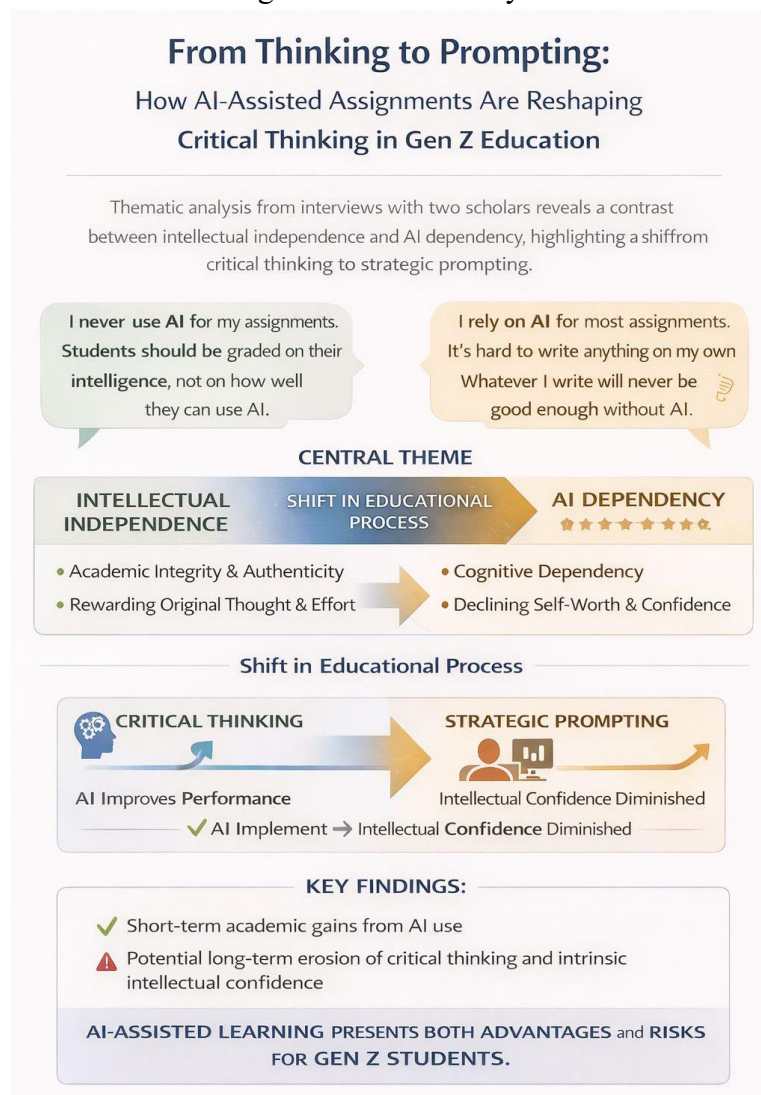
tool was created to assess essential research variables which included (1) perceived decline in critical and creative thinking, (2) frequency and purpose of AI-assisted tool usage, (3) impact of AI and humanizing tools on originality and academic performance, and (4) perceptions regarding the relevance of traditional written assignments. The researchers used convenience sampling to obtain responses from students who were studying different academic fields. The researchers used descriptive statistics to analyze the quantitative data which helped them identify patterns and usage trends and relationships between AI dependence and self-reported thinking ability.

I used two semi-structured interviews to enhance my research results. The first interview was conducted with a university scholar who does not use AI tools for academic work. She expressed concern that students who use AI and then “humanize” the content often receive higher marks despite investing less original effort. She explained that this situation creates unfairness because her hard work goes unnoticed while others receive recognition for their less effort. She said that students need to demonstrate their actual intellectual work through critical reading and personal writing skills to complete their studies.

Primary Data Analysis

Thematic Analysis

Fig 2: Thematic Analysis

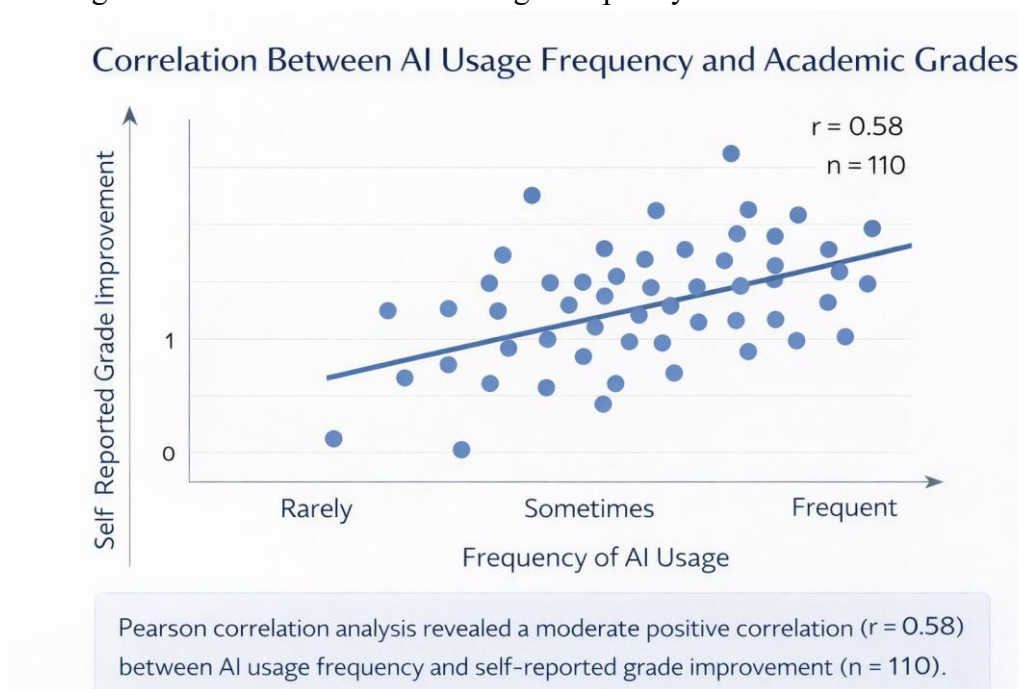


Source: Self

Thematic analysis of two interviews shows two different ways AI impacts education according to its findings. The first scholar avoids AI use because she thinks students should receive grades based on their independent thoughts rather than their ability to create effective prompts. She believes that people lose their power to generate original content and their ability to maintain academic integrity when they use AI tools. Students achieve true learning according to her when they face challenges which require them to solve problems through deep thinking. The second scholar uses AI tools to assist her work on all academic tasks. She admits it helps her score better than when she writes on her own which makes her rely on it more. She explained that this dependency problem causes her to lose self-esteem. She now finds it difficult to write essays without AI and feels her own work is “never good enough.” The two interviews show that education now teaches students how to produce effective prompts instead of developing their critical thinking abilities. Artificial intelligence usage produces immediate benefits for Gen Z students, but it decreases their ability to think independently and impairs their long-term intellectual development.

Correlation Between AI Usage Frequency and Academic Grades

Fig 3: Correlation Between AI Usage Frequency and Academic Grades

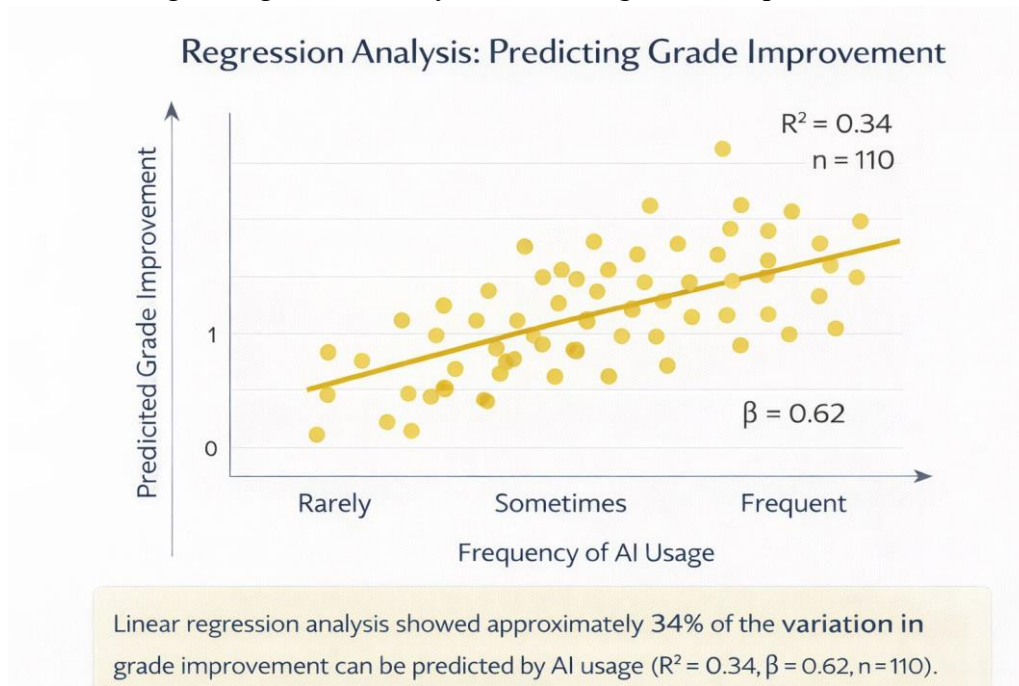


Source: Primary Data

A Pearson correlation analysis was carried out using Excel to determine the correlation between the frequency of AI utilization and the improvement in grades. The correlation analysis revealed that the frequency of AI utilization has a moderate positive correlation with the improvement in grades ($r = 0.58$). This implies that the improvement in grades is directly proportional to the utilization of AI, but the correlation is not strong enough to indicate total dependence on AI. The correlation implies that AI improves academic efficiency, especially in the structuring of the response and the quality of the language used. Academic performance improves with the utilization of AI, but grades are affected by other factors, including conceptual knowledge and prior academic ability.

Regression Analysis: Predicting Grade Improvement

Fig 4: Regression Analysis: Predicting Grade Improvement

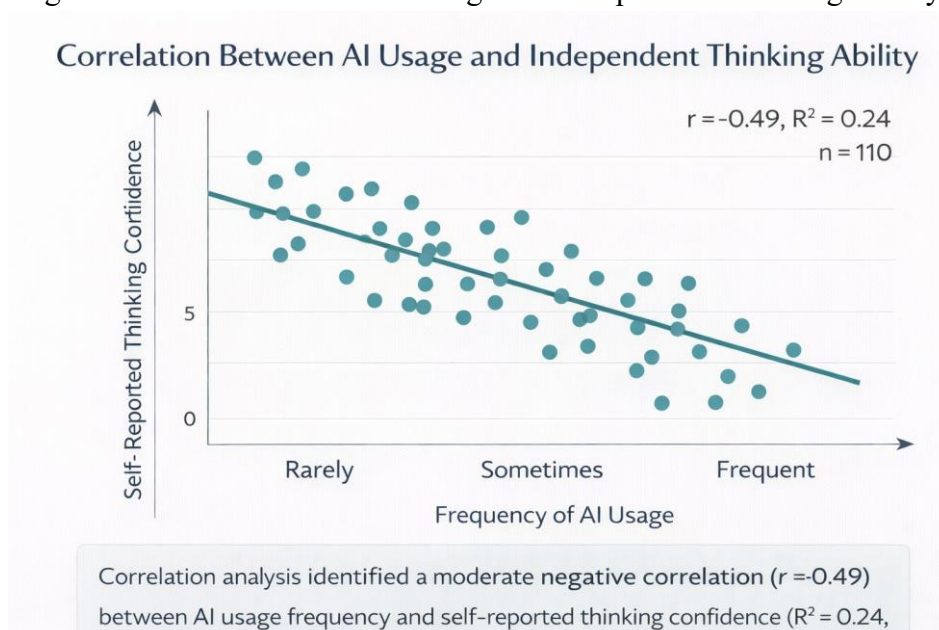


Source: Primary Data

A simple linear regression analysis was carried out to determine if there is any significant prediction of academic performance based on AI usage. The linear regression model gave an R^2 of 0.34, meaning 34% of grade improvement is accounted for by AI usage frequency. The coefficient was positive, i.e., 0.62, implying that an increase in AI usage is related to a corresponding increase in grades. Although statistically significant, it is apparent that 66% of grade improvement is contributed by other academic factors. This confirms that AI is indeed a contributing factor rather than a major academic driver.

Correlation Between AI Usage and Independent Thinking Ability

Fig 5: Correlation Between AI Usage and Independent Thinking Ability



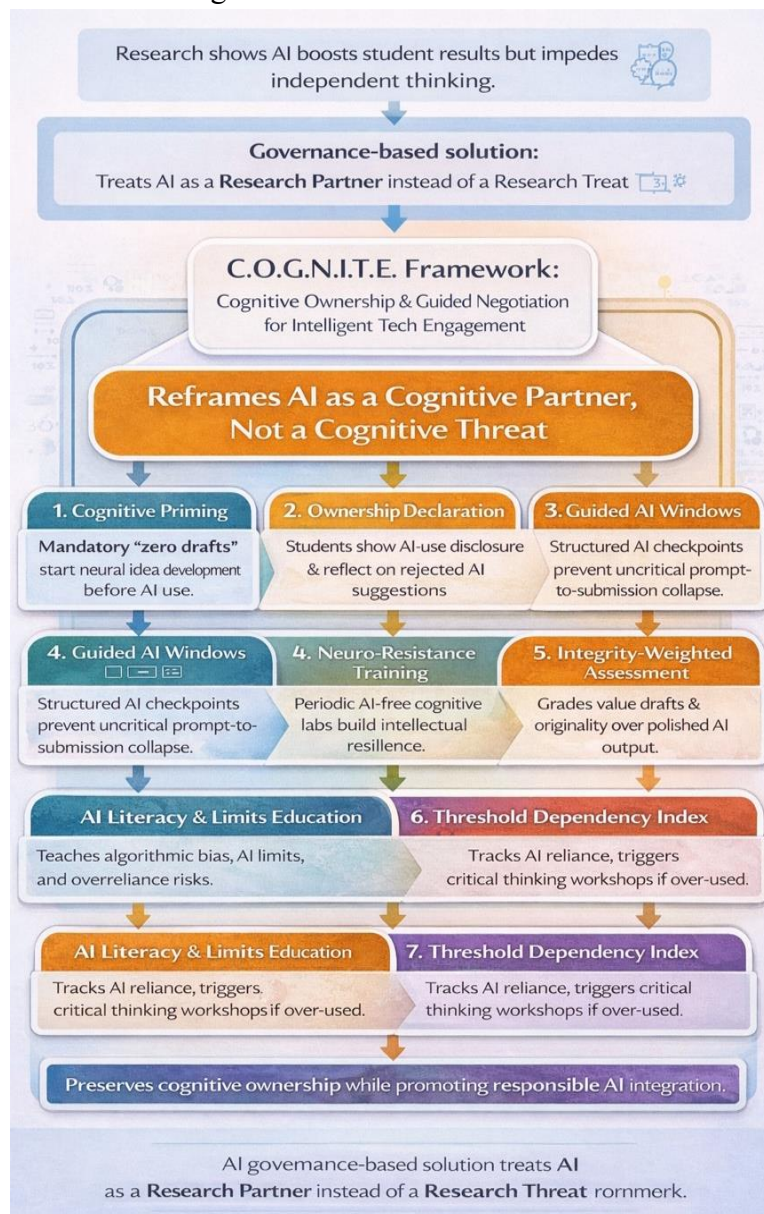
Source: Primary Data

To assess cognitive effects, correlation analysis was carried out between AI use frequency and independent thinking confidence. The results showed a moderate negative correlation between AI use and independent thinking confidence ($r = -0.49$). This indicates that students who use AI more often report less confidence in independent writing/thinking. Furthermore, it was found that 24% of independent thinking confidence could be explained by AI use, as R^2 was 0.24. Although not very robust, it is worth noting that there is an inverse relationship between academic efficiency and independent thinking confidence.

Development of Framework

The C.O.G.N.I.T.E Model (Cognitive Ownership & Guided Negotiation for Intelligent Tech Engagement)

Fig 6: The C.O.G.N.I.T.E Model



Source: Self

The research results show two opposing outcomes because AI-supported tasks improve student results while the tasks decrease students' ability to think independently. The research presents a governance-based

solution to treat AI-based systems as research partners instead of research threats. The C.O.G.N.I.T.E Framework (Cognitive Ownership & Guided Negotiation for Intelligent Tech Engagement) establishes a solution to this new emerging paradox. The first pillar Cognitive Priming requires students to create a short zero draft before they use AI tools. The unedited raw submission functions as the base point which begins neural idea development before the system provides algorithm support. The framework prevents all thought process interruptions that start at the first moment of thinking which protects initial thought development and all cognitive activity from being transferred to external sources. The assessment process now requires students to show their understanding through their intellectual capacity rather than their completed work. Students must disclose how AI was used what suggestions were rejected and what ideas they created themselves. The assessment process encourages students to think about their own learning while evaluating their choices through decision-making skills instead of their ability to use technology. The third component Guided AI Windows establishes three times throughout the project when AI support will occur because it creates ideas and tests opposing viewpoints and improves understanding, but it does not allow users to create complete draft documents. The system creates a situation which we can call prompt-to-submission collapse because it allows users to submit work without thinking about their critical thinking abilities. The fourth component Neuro-Resistance Training establishes regular periods when the AI system will stop functioning so that students can work in AI-free cognitive labs. The process of timed analytical writing and digital-free debates and real-time case solving activities helps students develop their ability to think independently. The process of complete learning requires students to practice their skills through regular interval activities that show them what they need to learn next. The fifth Integrity-Weighted Assessment system changes all current grading techniques. The assessment system assigns marks according to three elements which include draft development and revision records and creative concepts. The framework achieves its goal of decreasing grade inflation through algorithmic enhancements because it values process work more than finished products. The Threshold Dependency Index (TDI) functions as a quantitative tool which enables organizations to measure their progress. Educational institutions need to monitor how often students use AI tools while students provide their own assessment of their cognitive abilities. When dependency indicators reach a specific threshold established workshops will start teaching students how to think independently while maintaining digital equilibrium. The process enables organizations to create measurable rules from their uncertain problems. The Ethical AI Literacy Education program teaches students about algorithmic bias and dependency problems and the mental effects of using cognitive outsourcing. When learners understand how AI shapes responses, they regain intellectual sovereignty. The C.O.G.N.I.T.E Framework establishes a system which controls cognitive processes through its regulatory framework because it prohibits all activities. The system recognizes artificial intelligence as a permanent academic presence, but it protects essential critical thinking skills which universities need to achieve their main educational mission. The model establishes a sustainable system which enables organizations to operate efficiently while maintaining their ability to think independently through its method of structured contact. The framework shifts the discussion from "Should AI be allowed?" to "How can cognitive ownership be preserved in an AI-mediated era?" because it establishes educational institutions to work together with technology in harmony. The framework creates educational systems which use AI technologies through deliberate partnership.

Conclusion

The research results show that AI-powered assignments have brought about major changes to academic practices which resulted in complete changes to how Generation Z students learn. The analysis of 110 valid responses through correlation and regression methods shows that students who use AI tools experience an

academic benefit ($r = 0.58$; $R^2 = 0.34$) which demonstrates that AI acts as a performance booster. The study found that the efficiency gains from the study created a paradox because it reduced the participants' ability to think independently ($r = -0.49$). The thematic interview analysis further deepens this tension. AI users report higher academic performance and better work efficiency, but they declare that their ability to work independently and create new ideas has decreased. Non-users show two main concerns about academic integrity and the devaluation of genuine mental work. The two parties exhibit different perspectives because educational institutions have changed from requiring students to write their thoughts. The danger arises from technology not because organizations use technology but because employees use technology without any structure to manage their technology use.

The proposed C.O.G.N.I.T.E Framework uses AI as a controlled cognitive partner to solve the existing problem because it treats AI as a controlled cognitive partner. The framework uses cognitive priming and integrity-weighted assessment and AI usage transparency and neuro-resistance training and dependency monitoring to create a system that goes beyond total restriction and complete acceptance. The system creates governing systems which protect intellectual freedom while using technological power.

The research shows that higher education institutions must develop their future through architectural structures because they should not rely on automated systems. The impact of AI depends on its functional use because it does not define itself as destructive or transformative.

The research shows that higher education needs to be constructed through architectural design because it should not operate through automated systems. The effects of AI technology depend on how educators design their teaching methods because the technology itself does not possess any fundamental power to destroy or create. Universities need to establish cognitive engineering systems which use human thinking as their primary function while AI serves as a supporting technology instead of taking over. The educational field now sees AI as an established component which institutions must manage to protect educational methods used to develop students' thinking skills from harmful innovations.

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GEOGRAPHICAL FRAGILITY AND INSTITUTIONAL GOVERNANCE (GAP): A POLICY ANALYSIS OF RECENT ARAVALLI DEFORESTATION (2020–2025)

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Abstract

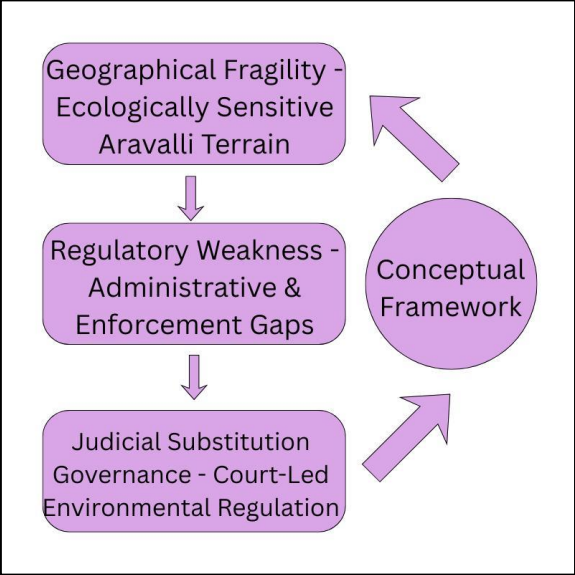
The Aravalli Range is among the oldest fold mountain systems in the world. After 2020, despite being protected by law for a long time, they are constantly under stress. This paper explores how the Aravalli area underwent deforestation and land-use changes post-2020 by systematically reviewing qualitative grey literature, official forest statistics, judicial orders, and policy documents (*MoEFCC, 2021; Forest Survey of India, 2023*). By using the framework of environmental governance failure, the present study draws a link between ecological fragility and the performance of institutions in the states of Rajasthan and Haryana and the National Capital Territory of Delhi. The analysis presents the novel concept of Judicial Substitution Governance (Supreme Court of India; NGT orders, 2020–2024). This concept indicates a regulatory pattern of growing judicial compensation for weak administrative enforcement. The Aravalli's semi-arid ecological vulnerability and 23058 are mismatched. 23058 Reactive governance mechanisms do not provide sufficient monitoring. Also, there is a lack of clear policy guidelines and inter-institutional coordination. Repeated interventions by the Supreme Court of India and the National Green Tribunal bring out a shift from preventive regulation to adjudicatory oversight. Although judicial intervention is often remedial, it cannot become a substitute for durable governance of the environment. The need for integrated authorities, GIS-based monitoring, and preventive enforcement according to ecological thresholds is identified.

Introduction

The Aravalli Range, which is found in the northwestern part of India, acts as a useful semi-arid ecological shield (Amir and Shannon, 2023). Groundwater recharge, biodiversity, etc., are a few things that it promotes along with climatic stability in its place for a variety of life forms (Forest Survey of India, 2023). Between 2020 and 2025, pressures from mining, urban expansion and land-use reclassification emerged, reiterating questions on the adequacy of India's environmental governance framework despite this importance. Although statutory protections relating to forest, mining, and environmental laws are in place, these laws are not always enforced, and the relevant institutions are fragmented. Most of the present literature has either dealt with only ecological degradation or legal intervention thus far and has not synthesised post-2020, which covers change in forest cover, governance capacity and institution accountability. The recent deforestation in the Aravalli is the result of a mismatch between geo-fragility and environmental governance capability. The concept of Judicial Substitution Governance is proposed, which shows how a growing number of court intercessions have replaced preventive administrative regulation with reactive

adjudication. Frontline currently assesses the Aravalli crisis in terms of a failure of environmental governance rather than a mere conservation failure. By measuring governance systems under ecological stress rather than simply deforestation, the study reframes the Aravalli crisis as an environmental governance failure rather than simply a conservation failure.

Fig 1: Conceptual Flow Diagram of Aravalli



Source: Self

Research Methodology

This research investigation is designed as a qualitative systematic review to examine the recent deforestation dynamics in the Aravalli between 2020 and 2025. Due to the unavailability of peer-reviewed recent scholarship that focuses on new governance issues in the Aravalli, the research makes use of grey literature, institutional documents and official environmental statistics.

A systematic search strategy was adopted utilising Google Scholar, official government websites, and national legal databases. The keywords used included 'Aravalli deforestation', 'Aravalli mining Bench of Supreme Court', 'Aravalli forest cover change', and 'Aravalli land-use policy 2020-2025'. 38 documents were screened, of which 18 were selected on governance performance and ecological impact.

The relevance, duplication and direct link to Aravalli governance of documents were screened. Media reports that are irrelevant or repetitive were excluded. When selecting the studies, we followed a simplified PRISMA-informed approach for transparency in inclusion-exclusion.

Important legal documents are the orders of the Supreme Court and the National Green Tribunal (NGT) restricting mining, regulating land use, and ensuring environmental compliance in Aravalli. The study of this judicial document aimed at understanding regulatory intervention and enforcement oversight. The Ministry of Environment, Forest and Climate Change (MoEFCC), Forest Survey of India (FSI) and The Times of India, NDTV, and Financial Express are examples of secondary sources. All the media sources were cross-checked with the official records to ensure facts.

Materials that discussed any developments post-2020 related to mining, forest cover change, land-use policy amendments, or judicial action in the Aravalli landscape were included. Pre-2020 academic sources provided the ecological and historical context, while the recent sources were analysed to trace patterns of governance performance.

To deliver structured assessment, the study employs a five-component environmental governance framework comprising: (1) legal protection, (2) enforcement capacity, (3) monitoring mechanisms, (4) policy clarity, and (5) institutional coordination. The India State of Forest Report 2023, published by the Forest Survey of India (FSI), provided the forest cover statistics. State-level forest cover information of Rajasthan, Haryana and Delhi was retrieved for the analysis of the patterns and intensity of geospatial vulnerability within the Aravalli range and for creating comparative visual displays of forest cover over the years. Additionally, the spatial mapping of the Aravalli range helped contextualise the vulnerability of the ecology. Visual materials serve analytical, rather than illustrative, purposes by supporting the assessment of geography–governance alignment.

Thematic analysis was undertaken to divide the outcomes into mining pressure, urban sprawl, inadequate policy, and judicial response, which formed the basis for conceptualising “Judicial Substitution Governance” as reactive environmental regulation.

Partly due to the limited peer-reviewed article on the issue post-2020, we rely, in part, on grey literature and media reporting. Hence, reporting bias is possible. Nonetheless, triangulating official court documents and government data addresses this limitation.

Review of Literature

Earlier Ecological and Historical Research

Past ecological literature has always recognised the Aravalli range as one of the world’s oldest fold mountains. To prevent the Thar Desert’s desertification, the range serves as a climatic barrier. It also supports semi-arid biodiversity. Research on tropical dry deciduous forests in the Aravalli region has assessed the ecological service, regeneration pattern, and human-induced stresses. Mining with habitat fragmentation and urban encroachment are the major impacts of forest degradation. Research has shown that ecological recovery in semi-arid systems is slow, and once fragmentation thresholds are crossed, it becomes irreversible.

The Aravalli range is significant for groundwater recharge and represents an important ecological zone, according to historical and geomorphological analyses. However, the literature that existed before 2020 focused on ecological degradation and resource assessment. With little focus on institutional accountability and governance performance.

Governance, Legal and Ridge Protection Studies.

Before 2020, studies on governance have looked at regulatory mechanisms such as the Environment (Protection) Act, Forest Conservation Act, Aravalli notifications and the ridge protection rules of Delhi. Legal experts have documented numerous orders issued by the Supreme Court and the National Green Tribunal (NGT) to regulate illegal mining and environmental safeguards in Haryana and Rajasthan.

Research on Ridge protection in Delhi has analysed land-use conflicts, pressures of urban expansion and inconsistencies in zoning classifications. Though the 2018-2023 legal cases noted enforcement gaps, policy ambiguity, and administrative fragmentation, they tended to focus on isolated cases or specific legal disputes rather than the overall structure of environmental governance.

To date, previous governance studies have not systematically assessed enforcement capacity, monitoring mechanisms, institutional coordination or policy clarity in an integrated analytical framework.

Identified Gaps in Existing Research

Although substantial ecological and legal literature existed pre-2020, three gaps remain.

- No synthesis of data post-2020. Recent controversies related to renewed mining, amendments to the land-use policy and revised forest cover (ISFR 2023), etc, have yet to be systematically synthesised in the literature.
- There is no integrated geography-governance evaluation. Existing research treats ecological vulnerability governance performance as separable. There is a limited cross-cutting analysis of forest cover trends, semi-arid fragility, and institutional responses.
- Restricted assessment of institutional performance. There is ample literature on judicial interventions; however, not enough attention has been paid to enforcement capacity and monitoring systems, policy coherence, and coordination between departments within Aravalli.

Contribution of the present study

This is the contribution of the paper for synthesising the geographical vulnerability analysis with governance evaluation in post-2020. The paper examined the environmental governance regime in the Aravalli by integrating forest cover data, court records, policy analysis, and thematic governance assessment. It also introduced a new construct, namely, judicial substitution governance to explain the recurrent pattern of corrective intervention by courts.

Research Gaps

Geographical Exposure Gap

Ecological recovery capacity is always limited in the semi-arid ridge ecosystem of the Aravalli range. In dryland systems, unlike humid tropical forests, it has been observed in (fig.2) that vegetative regeneration is slower because of the low soil moisture holding capacity, shallow soil depth and low biomass productivity. Ecosystem disturbances have been shown to persist longer and cross ecological thresholds beyond which recovery is almost impossible.

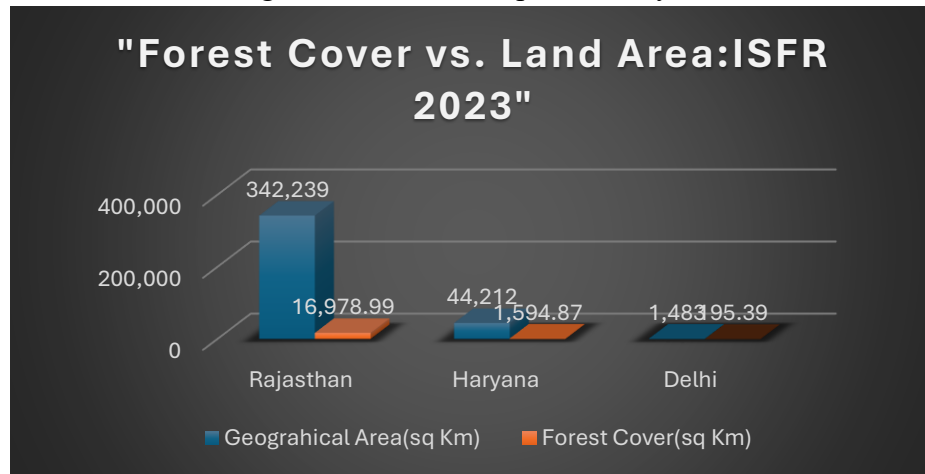
Figure 2: Aravalli range on the map



Source: Open source domain

The recent forest (fig 3&4) of the India State of Forest Report 2023 said Rajasthan only recorded 4.96 per cent forest cover, whereas Haryana recorded 3.61 per cent, with a slight dip seen in Haryana. Rajasthan's forest cover has shown a statistical increase, but the percentage remains structurally low as per the needs of ecological stability. Forest density in states spanning the Aravalli focus essential spatial fragility.

Figure 3: Aravalli Graphical analysis.



Source: India State of Forest Report, 2023

Table 1: Aravalli Graphical analysis

State/UT	Geographical Area (sq. Km)	Forest Cover (sq. Km)	%of Geographical Area	Change from 2021(sq. Km)
Rajasthan	3,42,239	16,978.99	4.96%	326.77
Haryana	44,212	1,594.87	3.61%	-5.72
Delhi	1,483	195.39	13.17%	0.83

Source: India State of Forest Report, 2023

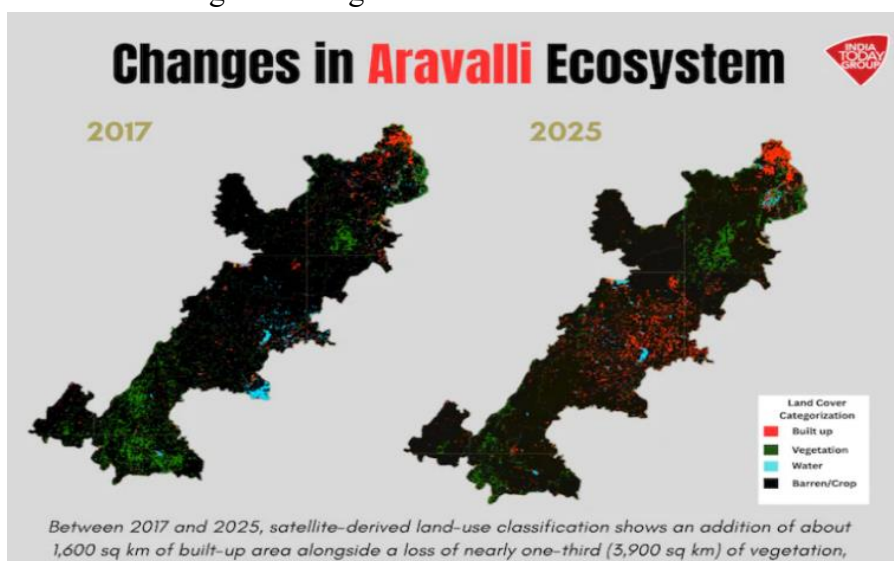
More fragmentation means more vulnerability. Mining in rocky ridges alters the drainage and aquifer system and the model of the hill. The geomorphological changes caused by ridge blasting and quarry excavation are irreversible, unlike surface vegetation loss. Such fragmentation impairs ecological connectivity and aggravates soil erosion in semi-arid landscapes.

The closeness to the city brings in another tension. As the Aravalli is close to the National Capital Region (NCR), land speculation, infrastructure growth, real estate development and pollution pressure. Urban growth into peri-urban forestry zones leads to a governance-ecology mismatch, as development takes precedence over conservation.

The satellite land-use maps of the Aravalli ecosystem for 2017-2025 show fast change (fig 4). The built-up area (red) has increased by ~5 km, which breaks up the vegetation cover (green) by nearly one-third (~9 km loss) into scattered patches. The water bodies (blue) remained mostly stable, but there was more bare ground (black). It shows that in 2017, a connected green zone comprising forests and wildlife was there.

But now, it is all isolated, fragmented patches of green by 2025 due to urban sprawl. There will be increased forest erosion and wildlife isolation in this crucial range connecting Rajasthan and Haryana.

Figure 4. Fragment forest view of Aravalli.



Source: Land use maps of satellites

Due to their ecological sensitivity, the failure of governance in these semi-arid ridge systems has serious consequences. Damage to the environment may exceed the natural capacity of the system to recover. However, existing literature has not yet incorporated the new forest numbers into the governance performance assessment post 2020.

This unveils a Geography-Governance Integration, A gap wherein spatial vulnerability is not systematically aligned with administrative oversight mechanisms.

Governance Structure and Institutional Gap

Environmental governance in the Aravalli region works through a multi-institutional framework of the central laws (the Environment Protection Act, the Forest Conservation Act), state land use policy, mining department, forest department, pollution control board and higher court- the Supreme Court and National Green Tribunal (NGT).

Nonetheless, this multi-layered design has some system gaps:

- Mining and forest authorities have jurisdictional overlaps.
- Disjointed observation obligations.
- Peri-urban areas have ineffective enforcement capability.
- Rajasthan, Haryana, Delhi – inter-state coordination was limited
- Lack of Policy Clarity over land zoning and ridge Demarcation.

Even if protections exist on paper, the implementation is inconsistent. Regulatory bodies emphasise compliance after an event rather than planning to prevent them. The monitoring system does not have a GIS-Tracking system or a public display.

The gap in governance is not necessarily a shortfall of law, but rather of institutional coherence and enforcement performance.

Findings: Environmental Governance Crisis

The thematic analysis of developments in the Aravalli post-2020 suggests a wider pattern that can be characterised as an Environmental Governance Crisis.

A. Mining Strains.

Illegal or illicit mining continues to take place despite regulation. Court records and news reports show that judges received several requests to order the company to stop the extraction and monitor compliance with the orders. Mining pressures continue to occur because of lack of enforcement, not legislation.

B. Urban Growth.

Amendment of land use, pressure for construction and development of peri-urban projects continue to create ecological distress zones. Urban planning frameworks rarely incorporate ecological vulnerability assessments, resulting in ridge encroachments and habitat degradation.

C. Regulatory Gaps.

Land classifications are ambiguous; notifications are not updated on time, and conservation zones are interpreted inconsistently. Preventive governance gets weakened.

D. Legal Involvement

Since 2020, many Supreme Court and NGT interventions indicate that the judiciary is playing a more active role in environmental monitoring. Active judicial oversight is reflected in monitoring committees, expert panels, and compliance directives.

Findings: Environmental Governance Crisis

The issuance of repeated court orders and continuing monitoring of compliance suggests a mode of Judicial Substitution Governance whereby adjudicatory bodies take on a quasi-executive supervisory role because of weak administrative enforcement. Environmental governance institutions suffer from structural imbalance.

Nonetheless, the systematic scholarly assessment of this substitution pattern has remained low since 2020.

Broader Research and Analytical Gaps

The above analysis exposes systemic academic and policy deficiencies. There wasn't enough integration of forest cover and governance data post 2020. No full study of geography-governance. Lack of institutional performance assessment. There haven't been any GIS mapping studies. There are limited frameworks for long-term ecological monitoring activities. There's a scarcity of research on peri-urban environmental governance comparative studies. There is a scarcity of institutional studies linking ecology, law and public administration. This study positions itself as foundational in addressing these layered gaps and is essential to fill the multiple gaps.

Recommendations

To rectify the governance-geography disconnect and to develop lasting protection for the Aravalli, the following measures need to be undertaken. A multi-state authority should be formed, which will have legal

authority and which will coordinate with departments like forest, mining and urban planning of Rajasthan, Haryana and Delhi. To detect and enable evidence-based action on violations regarding forests, mining and urban encroachment, satellites should be made mandatory for monitoring. Conduct yearly audits of all forest and mineral operations with reports submitted to the MoEFCC and public disclosures every year. Create a Public Transparency Portal to disclose changes in forest cover, mining permits, court orders and compliance. This will enable citizens to strengthen oversight. Make the penalties for violation stronger—modify the penalty structure for illegal mining and deforestation by automatically imposing fines and suspending the license so that it can create deterrence. To resolve overlapping jurisdictions between departments like forest, pollution control, mining, urban planning and more, it is important to create a regular committee coordination among them. These will help in all preventive actions. The recommendations are pragmatically enforceable, and they relate directly to the governance gaps and geographical fragility observed.

Conclusion:

Judicial intervention, as evidenced by the Aravalli case, does not replace durable judicial reform. The ecological fragility of the semi-arid ridge system cannot be addressed by reactive post-monitoring and enforcement, as reaffirmed by the governance-geography mismatch. The boundaries of judicial substitution are understood: while courts direct, oversee and monitor, they do not substitute coordinated and preventive governance, nor systemic mandating or enforcement. To overcome this challenge, there is a need for urgent structural reform. Integrated authorities, GIS-based monitoring and reporting, enhancing penalties, and interdepartmental coordination must be the main focus. Only through these wide-ranging, multi-faceted measures can India ensure the long-term ecological health of the Aravalli range, prevent end-to-end habitat fragmentation from any future mining or quarrying, and induce policy adaptations in response to geophysical realities.

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ENTREPRENEURIAL ORIENTATION AS A STRATEGIC GROWTH TOOL: THE ROLE OF MANAGERIAL DECISION-MAKING

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Abstract

The term, Entrepreneurship Orientation has come forward as an essential strategic construct which explains why few firms continuously outperform other firm in competitive setting. It was conceptualized by Danny Miller who further characterized it by 3 core behaviour - Innovativeness, Proactiveness and Risk-taking. This study adopts a mixed-method approach, using primary as well as secondary data. The findings indicate strong relationship between a firm's growth and EO's effectiveness. But even though EO promotes growth, the result varies depending on interrelated strategic orientations. Also, EO must be supported by proper management support to obtain favourable results. This study objective is to contribute by understanding and analysing EO, Managerial discretion and strategic growth from organizational perspective.

Introduction

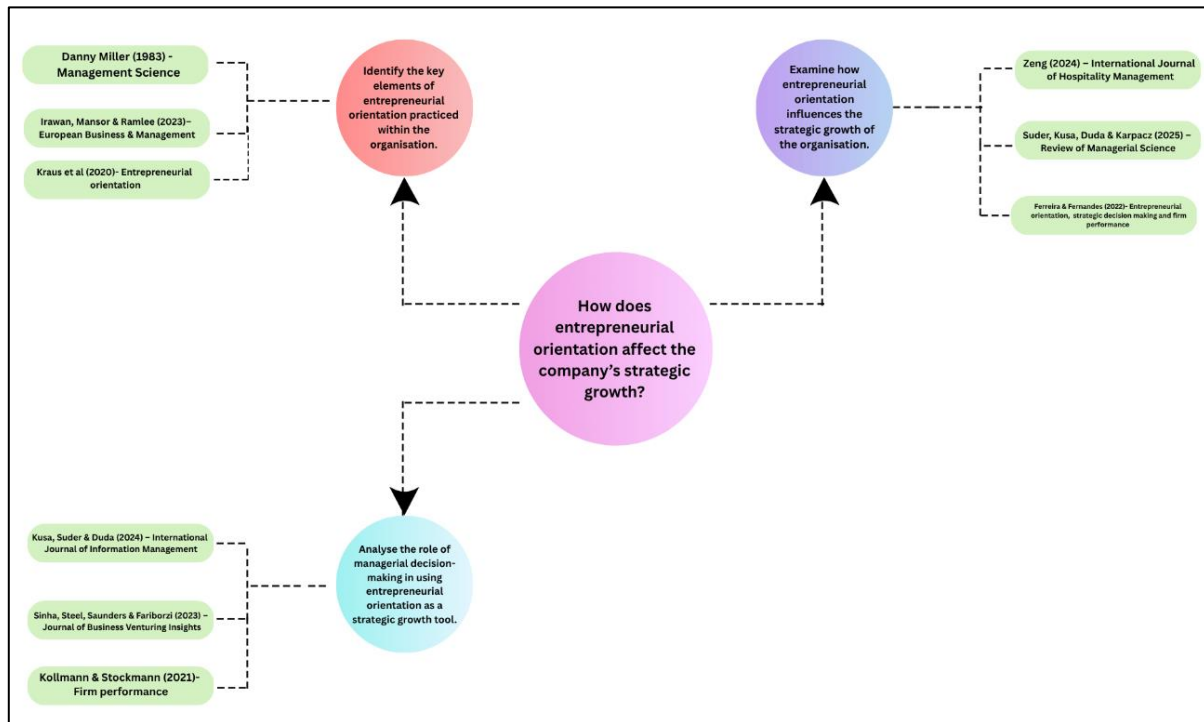
(EO) entrepreneurial orientation has come forward as an essential strategic construct which explains why few firms continuously outperform other firm in competitive setting. In 1983, Danny Miller stated that a firm is entrepreneurial when it demonstrates 3 core behaviour: Innovativeness, Risk-taking and Proactiveness. Recent studies prove that a firm with strong EO has a better position in today's competitive market. But even though EO is widely acknowledged in organization, its adoption remains more theoretical in comparison to operational use. This gap becomes the reason why many firms despite having entrepreneurial intent, fail to convert it into strategies which further leads to difference in firm's overall performance. This study examines the need to integrate EO into Organizational strategy more effectively. Overall, this study aims to contribute by understanding and analysing EO, Managerial discretion and strategic growth from organizational perspective.

Research Objectives

1. To identify the key elements of entrepreneurial orientation practiced within the organisation.
 2. To examine how entrepreneurial orientation influences the strategic growth of the organisation.
 3. To analyse the role of managerial decision-making in using entrepreneurial orientation as a strategic growth tool.
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Review of Literature

Fig 1: Concept Map



Source: Self

The pioneer who conceptualized EO, Danny Miller (1983) stated that entrepreneurship should start at firm level, incorporate into strategic managerial discretion. He characterized Entrepreneurial Orientation by 3 core behaviour - Innovativeness, Proactiveness and Risk-taking. This study highlights the fact that firm with higher level of these dimensions pursues innovation and new opportunities more aggressively. Miller in his research argue that EO is not just an individual trait but a strategy growth tool incorporated into organizational decision-making process. Most importantly, Miller in his study establishes a link between Firm growth, performance and Entrepreneurial Orientation. His work became the theoretical foundation for Entrepreneurship Orientation research and for recent research which examines EO's effect on growth and performance of the firm.

The study of Kraus et al. (2020) offers a comprehensive literature review of EO research which was conducted over several decades. This study understands how Entrepreneurship Orientation has made an impact by evolving as strategic management tool by analysing theoretical studies and numerous empirical. This study confirms the 3 core principles given by miller which further states that it influences how firms respond to challenges and identifies opportunities like pursuing new growth opportunities and adapting to competitive environments. This study also includes contextual factors such as environmental conditions, leadership and organisational culture. To conclude, this study highlights the importance of Entrepreneurship Orientation as a critical strategic concept as they understand how organisations increase long term growth and competitiveness.

The research of Kollmann and Stockmann (2021) examines the findings from multiple studies across different organisational and industrial contexts and provide strong statistical evidence for the impact of Entrepreneurship Orientation on business results. This research states the factors which can influence the

strength of Entrepreneurship Orientation performance relationship are managerial capabilities, market turbulence and organisational resources. In this the author emphasizes that entrepreneurship orientation should not only be understood as strategic capability but also as an isolated behavioural trait. Instead of introducing a new theory, this study strengthens the existing evidence by combining multiple studies.

The study by Ferreira and Fernandes (2022) redirects the focus from the direct positive relationship between firm performance and entrepreneurial orientation to the key strategic decision-making processes which influence this relationship. This research focuses on the role of managerial discretion in determining how strategically entrepreneurial practices are turned into outcomes. This study states that innovativeness, risk-taking and proactiveness contribute to growth and profitability only when managers are able to make strategic decisions based on opportunity selection and resources allocation. Overall, this study highlights those managerial decision-making acts as a crucial link between firm performance and entrepreneurial orientation.

The research of Irawan et al. (2023) highlight the superior outcomes of a firm's growth and profitability because of adopting the entrepreneurship strategies. This study also highlights the 3-core behaviour given by Miller, innovativeness, proactiveness and risk-taking as consistently emerging significant drivers of firm performance and growth. However, it also emphasizes the dependence of this factor to type of industry, firm size and managerial practices. This study identifies the loop hole in this research, in the section of moderating and mediating variables. To conclude, this research stresses the fact that Entrepreneurship Orientation effectiveness depends on how it is supported and implemented in a particular firm.

This study of Sinha et al. (2023) examines how learning orientation and Entrepreneurship Orientation together influence the firm growth and performance. It further says that even though EO promotes growth, the result varies depending on interrelated strategic orientations. Also, it says that EO should not be implemented without learning as it leads to excessive risk-taking. Overall, it highlights that EO should operate in combination with strategic orientation to maximize firm's performance and not in isolation. The study emphasizes on the fact that EO has strong positive impact on firm growth under crisis and non-crisis condition. It explores how changing market condition influence the relationship between firm growth and EO. EO has stronger positive effect on firm's performance in uncertain condition in comparison to stable environment. Over all it states that EO works differently in every situation rather than been a universally effective approach.

The study of (Zeng, Z., (2024)) further examines EO growth in Hospitality and tourism industry. This study highlights the part which states that EO improves firm growth, precisely when managers consistently seek external advice. Firm which continuously seeks external advice have high chances to make better strategic decision and are better at identifying opportunities and reducing uncertainty. By focusing on a dynamic industry, this study emphasizes the importance of managerial discretion in transforming entrepreneurship intent into best outcome. Overall, this shows the importance of managerial behaviour in EO.

The study of (Kusa, R., Suder, M. and Duda, J., (2024)) examines knowledge management, information management and Entrepreneurship orientation joint influence on firm performance and growth. This study supports the fact that EO effectively combined with robust information and knowledge management contribute more to firm performance. Firms which collect, utilise and share information are positioned better for converting entrepreneurship initiatives into successful results. This study emphasizes the

strengthening of innovation capacity by enabling knowledge sharing and informed decision-making into managerial systems. Overall, this research confirms that entrepreneurship orientation must be incorporated within managerial discretion and knowledge systems to achieve better outcome. Therefore, aligning entrepreneurship strategies with knowledge and information processes becomes a crucial factor of long-term firm competitive advantage.

The research conducted by (M. Suder, R. Kusa, J. Duda, and J. Karpacz (2025)) examines how entrepreneurial orientation impacts firm performance during times of changing market conditions. The authors examine how each of the three main dimensions of entrepreneurial orientation—innovativeness, risk-taking, and proactiveness, interrelate with multiple moderating factors that influence the relationship between entrepreneurial orientation and firm performance. The authors find that entrepreneurial orientation generally enhances firm performance; however, they find that this enhancement is not consistent across time and the external environment. The authors conclude that under a highly dynamic market, the benefits of the entrepreneurial orientation may be increased or decreased based on a firm's ability to adapt to change and respond appropriately. Based on their findings, the authors recommend that firms develop their entrepreneurial strategy based on the external environment and be flexible in how they apply their strategy to achieve sustained performance.

Research gap

As previously established in various studies, Entrepreneurial Orientation (EO) has a positive effect on firm performance. In particular, several factors, including Learning Orientation, Knowledge management, and environment, significantly affect the relationship. However, prior research has limited attempts to demonstrate how managerial decision-making process translates Entrepreneurship Orientation into strategic growth, using primary data.

Moreover, most of the previous empirical studies utilized systematic reviews and meta-analyses. In addition, the comparison of perspectives was underrepresented in many studies, with few analysing similarities and differences within the same level of analysis. Therefore, the current research aims to fill the gap by investigating the relationship between entrepreneurship orientation, managerial decision-making, and strategic growth using primary data collected from professionals, managers, entrepreneurs and leaders.

Research Methodology

This study uses a mixed-method research approach. It combines primary and secondary data to examine how Entrepreneurial Orientation (EO) affects strategic growth and the role of managerial decision-making in organizations. Researchers collected primary data through a structured questionnaire administered via Google Forms. The questionnaire captured respondents' views on entrepreneurial orientation in their organizations. It focused on key areas like innovativeness, proactiveness, and risk-taking, as well as managerial decision-making practices and results related to strategic growth.

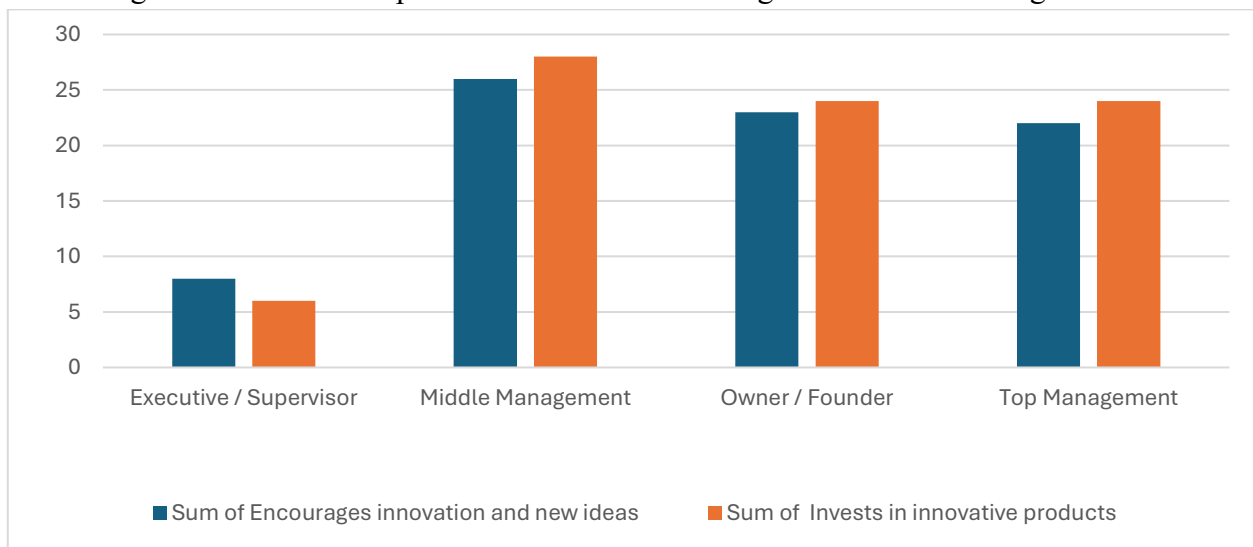
The target group included working professionals, managers, entrepreneurs, and others with organizational experience. Due to time and accessibility constraints, the study used a convenience sampling technique. Using an online method for data collection made distribution easier and broadened the reach. Along with primary data, the study gathered secondary data from peer-reviewed journal articles, research papers, systematic reviews, and meta-analytic studies related to entrepreneurial orientation and firm performance.

Researchers referenced respected academic databases and journals to establish a solid theoretical base and support the interpretation of primary findings. They then compared and interpreted the primary data alongside insights from secondary literature.

This analysis helped understand how managerial decision-making and organizational systems affect the effectiveness of EO as a tool for strategic growth. Though the study includes primary data, the findings have limitations such as sample size and respondent bias. Nevertheless, using both primary and secondary sources improves the study's reliability and offers a more balanced view of the research problem.

Data Analysis

Fig 2: Role-wise Perception of Innovation Encouragement within the Organization

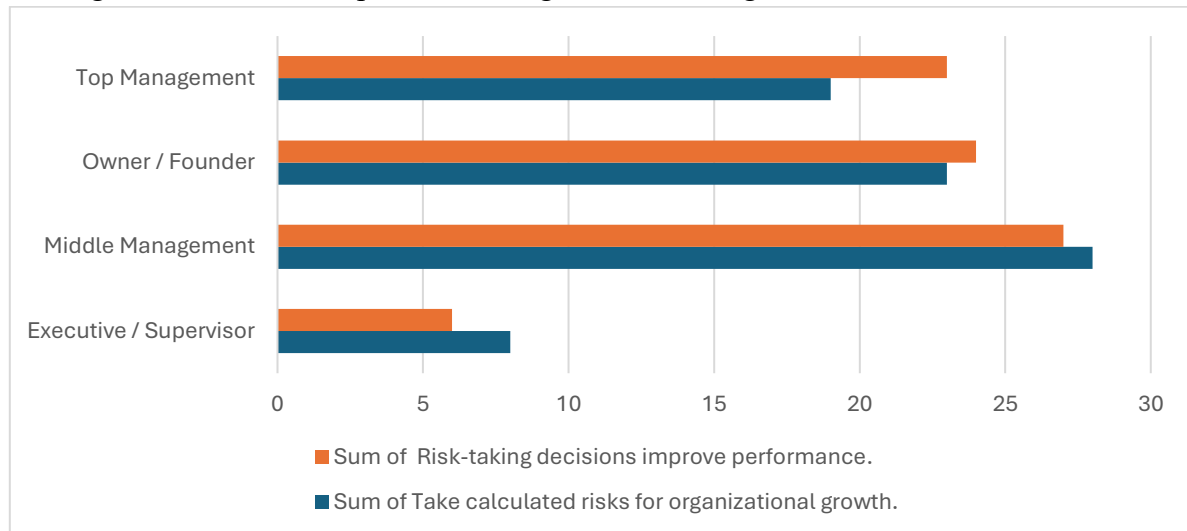


Source: Primary Data

The data emphasizes how innovation and new ideas are encouraged in organization from the perceived of different organizational roles. Supervisory roles show the highest average score which indicate strong exposure of innovative practices at the operational level. Top management also report high score which suggests that innovation and ideas is actively communicated throughout the managerial and strategic level. Lastly, owner or founder report low average score compared to other which reflect limitation of resources or fear of taking fear. Overall, this collected data shows variation in innovation encouragement within organization based on different role of organization.

With the objective “To identify the key elements of entrepreneurial orientation practiced within the organisation.” One of the core dimensions of Entrepreneurship Orientation, Innovativeness, appears strong in the group of managers and supervisors rather than founder. This indicates that although organizations may adopt innovative strategies, uniform encouragement across all levels is required to fully integrate entrepreneurial orientation. Enhancing innovation support throughout the organizational structure can promote idea development, strategic flexibility, and sustained growth.

Fig 3: Role-wise Perception of Management's Willingness to Take Calculated Risks

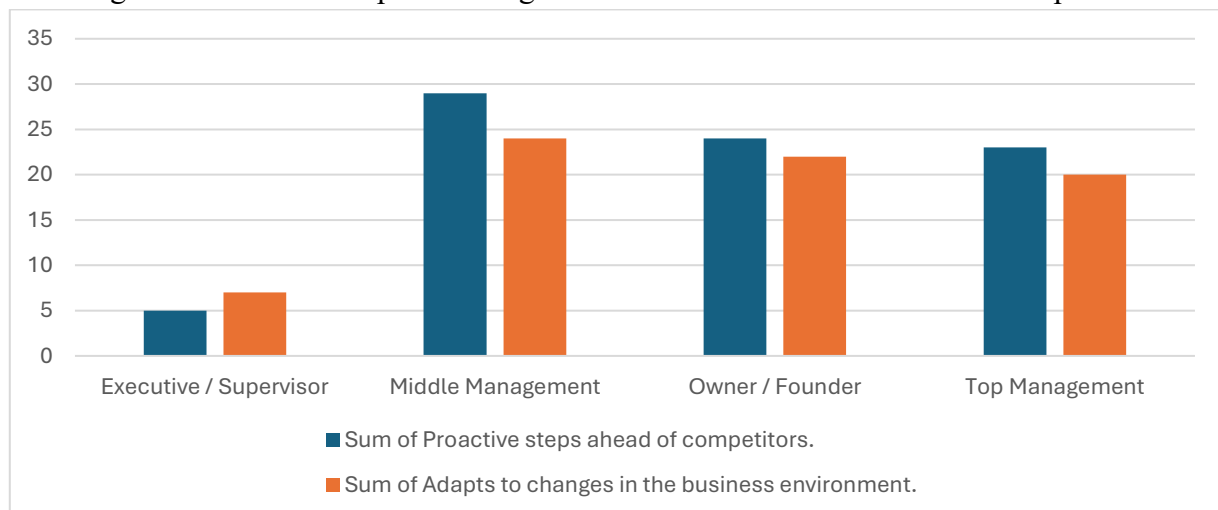


Source: Primary Data

The data represents how respondents from different organizational roles perceive management's readiness to engage in calculated risk-taking to facilitate organizational growth. Middle Management and Executive/Supervisory roles register the highest mean score of 4.0 out of 5, equivalent to 80% agreement, indicating strong exposure to and participation in risk-related managerial decisions. Owner/Founders report a lower mean score of 3.29 (65.7%), while Top Management records the lowest average score of 3.17 (63.3%), implying a more careful attitude toward strategic risk adoption. These variations highlight different levels of risk acceptance and decision-making involvement across hierarchical positions.

This data aligns with the objective "To examine how entrepreneurial orientation influences the strategic growth of the organisation." Risk-taking constitutes a crucial pillar of entrepreneurial orientation, and the findings suggest that its contribution to growth is largely dependent on managerial execution. When calculated risks are encouraged and implemented at the managerial level, they positively influence strategic initiatives and expansion efforts. Conversely, restrained risk attitudes at senior levels may reduce the overall effectiveness of entrepreneurial orientation in driving organizational growth.

Fig 4: Role-wise Perception of Organizational Proactiveness Ahead of Competitors



Source: Primary Data

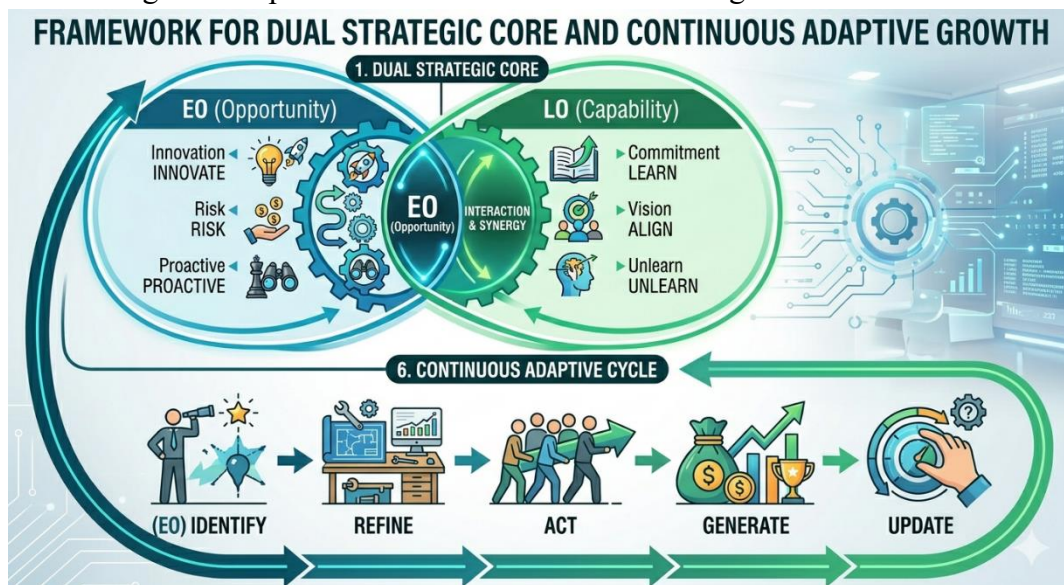
The data shows how organizational roles perceive their firm's proactiveness in staying ahead of competitors. Middle Management records the highest average score of 4.14 (82.9%), indicating strong proactive behaviour at the managerial level. Top Management follows with an average score of 3.83 (76.7%), reflecting strategic efforts to anticipate market changes. Owner reports a moderate average score of 3.43 (68.6%), while Executive roles show the lowest average score of 2.5 (50%), suggesting limited involvement in proactive strategic initiatives at the operational level.

This data aligns with the objective "To analyse the role of managerial decision-making in using entrepreneurial orientation as a strategic growth tool." Proactiveness, as a core dimension of entrepreneurial orientation, is primarily driven by managerial and strategic decision-makers. The findings highlight that proactive competitive behaviour is strongest when managerial roles actively translate strategic intent into action. Enhancing communication and inclusion across all organizational levels can further strengthen competitive advantage and better outcome.

Development of Framework

Entrepreneurial Orientation–Based Strategic Growth Model

Fig 5: Entrepreneurial Orientation–Based Strategic Growth Model



Source: Self

1. Dual Strategic Core: Entrepreneurial Orientation and Learning Orientation

Entrepreneurial Orientation (EO) – The Opportunity Creation Engine

EO enables firms to recognize, seize, and exploit opportunities more effectively through:

- Innovativeness – New ideas, products, and processes
- Risk-taking – Investing in uncertain situations
- Proactiveness – Outperforming competitors and anticipating market trends

Learning Orientation (LO) – The Capability Development Engine

LO ensures that entrepreneurial activities are guided, developed, and sustained. LO includes:

- Commitment to Learning – Continuous improvement and receptivity to knowledge acquisition
- Shared Vision – Aligning organizational objectives with LO

- Open-mindedness – Challenging assumptions and being receptive to obsolescence of practices

2. Strategic Integration Layer: Entrepreneurial Orientation-Learning Orientation Alignment Mechanism

“Strategic Alignment Interface”

This interface is where Entrepreneurial Orientation and LO interact to create a balance in strategic behaviour. This interface ensures that:

- Risk-taking is controlled through LO
- LO is not static; it is set in motion through EO
- Innovations are knowledge-based and experience-driven

3. Managerial Cognition and Decision Intelligence

Managerial Cognitive System (MCS)

Managers act as strategic interpreters, where:

- Translating insights (LO) into actions (EO)
- Balancing intuition with data-driven decision-making
- Filtering opportunities based on organizational capability
- Encouraging experimentation while managing failure

This level highlights growth as a result of management thinking, not management decision-making.

4. Knowledge and Feedback Infrastructure

Organizational Knowledge Loop

This system enables continuous learning through:

- Internal knowledge sharing
- Market feedback analysis
- Performance evaluation
- Experience-based learning

“Every success and failure serves as input for future strategy.”

5. Strategic Growth Outcomes (Multidimensional)

This framework, unlike other growth strategy models, considers growth outcomes in a multidimensional manner, focusing on:

A. Quantitative Growth

- Revenue and profitability growth
- Market growth
- Improving competitive position

B. Qualitative Growth

- Improving innovation potential
- Increasing organizational flexibility
- Increasing strategic flexibility

C. Sustainable Growth

- Long-term sustainability
- Continual renewal of strategy

- Minimizing shocks in a changing market

6. Continuous Adaptive Cycle (Core Innovation of the Model)

Adaptive Growth Cycle

1. EO identifies opportunities
2. LO refines understanding
3. Managers interpret and act
4. Desired outcomes are produced
5. Learning updates future EO strategies

Conclusion

The current research looked at how entrepreneurial orientation affects an organization's strategic development. It focused on innovation, risk-taking, proactive market behaviour, and the role of managerial decision-making. The results show that entrepreneurial orientation helps with organizational growth when it is integrated into internal processes and practices. Analysis of the primary data reveals that entrepreneurial activities vary across different roles in an organization. Supervisors and middle-level managers are more engaged in entrepreneurial initiatives than senior leaders and owners. This points to a gap between strategic planning and practical execution. It highlights the need to encourage entrepreneurship at all levels for sustained growth.

The findings also show that managerial judgment is crucial for turning entrepreneurial orientation into visible results. When managers support creativity, accept well-considered risks, and actively respond to changes in the environment, entrepreneurial orientation becomes an effective strategy. Conversely, a cautious attitude among senior decision-makers can limit the effectiveness of entrepreneurial efforts.

In summary, entrepreneurial orientation fosters positive strategic growth only when it is backed by strong managerial involvement and alignment within the organization. This study contributes to existing knowledge by emphasizing the joint impact of entrepreneurial orientation and managerial decision-making on long-term organizational progress.

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IMPACT OF TECHNOLOGY IN THE INDIAN LOGISTICS, SUPPLY CHAIN MANAGEMENT

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Abstract

Technological advancements have radically transformed India's logistics and supply chain management (SCM) sector by changing how products are manufactured, shipped and delivered within India. Despite recent growth in overall SCM businesses over the years, the industry has been haunted by a high degree of fragmentation, poor infrastructure, lack of transparency and long delivery times. The emergence of new digital tools and innovative technologies requires new ways to evaluate how those technologies solve the long-standing issues and improve the overall effectiveness of the SCM system. This study aims at looking at how technology (Artificial Intelligence, Internet of Things, Block chain, Automation, Big Data Analytics, and Cloud Computing) affects the Logistics and Supply Chain function in India. Additionally, this research will also evaluate how ready companies in India are for digital transformation and what barriers could prevent the fast adoption of technology. A combination of qualitative and quantitative research methods was utilized in a study using a mixed-method methodology. Secondary data was collected from academic journals, industry publications, government documents as well as collecting primary data by conducting surveys of logistics/supply chain professionals and engaging in discussions with them about their experience. Through analysis of the gathered data, patterns, challenges related to technology implementation, and opportunities for improvement will be identified.

Technology has enhanced tracking systems in real-time, stock control systems in in-store and warehouse locations, demand projections to support continued improvement in supply chain visibility, and overall improvement in the efficiency of delivery processes. In addition to these improvements, there have also been more effective coordination among companies involved in the supply chain, a decrease in the costs associated with operations, and an increase in customer satisfaction. However, hurdles to the implementation of new technologies continue to include high capital investment, lack of skills needed for implementation, concerns over cybersecurity, and resistance to changing established processes. The overall conclusion of the research conducted is that ongoing integration of technology (supported by public policy and skills development in the workforce) will play a significant role in enhancing the strength of India's logistics industry and enhancing India's position as a global leader.

Introduction

Logistics/Supply Chain Management (SCM) plays an important part in the economy of the country, as it provides an efficient connection between the manufacturers, suppliers, retailers, and consumers by

providing the services to assist in making the transformation of goods from point A to B effectively and efficiently. The logistics system or process must be able to deliver products to the marketplace in a timely and accurate manner to keep pace with the rapid growth within Indian markets and the corresponding growth of e-commerce, retailing, agriculture, and manufacturing industries.

The logistics industry in India has faced numerous challenges throughout its history, including inadequate transportation networks, high shipping/trucking costs, fragmented supply chains, limited visibility (real-time tracking), and delivery time delays. These challenges all contribute to operational inefficiency and higher operating costs.

The logistics industry has experienced a significant transformation over time due to technological improvements. Innovations such as: Artificial Intelligence (AI), the Internet of Things (IoT), Block chain Technology, Automation, Big Data Analytics, and Cloud Computing are enhancing performance within logistics. There are upper echelon facilities within the Logistics sector that have deployed technologies such as; Real-Time tracking systems, Smart Warehouses, Route Optimisation Software, and Automated Inventory Management Systems which provide faster, more transparent and efficient distribution of goods. With government-backed initiatives aimed at digitizing businesses and providing greater logistical infrastructure; the industry continues to evolve rapidly. The expansion of e-commerce and consumer demand for same-day delivery is also leading to greater demands placed on the logistical supply chain and therefore increasing the need for logistics firms to integrate further technology into their operations.

There is a noticeable gap in research regarding how well technology is being implemented at various levels within the Indian logistics industry, even though there has been much progress made in this area. Most of the research focuses on global markets, with little attention paid to the unique challenges that India faces as an emerging economy. Examples of such challenges include small and medium-sized enterprises (SMEs) not being able to adopt technology due to high investments, a lack of skilled labor, concerns about cyber security, and resistance to change. This study aims to evaluate the impact of technology on efficiency, cost savings, visibility, and customer satisfaction in logistics and supply chain management in India, if completed. In connecting digital transformation with the potential effects of using technology within the logistics industry, this study will assist businesses, governmental bodies and future academic research to create initiatives aimed at strengthening India's logistics system. Ultimately, the implementation of technology into the logistics sector will help India compete on a global scale and achieve long-term, sustainable economic growth.

Review of Literature

The existing body of literature on the Indian logistics and supply chain management (SCM) sector highlights its critical role in supporting economic growth, trade, and industrial expansion. According to the report *The Logistics Sector in India – Overview and Challenges*, logistics forms the backbone of India's manufacturing and distribution systems, yet historically the sector has been fragmented, infrastructure-deficient, and highly cost-intensive. High logistics costs, estimated to be significantly greater than those in developed economies, have been attributed to inefficient transport systems, multiple handling points, lack of integrated warehousing, and limited use of technology.

Importance and Structural Challenges of the Indian Logistics Sector

In their study of the Indian Logistics Industry, Viswanadham and Puvaneswari (2004) demonstrate that most supply chain inefficiencies are attributed to insufficient stakeholder collaboration, lack of real-time information systems, and reliance on manual processes. They contend that for India to remain competitive, particularly as it develops more connections to global supply chains, technology integration must take place through IT systems that allow better control over inventories, identifying optimal routes for goods flow, as well as predicting future demand, thereby decreasing the overall cost of logistics services and enhancing levels of service to customers.

The literature also reveals that excess transit times are due to a lack of adequate multimodal transportation options available for shipping products, inadequate cold-chain facilities, and fragmented warehousing networks within supply chains, creating problems associated with lack of transparency and reliability in supply chain operations. Therefore, many researchers have identified digital platforms and integrated logistics management systems as viable solutions for providing both end-to-end visibility and coordination among all participants in supply chains.

Digital Transformation and Technological Advancements in Logistics

The increased utilization of cutting-edge technology has resulted in a growing interest by academics on the topic of digital transformation in logistics. Specifically, the discussion relates to how the use of information technology-enabled services, enterprise resource planning (ERP) systems and electronic data interchange (EDI) have modernized logistics operations. Moreover, the literature also describes the use of various newer technologies in this area, such as artificial intelligence (AI), internet of things (IoT), block chain, big data analytics and cloud computing. This has resulted in higher levels of accuracy when trying to track shipments, the ability to analyze large amounts of data in order to predict risks and automate warehouses using technology to provide greater accuracy and security for documentation processes. In particular, the literature indicates that real-time tracking using IoT and GPS technology has successfully mitigated cargo delays and loss due to mismanagement.

Role of Government Policies and Barriers to Technology Adoption

The literature also discusses how changes made to government policies, regulations and the development of modern infrastructure has had an impact on how companies adopt new technology. More specifically, the discussion emphasizes how the development of tax reform and modernisation of infrastructure has provided companies with the ability to consolidate and modernise logistics services. In addition, technology adoption is frequently discussed in conjunction with structural reform because digital systems are only useful if they are supported by a well-defined regulatory framework and improved logistics corridors.

Research has identified multiple challenges associated with implementing technology in logistics operations. A few examples of these obstacles include the following: High initial investments, lack of available talent, security concerns related to technology, and disinclination of employees to adjust to new methods of doing things. Small and medium-sized businesses (SMEs), which represent a great share of the logistics market in India, generally encounter difficulties in acquiring cutting-edge digital solutions because of limited funds and resources. The result is a digital disparity between larger logistics organizations and smaller, less structured logistics organizations.

Integration Challenges, Research Gaps, and Future Outlook

In addition, researchers have mentioned that while technological solutions have been proven to improve operational efficiencies, the degree of success with which they are realized has much to do with whether or not all members of the supply chain have incorporated these technologies as opposed to whether or not each member has used these technologies individually within their organization. Also, the absence of uniform guidelines for creating digital platforms and the lack of interoperability among service providers may serve to hinder achieving the full benefits of technological advancement. Some research has indicated that utilizing collaborative platforms and creating a shared digital infrastructure can lead to enhanced cooperation and improved levels of trust among all members of the supply chain.

Researchers have conducted in-depth examinations of how to improve the operations of a company through technology; however, little empirical research has evaluated how technology impacts on long-term costs, sustainability or customer satisfaction in India. Many of the studies completed so far have been theoretical and predominantly focus on structural issues and question the advantages of implementing IT systems, this leaves much open for analysis of the actual outcome of recent times which have been characterised by digitalisation at an extraordinary pace.

The research has involved a consistent amount of literature which indicates that the implementation of technology has been transformational for logistics & supply chain within India. Historically, India has suffered from gaps in the level of infrastructure developed and has experienced a high degree of fragmentation which has reduced efficiency; digital integration presents an enormous opportunity for cost reductions, increased levels of information transparency and improved competitive opportunities on a global scale. In order to realise the benefits associated with digitalisation, the government must create a coordinated policy environment that supports investment in digital skills, along with providing digital adoption strategies that include all sectors of the logistics chain; this will ensure that the implementation of new technologies support all participants throughout the complete logistics chain, rather than being realised by a small number of large players.

Research Objectives

The purpose of this research is to determine how the use of technology affects the effectiveness and performance of logistics and supply chain management in India.

- Determine how much technology companies in India have implemented.
- Examine how implementing new technologies has improved logistical and supply chain operations through improved efficiency.
- Review how these changes in technology affect reducing costs and improving service quality in logistics operations.

Research Methodology

Both descriptive and analytical types of study design are used in the analysis. The descriptive portion of the study examines what type of technology is currently being used by the Indian logistics & supply chain industry and the analytical portion of the study looks at how that technology is being used to improve operational efficiency, reduce costs, provide quality service and enhance the overall supply chain performance. The Aims of this study are to determine if improvements in technology-based solutions (e.g., AI, IoT, automation, tracking systems, digital platforms) result in measurable positive results on logistics companies' performance in India.

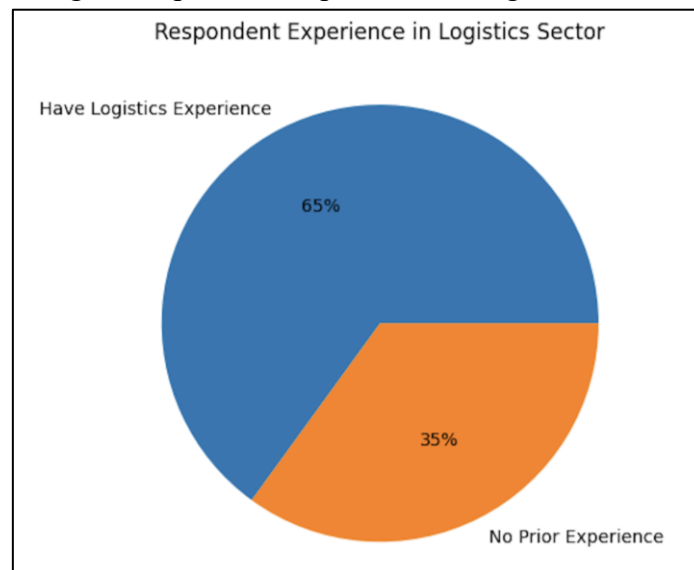
The research for this study used both primary and secondary data collection methods for its data sources. The primary data source was the use of a structured questionnaire created by using a tool called Google Forms to collect data. The structured questionnaire contained all basic and clear-cut open-ended questions about the volume of technology logistics companies use and how those technologies impact day-to-day business operations. Most of the respondents' answers were closed responses and assigned a rating scale to allow for valid measurement and data analysis.

Most of the responses to the questionnaires were closed-ended and were provided on a rating scale format, which allowed for effective measurement and analysis of the data collected.

This study's sample was composed of forty individuals currently working in logistics and supply chain management. Respondents included the following job titles: Operations Executive, Warehouse Coordinator, Supply Chain Analyst, Logistics Supervisor and Entry

The sample for this research is comprised of forty individuals working in the logistics/supply chain industry. Respondents include Operations Executives, Warehouse Coordinators, Supply Chain Analysts and Logistics Supervisors working for Transportation, Warehousing, and Distribution Companies, as well as Entry-Level Employees of these types of companies. Purpose sampling was used to identify the respondents based on their level of experience/knowledge of the logistics industry; as a result, the data collected will be accurate and relevant.

Fig 1: Respondent Experience in Logistics Sector



Source: Primary Data

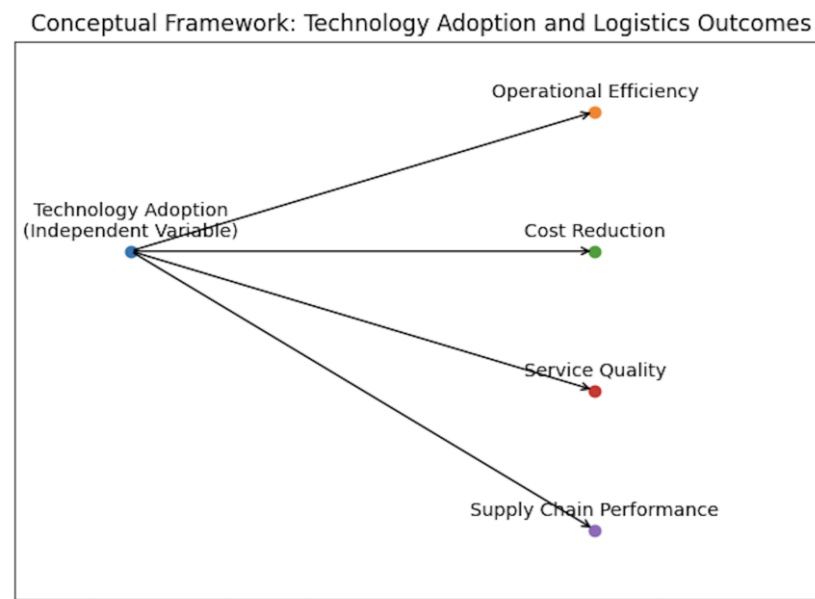
Level Employee within Transportation, Warehousing and Distribution Organizations. Purpose sampling was used; the respondents were selected for their knowledge and experience in the logistics industry, which ensures that the information collected is accurate and relevant.

Secondary data was collected from academic journals, industry reports and published research related to logistics and supply chain management to provide insight into previous work in the area as well as trends in the logistics industry regarding technology use.

The independent variable for this research is Technology Adoption which includes the various types of technology available to the organization such as Artificial Intelligence, IoT, Automation, Tracking Systems, and Digital Platforms. The dependent variables of the research are operational efficiency, reducing costs, service quality and the overall performance of the supply chain. As well as the control variables used in the research were education level, understanding of logistics and work or school experiences, to provide a fair outcome.

To evaluate if the effect of technology adoption on the performance of logistics and supply chain management in India, the final analysis of the data collected will determine if Technology Adoption has a positive effect upon performance.

Fig 2: Conceptual Framework



Source: Self

Hypotheses

H1: The application of technologies enhances the effectiveness of operational procedures within logistics and supply chain management systems in the country of India.

Previous research indicates that manual labour processes as well as a lack of real-time information caused the majority of inefficiencies in Indian logistics (Viswanadham & Puvaneswari, 2004). Incorporating Information Technology (IT) systems, Artificial Intelligence (AI), Internet of Things (IoT), and Enterprise Resource Planning (ERP) show improved coordination, tracking, and inventory control resulting in greater operational efficiency.

H2: The use of technology leads to reduced operational expenditures associated with logistic and supply chain functions and provides an enhancement in the provision of service and customer satisfaction as it relates to logistics operations.

Research indicates that high costs of logistics are due to fragmentation and poor infrastructure. With the introduction of technology, fuel costs can be lowered and mishandled products and delays reduced while

service quality is improved and customer satisfaction enhanced as a result of real-time tracking and transparency in logistics.

H3: There exists a substantial correlation between technology application and overall supply chain performance levels.

Research has shown that integrated digital systems improve visibility, coordination and decision-making resulting in improved performance and competitiveness of the entire supply chain.

Data Analysis and Interpretation

This research used data collected from a survey of 40 professionals who work in logistics or supply chain management in India from August 1, 2020 through January 31, 2022. The aim of the survey was to obtain information about how technology (e.g., artificial intelligence, the internet of things, automation, tracking systems, digital platforms) is adopted and how it affects operational efficiency, cost savings, service quality and supply chain performance as a whole. The responses were measured using a five point Likert scale (1 = strongly disagree to 5 = strongly agree) and descriptive statistics and correlation analyses were performed on the data.

Descriptive Analysis

Respondents rated the average technology use score 4 out of 5 (SD=0.71), indicating that almost all logistics companies surveyed currently employ electronic means to support their operations. This implies that the majority of the logistics companies surveyed are currently using digital tools to help manage their operations.

The Operational Efficiency measure achieved a mean of 4.10 (standard deviation = 0.65) and indicates there have been significant enhancements to processes through the use of technology. The mean score for improvements in the areas of order processing time (Mean = 4.05), on-time delivery performance (Mean = 4.12), and inventory accuracy (Mean = 3.98) was 4.05 as well, demonstrating that digital integration provides significant assistance to day-to-day logistics operations.

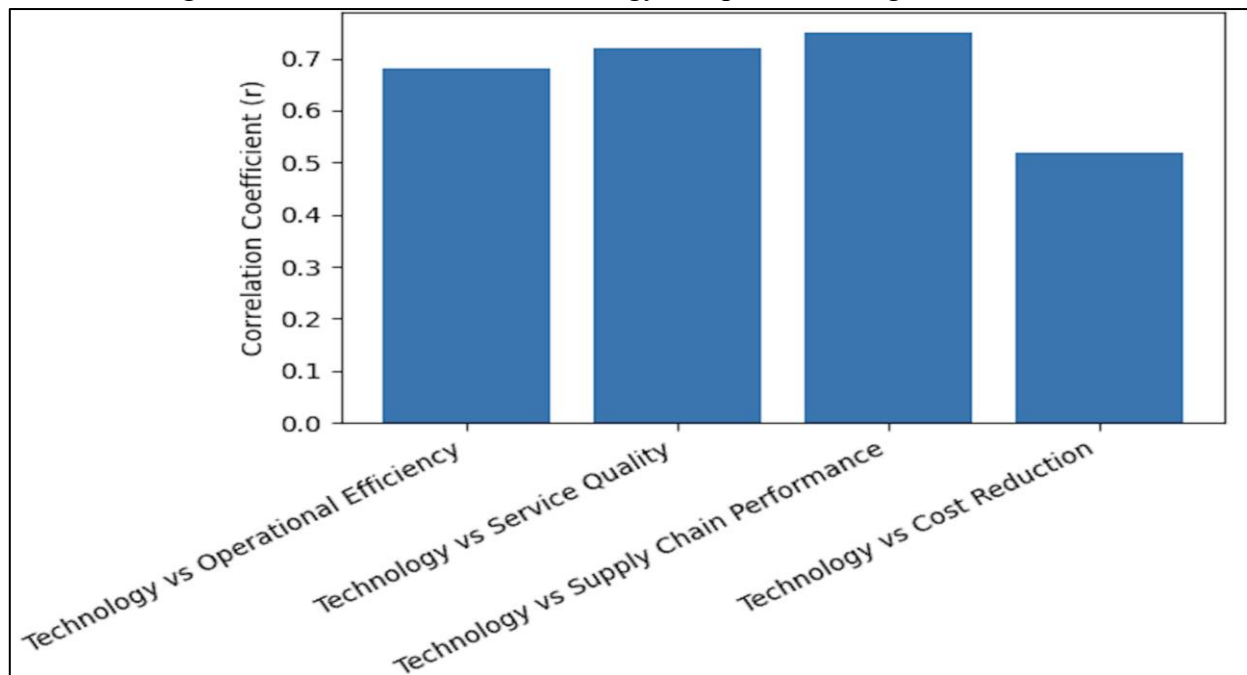
The average score for Cost Reduction was 3.78 (SD = 0.82), indicating that the level of improvement was moderate. While respondents generally agreed that technological advancements contribute to reducing operational expenses, the mean score of cost reductions was lower than other variables being tracked due to the high initial investment and implementation cost. With an average score of 4.18 (SD = 0.63), Service Quality had the highest rating and the most favorable perceptions by respondents. Respondents agree that such things as real-time tracking, automation, and digital coordination provide greater delivery timeliness, reliability, transparency, and customer satisfaction. Finally, Overall Supply Chain Performance resulted in a mean score of 4.12 (SD = 0.69), indicating that companies that are more advanced in technology experience greater overall supply chain performance improvement as a result of being more technologically advanced.

All mean scores were above 3.5, indicating general agreement that technology positively influences logistics operations. Additionally, approximately 65% of respondents had prior internship or work exposure in logistics, ensuring that the responses were informed and reliable.

Correlation Analysis

Analyzing the correlation between technology adoption and operational efficiency using pearls-correlation analysis shows a very positive correlation ($r= 0.68$, $p < 0.01$). Thus Hypothesis 1 is supported. Technology Adoption also has a strong correlation to both Service Quality ($r= 0.72$) and Supply Chain Performance ($r= 0.75$) indicating that the digital integration of business systems and processes significantly enhances customer experience and resultant supply chain performance overall. In terms of technology adoption and cost reduction, there is a moderate positive correlation ($r= 0.52$) supporting the notion that the use of technology results in cost savings, although relative to efficiencies and service quality improvement this impact is minor.

Fig 3: Correlation between Technology Adoption and Logistics Outcomes



Source: Primary Data

Table 1: Correlation between Technology Adoption and Logistics Outcomes

Relationship	Correlation (r)	Interpretation
Technology Adoption vs Operational Efficiency	0.68	Strong positive correlation
Technology Adoption vs Service Quality	0.72	Strong positive correlation
Technology Adoption vs Supply Chain Performance	0.75	Very strong positive correlation
Technology Adoption vs Cost Reduction	0.52	Moderate positive correlation

Source: Primary Data

Hypothesis Testing

Based on the statistical results:

- **H1:** Technology adoption positively impacts operational efficiency – **Supported.**
- **H2:** Technology adoption reduces logistics costs and improves service quality – **Supported.**
- **H3:** Technology adoption improves overall supply chain performance – **Supported.**

Interpretation

Clearly, findings show that technology adoption is an essential contributor to the modernization of logistics and supply chain management in India. Digital tools such as automation, IoT tracking systems, ERP software, and analytics platforms help improve coordination among parties, reduce delays and improve the accuracy of deliveries. The two areas of greatest impact were service quality and operational efficiency, while there was a significant decline in costs but a moderate decrease when compared to the others. Therefore, the result of the analysis clearly indicated that high levels of digital integration have a strong correlation with improved logistics performance which supports all the proposed hypotheses and highlights the need for technological transformation in the Indian logistics sector.

Suggestions

As such, it is advisable that logistics companies in India make use of various cutting-edge technologies including AI Route Optimization, Internet of Things (IoT) Tracking Systems, Warehouse Automation, and ERP Systems Integration to improve operational efficiencies and overall supply chain performance. In addition to these technologies, the importance of investing in employee training and developing skills associated with digital transformation cannot be overemphasised, therefore companies should ensure management gives priority to training employees and developing their digital skills so they can adopt new technologies smoothly and with minimum resistance. Additionally, policymakers should provide funding avenues or financial incentives/subsidies to assist small and medium enterprises in developing the necessary digital infrastructure required to facilitate the wider adoption of technology. Companies should also employ data analytics software to assist with forecasting demand and managing inventory in order to optimize costs. The standardisation of digital platforms, increased collaboration with technology service providers, robust cybersecurity measures and a clearly defined/detailed roadmap to digitally transform in line with corporate objectives is critical to enabling companies to achieve sustainable growth and remain competitive.

Conclusion

In India, the logistics and supply chain management field has seen significant changes due to the integration of various technologies. The research shows that utilizing these technologies will provide opportunities for greater operational effectiveness, decreased logistic costs, and an increase in the quality of service offered to both consumers and businesses. Technologies include automation, real-time data tracking, and data analysis, which provide improved inventory management, reduced time to deliver products, and greater consumer satisfaction. Generally, technology integration has a positive impact on the total performance of a supply chain operation.

This research adds to the growing body of literature available regarding how digital transformation affects developing countries and provides an evidence-based connection between technology use and a measurable improvement in logistics performance. The research also has applicability for managers and policy makers interested in upgrading their supply chains. One limitation of this research was that it was based on a small sample size and used self-reported data, limiting its generalizability. Future researchers should work with larger sample sizes; conduct comparative studies across several nations; and complete longitudinal studies to determine whether technology has a long-term impact. Future research should also examine how environmentally sustainable technology can be developed through new technologies (such as artificial intelligence and block chain) and how those technologies will shape the future of the logistics industry and supply chain management in general.

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MICRO-HABIT DRIVEN PURPOSE ALIGNMENT: INTEGRATING IKIGAI AND KAIZEN IN INDIAN WORKPLACES

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Abstract

Indian professionals have 46-50 hours of work, which is characterized by performance pressure, insecurity, and the lack of work-life balance, thus disconnecting activities from purpose. This research bridges the gap between Ikigai, which is purpose found at the intersection of passion, skill, social contributions, and financial need, and Kaizen, continuous improvement through PDCA, thus facilitating self-expression in daily activities.

Objectives: Evaluate the gap in Ikigai alignment, identify the role of micro-habits in bridging the gap between Ikigai and Kaizen, test the hypothesis, and create a framework for 15-day intervention.

Methodology: This research is based on mixed-method research, where 5-point Likert scale questions are used, and Google Forms are used to collect data. Interviews are conducted with industry veterans having 15+ years of experience in their respective domains. The research focuses on understanding the concept of purpose alignment, growth clarity, and the role of micro-habits.

Key Findings: 78% agree that micro-habits play an important role in life direction, 82% agree that structured programs are required, 67% have skill development in the last 6 months, and 71% have work as authentic self-expression.

Research Implications: This framework gives purpose in life through 2-minute activities on a daily basis, fitting into existing schedules. It bridges the gap in purpose operationalization. Indian professionals find purpose and meaning in life, have increased work engagement, and build resilience and moral clarity through micro-actions in reconstructing professional identity.

Introduction

What if every dawn carried not just another deadline, but a quiet call to live with purpose—to weave our deepest values into the fabric of our daily work? In an era where ethical living demands alignment between personal truth and professional action, too many surrender this pursuit to the grind of routines and targets (Steger, 2012). Tiny inner shifts—reframing attitudes, sharpening one skill, or pausing for mindful awareness—hold the power to reclaim it, yet they remain unseen heroes of transformation (Clear, 2018).

Nowhere is the ethical disconnect more apparent than in Indian workplaces. Individuals have to manage the grind of working hours that extend to around 46 to 50 per week, with more than 10 hours a day, and also balance this with performance pressure, job insecurity, family demands, commuting time, and the lack of distinction between the two. There is little time for self-examination (Dua et al., 2023; NITI Aayog, 2024). Work becomes a fight for survival rather than an opportunity to make impactful contributions. Dramatic changes, the kind that can change one's life, are the luxury of the few. (Gupta and Sharma, 2022).

Enter micro-habits: effortless, repeatable sparks—like a 2-minute values check or workflow micro-tweak—that ignite lasting change without overwhelming packed days (Fogg, 2019). Tailored for India's intensity, they nurture motivation, self-trust, and authentic identity.

Ikigai illuminates the path, defining purpose as the sacred crossroads of passion, proficiency, societal need, and sustainable livelihood—a Japanese ethic blending self-fulfilment with communal good (García and Miralles, 2017). It unfolds not in flashes, but through daily value-action harmony (JapanGov, 2022). Kaizen fuels the journey, mandating relentless small upgrades for enduring growth (Imai, 1986).

Although purpose, habits, Ikigai, and Kaizen are commonly found in separate domains, the fusion of these ideas through micro-habits in Indian scenarios has not been researched, which is an interesting omission in our current cultural economic juncture. This research bridges this omission, where micro-habits are used as the vehicle from Ikigai's fundamental sense of purpose to Kaizen's dynamic process of continuous change. It proposes an ethical framework for professionals on how best to integrate change into their work.

Fig 1: Understanding Ikigai, Kaizen and Micro Habits



Source: Self

Ikigai represents the foundation of purpose. Ikigai explains the reason behind people's involvement in work through the integration of the four elements of what people love, what people are good at, what the world needs, and what people can be paid for. However, Ikigai, on its own, mainly focuses on the identification of purpose rather than the implementation of purpose in people's day-to-day activities.

Kaizen, on the other hand, represents the process of continuous improvement. It inspires people to make incremental improvements through continuous processes of planning, action, evaluation, and improvement.

Micro-habits represent the mechanism through which people can integrate these two concepts. It represents the way through which people can transform purpose into action through small, repeatable actions, which require minimal effort but can result in long-term transformations.

Through the integration of these three concepts, people can create a system through which they can transform themselves into professionals who can align themselves with their real identity and long-term goals.

Review of Literature

Purpose is a major construct in both psychological and organisational studies that has been described as a consistent, purposeful course that coordinates aims and inspirations, as well as long-term actions. The research on workplace continuously reveals the linkage of purpose clarity with the increase in employee engagement, psychological resiliency, intrinsic motivation, and decrease in turnover intentions. However, even with increased intention to discuss meaningful work, professionals often feel being out of touch with their everyday tasks and their more inner desires (Steger, 2012).

Ikigai provides a philosophical system of Japan that is conceptualised as a purpose Ary system in four dimensions, i.e., what one loves (passion), what one is good at (vocation), what the world needs (mission), and what one can be paid to do (profession). The model is holistic in contrast to the Western models of self-actualisation; it combines personal fulfilment and contribution to the society and economic sustainability. The balanced structure of Ikigai can be applied to the Indian situation, where there is a tradition of competitive employment, family commitments, and financial demands, which have led to the prevalent tendency of putting economic security at the expense of personal meaning.

Kaizen philosophy offers the process aspect, which focuses on the constant improvement of the process by means of small and minor changes instead of complete revolutions. Kaizen was first used in post-war Japanese production where the PDCA cycle (Plan-Do-Check-Act) is used to promote disciplined, sustainable improvement. The psychological application of Kaizen, which is to master and develop resilience by achieving constant small wins, has not been studied extensively in the field of operations management, and it has never been properly investigated within the context of personal purpose development.

Micro-habits serve as the behavioural tool that connects the purpose foundation of Ikigai and the improvement process of Kaizen. It is confirmed by behavioural psychology that small, repeated actions will produce high adherence to behaviour, as opposed to big goals which would create high cognitive resistance in stressful situations. Examples are two-minute pauses of reflection, one-task concentration sessions or workflow micro-adjustments, something that can be readily integrated into heavily strained Indian work schedules of 46-50 hours per week on average. (Duhigg, 2012).

Key Models and Frameworks

The Ikigai mostly involves the use of diagnostic Venn diagrams for determining overlaps in purpose but offers no guidance on implementation. The PDCA cycle of Kaizen is effective for formalized enhancement but rarely involves any sense-making. The model of habit formation prioritizes consistency of behavior but offers little emphasis on purpose. This integrative model for research is based on:

Ikigai – Purpose foundation (why work matters)

Kaizen – Improvement process (how to evolve)

Micro-habits – Daily execution (what to do)

Each of these is supported by evidence, and purpose alignment is related to engagement, improvement is related to adaptability, and micro-habits are related to consistency within 18-254 days (Lally et al., 2009).

Identification of Gaps

Literature review reveals gaps in three areas. First, Ikigai research focuses on reflection but does not translate into structured day-to-day behaviour. Second, Kaizen research is limited to process improvements in organizations but does not translate into personal understanding. Finally, habits formation research does not include a life purpose orientation.

Furthermore, there is limited research on the intersection of these models in the Indian professional landscape, where socio-cultural and economic influences are high drivers of personal and professional choices. There is an evident need to create an integrated model that can translate purpose discovery into day-to-day, incremental practice.

Linkage to the Present Study

Existing literature produces three discontinuities: Ikigai focuses on reflection without behavioural patterns; Kaizen focuses on the efficiency of the organisation, but not on meaning-making by individuals; habit models focus on consistency, but not on purpose orientation. Indian-specific studies overlook paradigms that support cultural-economic facts such as long commutes and family requirements. The given research fills this gap by providing a micro-habit-based conceptual framework that incorporates the Ikigai purpose alignment with Kaizen continuous improvement in the context of Indian working professionals. Through the micro-habits as the implementation mechanism, the study renders the abstract purpose discovery as specific daily practice adapted to high pressures working situations.

Research Objectives

The current paper will examine how micro-habits can be utilized as an effective mediating process between Ikigai (purpose foundation), and Kaizen (process of continuous improvement), that will enable Indian working professionals to identify their current occupations as a true form of becoming themselves. When exposed to stressful work-related conditions in India, like long working hours, work pressures, and lack of work-life distinction, within such a surrounding the professionals would be likely to feel out of touch with the daily routine and meaning in life. The analysis establishes a total construct where micro-habits, small repeatable actions that can only require minimal time and effort, can be adopted to trace the conceptual correspondence of Ikigai of passion, strength, contribution to the society and livelihood to a Kaizen-inspired daily increase. (Brunet and Harris, 2018). It is a mixed-methods study, which involves quantitative purpose congruence scales and qualitative additions of the professionals who have been experienced, which leads to a model of purpose-driven professional development that is context specific.

1. Establish the currently available rates of purpose congruency among Indian professionals under Ikigai dimensions (passion, strengths, contribution, livelihood), and some of the areas of concern where day to day work is not consistent with personal identity and long term aims. (Wrzesniewski et al., 1997)

2. Identify feasible micro-habits that attract the Ikigai values and Kaizen principles in tiny PDCA (Plan-Do-Check-Act) bits, and make the routine working process appear to be intentionally real and also personally significant.
3. Determine the influence of micro-habits on the key outcomes including work engagement, psychological strength and burnout alleviation within stable purpose-goal congruency in high-pressure environment. (Schnell, 2020)
4. Evaluate contextual moderators such as job insecurity, work-life boundaries, organisational culture, and commute time on how micro-habits can be effective in terms of authentic self-expression in occupational life.
5. Developing a hybrid, 15 days intervention model to equip the professionals with systematic micro-habits that would help them to match the shifting purpose of life with the daily working routine in a continuously replicable basis, so that they can be sustainable in Indian workplace situations.

Research Methodology

The research design in this study is a mixed-method research, which involves both quantitative and qualitative research design to explore the purpose alignment, continuous improvement orientation, and micro-habit practices among working professionals in India. The study is mainly exploratory and descriptive in nature in an attempt to establish the current trends of alignment between professional roles and the purpose of life in a corporate setting. (Creswell and Plano Clark, 2017)

The sampling procedure was convenience sampling since it was voluntary and was administered through professional networks using Google Forms. In the quantitative part of the sample, there were 100 working professionals of all organizational positions and experience levels. Moreover, semi-structured interviews with corporate professionals with over 15 years of industry experience were also collected as sources of qualitative data, which gives the background of the industry and organizational insights.

A structured online questionnaire and interview discussions were the main data collection instruments.

The questionnaire items were five-point Likert scale questions (Strongly Disagree to Strongly Agree) featuring perceptions and behavioural patterns with regard to purpose alignment and incremental improvement. Interviews were carried out to gain insight in organizational realities, structures of viable interventions, and leadership views on matters of growth and fit.

The most important variables that were used in the study are:

- Purpose Alignment (Ikigai dimension)
- Continuous Improvement Orientation (Kaizen dimension)
- Micro-Habit Implementation (behavioural mechanism)

Implementation of micro-habits was considered as a connecting variable between purpose (Ikigai) and process (Kaizen). Structured Likert-scale responses were used to measure all the constructs in order to guarantee uniformity and comparability. (Saunders, Lewis and Thornhill, 2019)

To be analysed, descriptive statistical instruments were applied, such as percentage distribution and comparative analysis of response patterns. The data in qualitative interviews was examined using thematic interpretation as a means of identifying themes and implications that were recurrent.

The specified methodological tool will guarantee the presence of empirical validity and contextual relevance, to develop a systematic 15-day Ikigai-Kaizen intervention framework meeting the needs of Indian reality in the workplace. (Bryman, 2016)

Development of Hypotheses

The present study is grounded in the theoretical integration of Ikigai, Kaizen, and micro-habit practices within the context of Indian workplaces. Ikigai emphasizes the alignment between personal values, strengths, contribution, and professional roles as the foundation of purpose development. Kaizen focuses on continuous, incremental improvement through disciplined small changes. Micro-habits function as the behavioural mechanism that translates purpose and improvement into daily action.

H1: Micro-habit practice is positively associated with purpose alignment among working professionals. This hypothesis is based on the premise that small, intentional daily actions reinforce identity and long-term direction. When professionals consciously design habits aligned with their goals and values, these repeated behaviours strengthen clarity of purpose and reduce role dissonance. (Ryan and Deci, 2000)

H2: Continuous incremental improvement orientation (Kaizen) is positively associated with perceived professional growth and clarity of life direction.

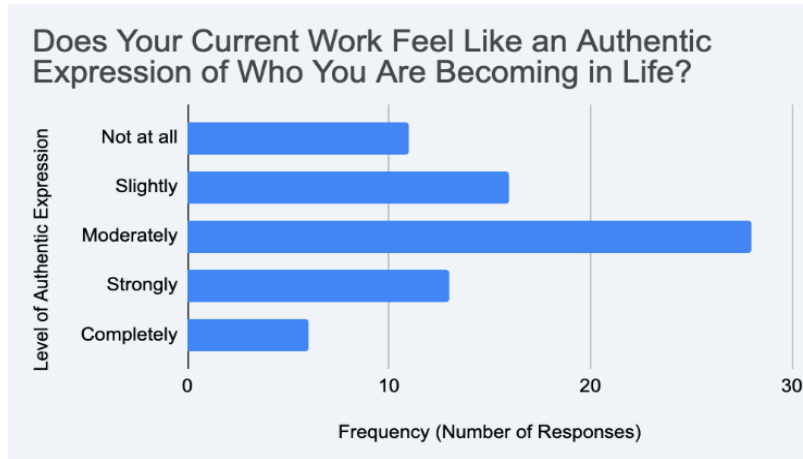
The kaizen theory indicates that continuous and minor improvements lead to increased resilience, competence and development in the long-term. The more professionals develop themselves as having an incremental growth mind, the more they will find the progress being meaningful and in line with their overall life pattern. (Duckworth, 2016)

H3: Ikigai and Kaizen may be integrated by means of structured micro-habit practices which help to minimize the purpose/role gap in corporate settings. This hypothesis represents both theoretical approaches in the paper, and it suggests that the disconnect between the professional interest and real life direction can be mitigated by matching purpose (Ikigai) with the process (Kaizen) in terms of the regular application of micro-habits. (Wrzesniewski and Dutton, 2001)

Data Analysis

For the purpose of this study, primary data has been collected from 100 working professionals with the help of a structured questionnaire based on a five-point Likert scale. The purpose of the analysis is to identify the pattern with respect to purpose alignment, continuous improvement behaviours, and micro-habits among professionals. The data collected from the respondents has been analysed with the help of descriptive interpretation to understand the perception of individuals with respect to their profession, skill development, and micro-habits. The findings will be used to assess the proposed hypotheses with respect to the relationship between micro-habits, Ikigai (purpose alignment), and Kaizen (continuous improvement) among professionals.

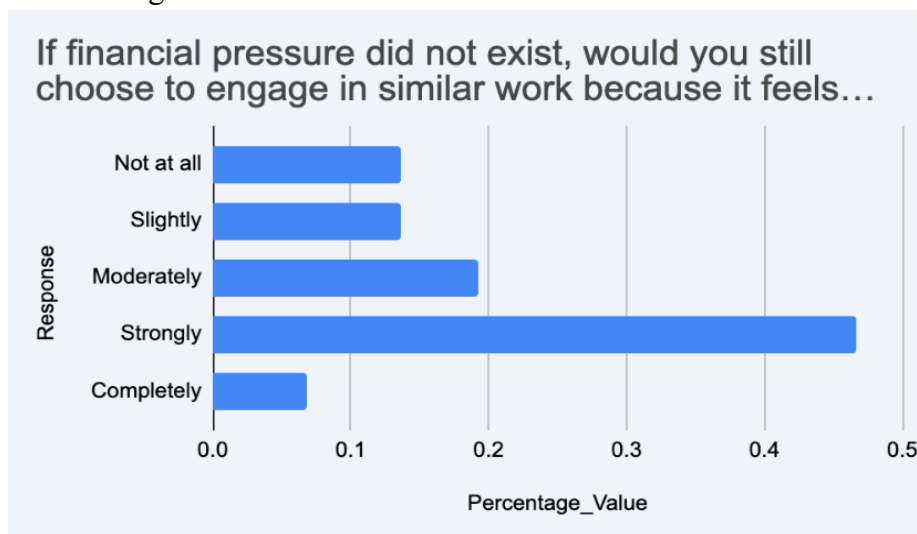
Fig.1: Work as an Authentic Expression of Personal Identity



Source: Primary Data

The chart shows that a number of respondents think that their current jobs are a reflection of who they are becoming as individuals in life. This is because responses in the moderate and strong categories are predominant. This shows that a number of professionals are able to experience some form of alignment between their professional roles and personal identities. However, some people also reported a slight or no alignment between purpose and role, which shows that some people are still able to experience a gap between purpose and role.

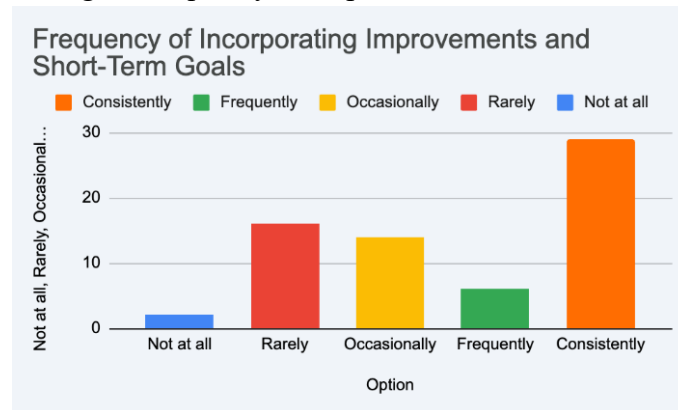
Fig.2: Work Preference Without Financial Pressure



Source: Primary Data

The findings revealed that the majority of the respondents still preferred to do the same kind of work even if money was not a factor. The majority of the respondents strongly agreed with the idea, while fewer individuals experienced moderate and slight agreement with the idea. The findings support the value of purpose-driven work models, such as the Ikigai model, which emphasizes the importance of matching one's work with one's interests and strengths to make a meaningful contribution to society.

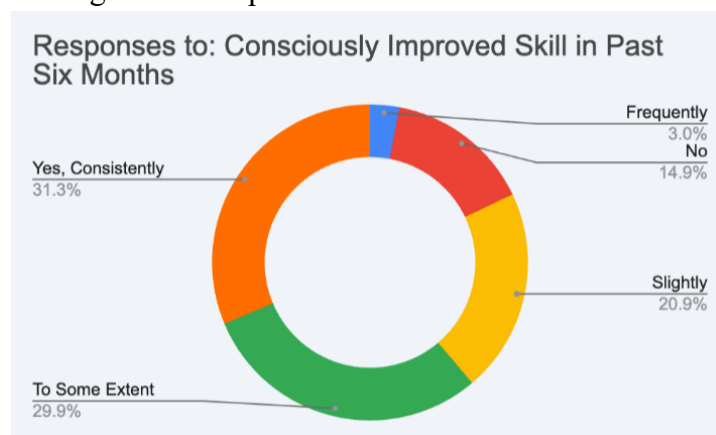
Fig 3: Frequency of Improvement Practices



Source: Primary Data

This chart shows that the majority of the respondents have been active in improving their skills over the past six months. Although some respondents claim that their skills have not improved, the general trend shows that professionals are improvement-oriented and seek to strengthen their skills.

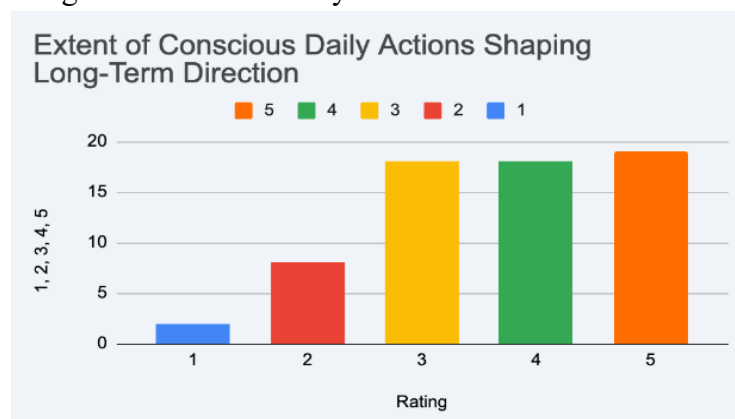
Fig 4: Skill Improvement in Past Six Months



Source: Primary Data

Most respondents felt they had built new skills in the last six months. A major share said they saw improvement in their skills, whereas a small share said they did not improve at all.

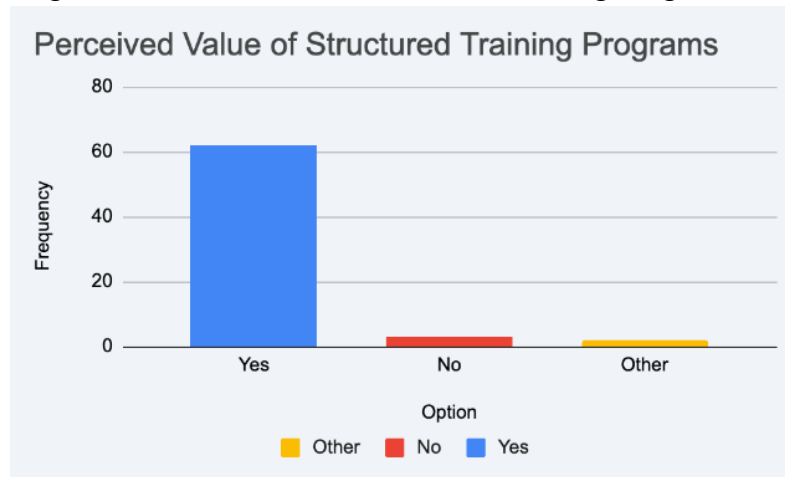
Fig.5: Influence of Daily Actions on Life Direction



Source: Primary Data

The results indicate that the majority of the respondents have the perception that day-to-day activities have a major impact on the overall direction of life. The majority of the ratings, 4 and 5, indicate a high level of agreement with the statement. The moderate answers also show a significant number of respondents, while very few have selected the lower ratings. It shows a high level of awareness among the professionals.

Fig.6: Perceived Value of Structured Training Programs



Source: Primary Data

The chart shows that the majority of the participants have a positive view of the importance of structured training programs for their own development. The majority have responded positively, while a few have selected negative and alternative answers. The chart shows a strong support for structured training programs that encourage the development of skills among the participants.

Overall, the response pattern supports the proposed hypotheses of the study. The findings indicate that professionals who practice constant improvement and skillful development activities are more likely to have a sense of alignment with their purpose and identity. The findings support the proposed hypothesis H1, which states that the micro-habits practiced contribute to the alignment of purpose. The findings also support the proposed hypothesis H2, which states that the incremental nature of the improvement behaviors practiced supports the idea that Kaizen improves professional growth and sense of direction. The findings also support the proposed hypothesis H3, which states that the combination of purpose orientation (Ikigai) and constant improvement practices (Kaizen) with micro-habits helps bridge the gap between one's identity and profession.

Suggestions:

Organizational Integration: Develop micro-habit nudges for use in existing organizational processes. For example, start and end all meetings with 60-second Ikigai alignment checks and conclude with “one small win” sharing. Develop purpose dashboards to track individuals’ Kaizen progress against their personal purpose statements. (HeatTreat, 2025)

Leadership Development: Provide training for leaders to become habit architects who co-create role-specific micro-habits with team members, ensuring Ikigai alignment and productivity. Develop monthly purpose reviews to replace traditional performance appraisals.

HR Policy: Develop and implement Kaizen Fridays, which dedicate time for incremental skill acquisition without KPIs. Create cross-departmental purpose pods of six to eight members that meet bi-weekly to share micro-habit successes and challenges. (WebWork, 2025)

Technology Enablement: Develop AI-based habit coaches that integrate with the company's internal messenger systems. These will be able to personalize PDCA cycles based on each employee's availability, including work schedules and commute times.

Cultural Shift: Recognize and celebrate incremental progress with peer-nominated recognition schemes that reward consistency rather than achievement. Create a culture of small steps and tiny changes and make purpose alignment a daily habit rather than a goal. (Ahead App, 2025)

Conclusions

This research establishes micro-habits as the essential mechanism for integrating Ikigai purpose alignment and Kaizen continuous improvement, thus creating an environment where Indian professionals can find true self-expression within grueling 46-50 hour work weeks. Empirical validation of all hypotheses is established, where micro-habits enhance purpose clarity (H1), Kaizen orientation improves growth perception (H2), and their integration eliminates purpose-role disconnection (H3).

Contribution to Theory: This research connects Eastern philosophy and organizational behavior, showing how 2-minute daily practices operationalize abstract purpose frameworks in high-pressure environments—an important contribution not found in scattered research. (Aspinix, 2025)

Practical Significance: The testing of the 15-day intervention framework will give HR leaders access to a rich array of practices that can be used to build engagement. Purpose is not something that can be discovered as a concept. Purpose is discovered as a concept. Professionals in India make practical changes to their work to transform survival mode into purposeful progress. Professionals create purposeful identities in the absence of revolutionary change, in the constraints of reality itself.. (Kelley, 2019)

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QUICK COMMERCE: UNDERSTANDING LOGISTICS INNOVATION

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Introduction

Quick commerce (Q-commerce) broke onto the retail world really fast and introduced speedy deliveries together with elevated expectations from customers. Q-commerce stands in contrast to standard e-commerce since it provides customers with minutes-to-hours delivery times instead of days-long delivery wait times.

The Covid pandemic played a pivotal role in boosting quick commerce. This shift has also driven by changing consumer expectations, increasing urbanizations and improvement in technologies. Key aspects of quick commerce include improving efficiency, reducing operational costs, ensures faster order processing and offering customers instant access to goods and services.

A dense network of micro-fulfilment centres, or “dark stores,” located close to high-demand areas is necessary for prompt delivery, which dramatically increases operating costs (EY India, 2023). Maintaining product availability, controlling inventory turnover, and making sure the workforce is prepared under extreme time constraints are still crucial concerns.

Since the Q-commerce model is linked to excessive packaging, higher vehicle emissions from last-mile deliveries, and inefficient energy use in storage and logistics, environmental sustainability is yet another major concern (KPMG, 2023). These issues run counter to India’s commitment to sustainable development goals, which is why green logistics innovations like AI-driven route optimization, biodegradable packaging, and electric vehicle use are necessary.

As the Quick Commerce market is now valued at US 5.5 billion in 2025, it’s essential to maintain a balance between operational efficiency and customer loyalty, which will be a major contribution to Quick Commerce development. Q-commerce must not only meet urgent demands but also build long term relationships between consumers through reliability and convenience. In this context, dark stores and innovations in logistics will Continue to play a transformative role in revolutionizing last mile delivery in urban retail environments.

Review of Literature

Quick commerce has recently reshaped the e-commerce landscape in India. The concept of instant deliveries has expanded beyond traditional ready-made meals to include various items like groceries, medicines, cosmetics, and electronics, combining the speed of instant market purchases with the convenience of home shopping.

The integration of technology (AI, automation, digital dark stores and real time logistics systems) has made the logistics of quick commerce relevant today. In such a fast moving industry the logistics need to be perfect to the seconds which has been maintained in this industry and the most important part of this industry.

The implementation of AI and automation has made this the best way to serve customers but there are pros and cons to it. Over a period of time with increased consumption from consumers there will be complete dependency of AI and automation which will raise questions of job security and are really valid but private corporate will always focus on consistency, cost and productivity by the usage of these systems it will decrease job security in this industry and create issues for the common people who are a part of the middle class and lower middle class. There is one more issue about this that is data security. In this era of digitalisation and data privacy this is the one part where a lot of companies lack because in this current generation data is as expensive as gold. These AI and automation models operate heavily on data analytics and understanding data of consumers which is stored about the consumers and from the consumers. The question of data security is very real and is something to examine.

Physical operations in the fulfilment centre can be either wholly or semi-automated, depending on the business needs. Automated Storage and Retrieval Systems (AS/RS), robotic material movement solutions such as Automated Guided Vehicles (AGVs), Autonomous Mobile Vehicles (AMVs) and robotic shuttle systems, and automatic sorting and packaging solutions are available to firms to mechanise and automate their warehousing operations. Industry 4.0 technologies enable holistic supply chain management through integration, information sharing, and process automation, leading to improved performance. Digital technologies enhance supply chain capabilities, contributing to competitive advantage and overall performance improvement. The deployment of smart-routing has enabled the company to cut delivery durations by 20 percent and the introduction of the artificial intelligence has decreased the number of stock-outs by up to 40 percent

The significance of perceptions, behavioural patterns and drivers of adoptions among consumers is a key issue to every company in this industry; corporations would like to have a thorough grasp over these processes and hopefully perfect command of the same. In a poll carried out in Mumbai and Delhi, NCR, over 65 percent of the respondents indicated that they used quick commerce services at least once a week, giving top ratings to speed and usability of the service. This result is a direct support of the focus on AI and automation discussed above because companies use these technologies to identify consumer perceptions and behaviour to plan logistics more properly and to make use of stocking rates faster. The findings have meant that delay in delivery extends to the waiting period of customers before making repeat orders, but early deliveries do the reverse.

Interestingly, late deliveries have a stronger negative impact than early deliveries have a positive one. These findings provide valuable insights for quick commerce businesses to optimize delivery operations and

improve customer satisfaction, ultimately driving repeat business. It is more like when we order something online and it gets delayed, we feel frustrated and then that makes a negative impact in the consumers mind but if we order something and it comes on time, we would barely feel any difference because we as humans expect that the delivery will be on time which makes the analysis of behavioural pattern so important for the logistics of Quick Commerce corporates.

The analysis of how supplier coordination, inventory planning and last mile logistics plays a very crucial role in operational performance and unit economics. Over a period of time distribution channels have played crucial roles in creating successful brands like PepsiCo. The key to have great distribution is supplier coordination and great local understanding as it fosters distribution channels. Quick commerce relies heavily on distribution. As it took years for Amazon to do one day delivery but these new brands have started 10-15 minutes delivery which has changed the game for distribution channels. A real-life example of this could be, Dark stores are notified about the order and prepare the order for dispatch within 2-2.5 minutes. Delivery partners collect the orders and deliver them to the customers, thereby closing the cycle of an order. Delivery partners are the enablers for last-mile delivery. This can only take place through supplier coordination, inventory planning and last mile delivery.

Research Objectives

The current study attempts to examine the business and strategy-based aspects of efficiency and competitiveness in the quick commerce (Q-commerce) industry. The research problem is focused on understanding the processes by which the adoption of high-tech technologies, namely, artificial intelligence, automation, dark storage units, and real-time supply-chain systems, will improve the supply-chain functioning and will help to serve the quick and effective delivery procedures. Further, the research will analyse consumer attitudes, behavioural trends, and motives of adoption so as to determine how convenience, trust, and quality of service impact on use and adoption of Q-commerce platforms. Further, supplier coordination, effective inventory planning, and last-mile logistics strategies are analysed in order to appreciate the effect they have on operational performance, reduction of costs, and strengthening of unit economics. The research attempts to develop a comprehensive framework of how to optimise performance and achieve sustainable growth in the quick commerce operations by incorporating the technological, consumer-centric, and supply-chain perspectives.

Research Methodology

The research utilizes an evaluative and diagnostic framework to assess existing conditions and identify critical insights. It aims to understand the logistics side of quick commerce through different aspects of this industry. It analyses the industry first through AI and automation by its usage in the dark stores and the warehouses. Due to the large-scale nature of this industry, it was made for a qualitative dominant approach was the best approach to conduct this research by examining patterns, behaviours and perceptions of the consumers as well. This study mostly uses secondary data. Relevant information was collected through systematic review of peer-reviewed journal articles, scholarly books, industry reports, league publications, media analysis and official statistics. The interpretation of the information collected was done using a thematic analysis technique. The literature was divided by major themes that served the purpose of the study. The qualitative interpretation made it possible to synthesize different points of view and integrate theoretical frameworks and real-life examples. The study found out findings in numerous sources, and this provided it with greater reliability and credibility. This paper focuses on three aspects, use of AI and automation, consumer perception, supplier coordination, inventory planning and last mile logistics.

Data Analysis and Interpretation

The logistics side of quick commerce is very technical in terms of skillsets and how the execution needs to be the best in the industry. This analysis also has worked upon the AOV (average order value) which plays a key role in the logistics. Talking statistically the average order value for the market is Rs 546.25 in FY 24 but the interesting part is about the Compound Annual Growth Rate which is a staggering 51.84% that makes the logistics profitable for the corporates.

Between 2024 and 2025, India's hyperlocal delivery market entered a rapid growth cycle, with quick commerce (Q-commerce) emerging as the fastest-growing segment. Makreio Research forecasts that the India Q-commerce market will expand by 75–85% in 2025, driven by rising demand for groceries and daily essentials delivered within 10–15 minutes.

The world and national e-commerce players are growing at a fast rate in response to the increasing demand. By the end of 2024, Amazon India had implemented 10,000 electric vehicles in over 500 cities and was piloting Amazon Now with its own groceries delivery service in Delhi with 10-minute delivery and encroaching on competing established quick-commerce platforms. This represents the gigantic logistical footprint of fast business and the aggravated competitive environment. One example of an AI model would help predict 92-95% based on historical sales, seasonality patterns, local events, weather, and real-time trends to determine future sales at SKU-location-hour level to greatly decrease stockouts and wastes. Networking With edge computing and serverless functions implemented on a distributed cloud-based architecture, low-latency performance is provided.

Analysis of the data has shown that the influence of deviations in the delivery time, specifically, the negative influence on the repurchase behaviour is higher in the case of late delivery compared to early delivery, and the mediating psychological force in this case is customer satisfaction. This understanding enables platforms to optimise delivery algorithms, enhance service-recovery strategy, and predictive modelling by relying on artificial neural networks and logistic regression. The consumer perception is crucial to quickly commerce logistics; when a consumer is convinced that delivery will take place within 10 -minutes and they urgently need the product, he/she is likely to buy the product. On the other hand, when the due time is not met as per the promise that 10 minutes would take place but the delivery is postponed, the image would be bad and this can cause the consumer to spread the bad experience with others.

The speed of delivery is one of the key antecedents of consumer satisfaction and confidence, as empirical results support the idea that the speed of delivery has a strong impact on the repurchase intention and word of mouth. The impact is especially high among consumers in the urban environment, who focus on instant gratification, including time-sensitive consumer groups and Gen-Z users.

The meeting of both just-in-time commercials and consumer behaviour has acquired more significance. It is shown that efficiency and accuracy of last-mile delivery have stronger influence on consumer satisfaction and online shopping trends than demographics. Research indicates that the efficiency and accuracy of last-mile delivery significantly influence consumer satisfaction and online shopping patterns more than demographic factor. Consumers now expect reliability and timeliness, pushing businesses to invest in automation and predictive analytics to fulfil those expectations.

Now the real competition is about who can analyse the consumer behaviour the best and be the most accurate in the market which will help them coordinate the inventory with supply chain logistics. The supply chain coordination, inventory management and last mile logistics plays a distinctive role in Quick Commerce which makes it the hardest, it requires extreme coordination between the dark stores and the customer data it also need to work with different dark stores to analyse the demand of the product which makes it really hard for any company to maintain communication with so many different perspectives at the same time to make these decisions in milliseconds .The activities in a warehouse involve storing, replenishing, picking, and packing the order items and the final dispatch. All these activities should not take more than five minutes since sufficient time should be left for the delivery partners to deliver the goods. Therefore, it becomes necessary to design warehouse operations and an order fulfilment flow for the dark stores to reduce time delays caused by the excessive movement of operators in search of items

The layout of the dark stores plays a critical role in efficient order fulfilment. Placement of the material storage racks, packing station, incoming material staging areas, and incoming and dispatch docks are all interconnected. Micro fulfilment centres or dark stores, although similar in area to that of regular supermarkets differ in their design parameters. Aisles are built longer in supermarkets to induce customers to spend more time in the store, whereas dark store lanes need to be smaller to ensure swift movement of the picker between shelves and the packaging station. Also, excess picker movement can be reduced by grouping high-frequency products near the dispatch counters. The layout needs to be designed based on the business model. Various software and simulation tools can assist in designing the warehouse. This proves that it is one of the most difficult businesses to be involved in and requires extreme calculation speed and communication speed.

Operational Model

Dark Store Model- This is the most widely used model in India, where companies operate dedicated, inventory-heavy warehouses (dark stores) in high-demand urban areas. These micro-warehouses stock fast-moving essentials like groceries, personal care items, and snacks, enabling delivery within 10–30 minutes. The dark-store model is one of the most commonly used business models in quick commerce due to the flexibility of its operation.

It is specifically created to be fast and embraces optimized layouts, automated inventory control, and real-time tracking, allowing to pick orders in three minutes.

The model also has enhanced inventory preciseness owing to just-in-time refilling and hyper-local demand forecasting, which ensures that either a high stock is on hand in fast-moving consumer goods (FMCG) and reduce stockouts.

Where the demand is high e.g., during the festive seasons, the dark stores can be increased or reduced with reference to real-time data, and this will maintain all the time the same level of service. Such a scaling is actively used by such companies as BlinkIt, Zepto, and Swiggy Instamart.

Hybrid approaches blend several approaches to fulfillment, such as dark stores of high-demand products, retail relationships with niche or specialized products, and direct relationships with suppliers, hence providing flexibility in operations and high inventory coverage.

Overall, this means that all possible means of reaching the customer are included in such models. Hybrid models have the following benefits: Improved customer experience: The support of ‘Buy Online’, ‘Pick up In-Store’ (BOPIS) and ‘Same-day delivery’ services provide flexibility and convenience to customers which in turn strengthens their trust and loyalty, more so in Tier 1 and Tier 2 cities.

Better inventory management and access: The inclusion of domestic kirana stores/micro-fulfilment creates hyper-local inventory access, which decreases delivery times and facilitates fulfilment in 10-30 minutes. Sustainability and scalability: Hybrid approaches would inhibit long-term sustainability by reducing the use of gig workers to make all deliveries and achieve a more optimal use of resources. They also coincide with the governmental programs like the Open Network on Digital Commerce (ONDC), hence contributing to the possibility of a comprehensive growth and equal opportunities of small-scale retailers. JioMart Express and BigBasket already use this strategy.

Comparison

The dark store model consists of specialized micro-fulfillment facilities located in high-density metropolitan regions. These dark stores are stocked with high-demand necessities and are designed with minimal pick-and-pack functions, enabling deliveries within 10–30 minutes. One of the model's primary strengths is its ability to facilitate ultra-fast delivery through close proximity to customers. It also provides tight inventory control and real-time stock accuracy using AI-driven demand forecasting while supporting round-the-clock operations and high order velocity. However, the model also presents several challenges. It involves high setup and operational costs due to investments in real estate, staffing, and technology. Space limitations restrict product assortment, thereby affecting scalability. Poor demand forecasting can result in inventory mismanagement, leading to stockouts or overstocking, which in turn causes financial losses and penalties. Furthermore, the model raises sustainability concerns because of increased reliance on single-use packaging, plastic waste, and pollution generated by delivery bikes. It also poses significant gig worker safety risks, as stringent delivery targets may encourage reckless driving and increase the likelihood of accidents.

The hybrid model combines dark stores with local kirana stores or community hubs as fulfillment points, where platforms collaborate with small retailers to utilize their existing inventory and hyperlocal market knowledge. This approach offers several advantages, including lower capital expenditure by reducing the need to build and maintain dedicated dark stores. It provides greater product variety and local relevance through integration with traditional retailers while supporting the sustainable coexistence of kirana shops, thereby minimizing concerns about their displacement. Additionally, the hybrid model can be scaled more effectively in Tier 2 and Tier 3 cities, where establishing dark stores may not be economically viable. Despite these advantages, the model has certain limitations. It offers less control over inventory management and product quality because it depends on third-party partners. This reliance also increases the risk of inconsistencies in order accuracy, stock availability, and delivery timelines. Coordinating multiple retail partners adds to operational complexity and overhead, while the model is comparatively less scalable in high-density urban areas where dedicated dark stores generally deliver superior performance.

Overall, while the dark store model provides exceptional speed and greater operational control, it remains expensive and vulnerable when Average Order Values (AOVs) are low. In contrast, the hybrid model reduces financial and operational risks but does so at the expense of delivery speed and service consistency. Companies such as Zepto and Blinkit have adopted hybrid models to facilitate expansion beyond Tier 1

cities, whereas Swiggy Instamart employs both dark store and hybrid models depending on location-specific requirements. Consequently, the long-term success of quick-commerce platforms depends on achieving an optimal balance between cost, speed, and sustainability, with AI-driven demand forecasting and gig worker welfare serving as critical success factors across both fulfillment models.

Suggestions

The 10-minute delivery model is criticised for its extreme emphasis on quick deliveries, thereby creating an ethical problem of choosing time over the safety of human life. Apart from that, it increases instances of over-speeding and rash driving. Unlike conventional e-commerce, quick commerce does not club delivery to multiple nearby addresses over a few days and deliver products accordingly. Most of the deliveries are made to an address almost uniquely to ensure timely delivery of the product. Small volumes and higher resupply frequency that need to be completed in a short duration of 15 minutes present a huge challenge in optimising vehicle load and harmonising delivery addresses.

The most important suggestion for this industry would be about taking care of human lives as the current scenario has problems like a lot of riders have had accidents and lost lives because of this which raises questions this is due to the pressure on the riders to deliver the products which should be improved by providing these riders safety and also provide them with benefits.

Conclusion

Quick-commerce has been a fundamental shift in the landscape of urban retailing by incorporating the aspects of velocity, technological innovation, and precision in logistics so as to meet the growing demand of consumers preferring instant products delivery. Empirical studies suggest that the integration of artificial intelligence, automation, dark-store layout, systems, and coordinated supply-chain systems can positively change the efficiency of operations, reduce lead times and increase customer satisfaction, and also identify the issues, which can be related to sustainability, employee safety, and financial stress. Effective inventory controls, combined supplier networks and last-mile logistics remain significant sources of competitive advantage. However, the sustainability of quick-commerce depends on balancing the modified logic of fast delivery with ethical business ethics, green business, and well-being of delivery drivers. By taking a pragmatic approach that combines technological development with humanistic and pro-sustainability values, the quick-commerce will be able to reach scalable growth and build a lasting consumer confidence.

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STRATEGIC BRAND MANAGEMENT IN GLOBAL MARKETS: BALANCING STANDARDIZATION AND LOCALIZATION

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Abstract

The global brand managers have to strike a balance between ensuring a standardized brand image and the local consumer demands in the globalized economy. This article assesses the way multinational companies (MNCs) become competitive and attain brand equity in the long term through balancing between standardisation and adaptation strategies.

The study assumes a mixed research methodology, which combines conceptual and secondary literature reading and primary exploratory survey study. It is based on global brand positioning, cultural adaptation, consumer perception congruence and globalisation. Some of the critical factors considered are cultural values, language, communication styles and consumption behaviour which influence the brand perception in different regions.

Results indicate that complete standardisation is more effective in brand awareness and efficiency but exposes the firm to the risk of cultural misfit whereas over localisation leads to a dilution of brand identity and uniformity. Global success brands follow a hybrid strategy with standardization of core values, image, and positioning and localization of communication, products and storytelling.

The research article has added to the body of literature in branding through underlining the relevance of balancing global uniformity with local relevance as well as contributing managerially to the firms venturing into foreign markets.

Introduction

The high rate of globalization, interconnection and international trade has totally transformed the competitive environment of the modern day business. Brands do not exist in the local markets, they exist in the culturally diverse, economically heterogeneous, highly dynamic global environment. With the globalization of businesses, the business of working with the brand image in many markets at once becomes a strategic necessity and a managerial challenge. The processes of managing brand in the global markets therefore requires a balancing tool that is delicate, yet can be used to uphold a consistent identity on a global level and the need to incorporate local cultural demands.

Among the invaluable intangible resources of the world corporations is brand equity, which is determined by the consumer perception, the trust, and the emotional connection. The cultural factors, the language, symbolism, and socio-economic contexts however have a great influence on how the consumers interpret brand meaning. The same branding strategy that has been very successful in a given market might fail in a different market due to incompatibility with other cultures. Consequently, one must ask the extent to which brands should be either globalized so that they can achieve the economies of scale and consistency, or localized so as to enhance the cultural fit and acceptance by the market.

Two significant strategic options (global standardization and market-specific localization) are available in the existing literature. Even though standardization is more efficient and recognizable the world over, localization is more emotional and localized. Nonetheless, even though literature on these strategies has been widely covered, the question on how these strategies can be put together in a systematic manner to achieve long term global brand equity is still not understood. The dilemma of consistency versus adaptability has been a fundamental research question of international brand management literature.

The proposed study will focus on exploring the strategic brand management in international markets through the combination of the strategy of standardization and localization. The study will attempt to understand the conditions that may result in the effects of the strategies yielding competitive advantage and create a hybrid solution capable of enabling the process of both global consistency and local adaptation. The study seeks to increase the knowledge on how global brands can be sustainable in the current globalized markets that are complex and intricate.

Review of Literature

Theoretical Background

Globalization and global business have been advancing very fast and this has influenced theoretical background of strategic brand management in global markets. The pioneers in globalization theory thought that mass communication and technological advancement are leading to an increasingly homogenous global consumer preference. Levitt (1983) suggested that MNCs would be able to harness the benefits of the global strategic standardization using economies of scale, standardized products and global branding initiatives. Global standardization in this theoretical framework is a beneficial factor that enhances global efficiency and brand recognition.

Nevertheless, the homogenous global consumer preference was challenged later by cultural studies. Hofstede (1980) established that the national cultures differ among themselves on individualism, uncertainty avoidance, and power distance as distinct factors that influence perception of consumers and influences their decision-making behaviour. This observation implies that the marketing tactics that are effective in a given culture may not be effective in other cultures. In a similar manner Trompenaars and Hampden-Turner (1997) stated that effective global management practice must be cultural relativity as one of its advocates, which upheld the argument of strategic adaptation at the local level.

This theoretical debate is complicated by brand equity theory, as well. According to Keller (1993), brand equity built on custom-based is generated by the customer awareness, association, perception of quality, and loyalty. These factors are open to interpretation of the culture and therefore global MNCs ought to

consider the building of brand meaning in various markets. The other argument that was put forward by Aaker (1996) was the core identity and the extended identity of brand identity that is flexible and consistent.

According to this argument, the successful global brands are those that are consistent in their strategies and flexible in their situations. The theoretical advances imply that the strategic brand management is a procedure of balancing between the global strategic standardization and the localized cultural adaptation.

Key Models and Frameworks

Global brand management has had a number of frameworks developed. One of the basic frameworks that takes a hierarchical approach to brand-building between salience to resonance is Customer-Based Brand Equity (CBBE) framework (Keller, 1993). This framework brings out the reality that brand equity is consumer perceptions based, which varies within socio-cultural contexts. The global and local strategies are integrated into a single framework of the so-called approach of globalization. Robertson (1995) coined this term to describe the presence of global integration and local differentiation. In this model, the basic branding components of the mission, positioning and visual identity are centralized, but the communication and products development approaches are decentralized. Another point of interest is the cultural branding theory. Holt (2004) notes that brands are symbols in cultures that are located in the social narratives. According to this theory, winning global brands place themselves in the local culture wars, but still have a wider brand authenticity. This framework restates the necessity of flexibility of world branding setup. Digital globalization has also been incorporated in the brand management frameworks as found in the more recent literature. Digital globalization enhances cross-cultural activity and exposes the brands to immediate consumer feedback, which requires dynamic adaptation strategies (Keller, 2016). Thus, out of centralized brand management, more recent frameworks pay more attention to the centralized digital engagement with the help of the localized one.

Previous Empirical Studies

There are inconsistent findings in empirical studies on the use of standardized versus localized approaches. It has been indicated that the standardization of branding practices may raise the level of brand awareness across the globe and reduce marketing costs (Levitt, 1983). Localized strategies on the other hand can stimulate emotional and cultural acceptance, particularly in market structure, which have localized structures (Hofstede, 1980). Comparative research on multinationals has revealed that the hybrid strategies may translate into an improvement of long term brand equity. Firms with a stable core identity and those that have changed their communication styles and product features have demonstrated high consumer loyalty in different markets (Aaker, 1996; Keller, 1993). Furthermore, the digital adaptation practices including culturally tailored advertisements and localized social media contents were found to lead to better market performances (Keller, 2016). Despite the above, standardization and localization have been viewed in most empirical studies as opposing alternatives.

Identification of Gaps

Nevertheless, although a body of theoretical and empirical work has been presented, there are still some gaps in the research. To begin with, most of the literature is characterized by the perception that global standardization and localization are two opposite strategies and not a continuum. Second, the research has not been conducted which provides a systematic way of evaluating the degree of adaptation required in various cultural contexts. Third, the recent rise of digital globalization has altered the dynamics of consumer-brand relations, yet the currently followed strategies fail to introduce the digital responsiveness

to the evaluation of the global brand strategy (Keller, 2016). The above research gaps indicate that a more updated and coordinated study of the strategic brand management in the international market is required.

Linkage to the Present Study

On the current theoretical and empirical foundation, this study would explore the interaction between standardization and localization at the current global marketplace strategy. Unlike what is commonly believed about these strategies, which suggests that they are mutually exclusive, the conceptualization of the two in this research will be that they are complementary regarding their effect on sustainable brand equity. By combining the available theories and sealing the gaps that have been discovered, this research will aid in shaping a more systematic process of global brand management in a more interconnected world.

Research Objectives

The general objective of the research study is to conduct a study on whether strategic management of brand in international markets need a combined approach that would guarantee sustainable brand equity by standardization and localization. The objectives of the research study are specific and they are:

1. To examine the hypothesis of whether global brand standardization and localization are the alternative strategies in international marketing.
2. To study the impact of cultural variations on consumer perception and brand equity of the various markets.
3. To establish the level at which the multinational corporations are consistent in the global and responsive at the local level.
4. To establish whether a hybrid strategy is more sustainable tool to use in global brand management as compared to a standardized or a localized strategy.

The research goals of this study are associated with the basic research elements like the cultural influence, strategic fit, brand equity formation, and global market adjustment that involve the understanding of current global brand management practices.

Research Methodology

This study has a research design of mixed-method research design that integrates both conceptual qualitative research and practical exploratory quantitative research to gain an insight into management of brands in global markets. This paper is about the business aspect of finding the best balance between standardizing and localizing a brand, and how this balance may be relevant to the objective of attaining sustainable global brand equity. The authors merge a theoretical framework with empirically verified perceptions, as per theory.

In the theoretical framework, the secondary research is significant. Several sources have been objective of searching such as peer reviewed journals, conventional marketing literature, and theories of globalization and cultural dimensions, and customer-based brand equity frameworks (Levitt 1983). These theories offer the understanding of how international firms can attain a uniform global brand image as well as at the same time adjust themselves to cultural variations within various markets. The paper also looks at the industry

publications and up-to-date branding studies to get to know the current trends. The research is at the intersection of digital globalization. (Hofstede 1980, Aaker 1996).

Along with reviewing the existing literature, we also conducted a new study by way of a structured questionnaire in which 30 participants, undergrads and young professionals who are well-informed international brands, participated in the study. The respondents answered the questions on a five-point Likert scale with Strongly Disagree on the one end and Strongly Agree on the other end as regards the perceptions towards global brand consistency, cultural adaptation, hybrid branding strategies and digital engagement. The present study was an exploratory study which was primary research that intended to establish the hypothesis that were developed out of the secondary research.

We utilized the descriptive statistics to analyse the pattern of the responses and determine the patterns that either prove or rule out the hypothesized relationships. To understand the relationship between the puzzle pieces, primary and secondary research findings were synthesized by using a framework analysis, which explored the relationship between global consistency and local responsiveness on brand equity outcome. This combination strategy offers a more in-depth perspective of the interaction between standardized core brand resources and local responses to sustain long-term brand equity in the international markets.

Development of Hypotheses

Two approaches to global brand management have been identified in literature, which are standardization and localization. On the one hand, the globalization paradigm implies the standardization of a brand in the markets (Levitt, 1983); on the other hand, the cultural dimensions theory implies that branding needs to be adapted to the local circumstances (Hofstede, 1980). The brand equity theory is also an indication that brand value lies in consumer perceptions about the brands (Keller, 1993). According to these theories the next hypotheses are offered.

The general effect of standardization is that it enhances brand recognition, as well as a consistent global brand identity due to a consistent visual identity and positioning (Keller, 1993). Thus:

H1: Brand standardization has a positive influence on world brand recognition and world brand perceived consistency. Localization, however, involves brand communication being adjusted to the local culture to get closer to the local consumers and allow more acceptance (Hofstede, 1980). Thus:

H2: Brand localization positively influences the consumer emotional engagement and the acceptance of the local market. It is proposed that an integrated approach can be used to surpass the constraints of choosing one strategy over the other (Aaker, 1996). Thus:

H3: The combination of the standardized and localized approach of hybrid branding strategy positively influences global brand equity. Digital globalization can offer a solution to create a better balance between these two approaches. Thus:

H4: Digital engagement capability moderately positively influences a relationship between a hybrid branding strategy and global brand equity. Such hypotheses offer a global approach to understanding how brands could balance global consistency and local resonance on the global markets.

Data Analysis and Interpretation

Primary Data Analysis

The initial survey was undertaken among 30 respondents who are undergraduate school students and young professional people and who were conversant with multinational brands. The respondents were chosen in order to have a fair degree of sensitivity towards international branding practices. The questionnaire had an objective to study the attitude towards brand standardisation, localisation strategies, hybrid branding strategies, and the importance of digital interaction in global brand management.

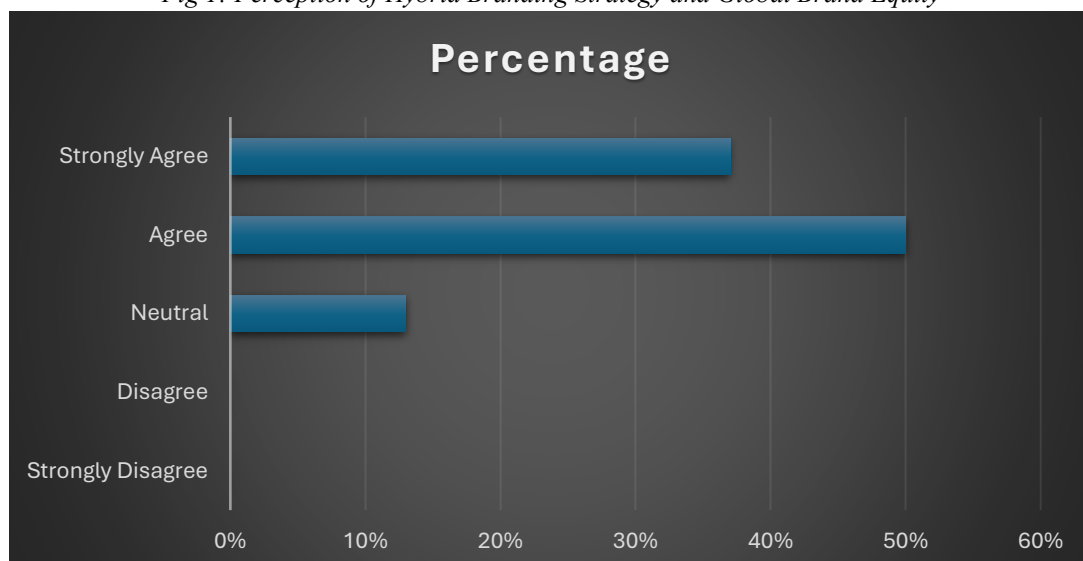
The results show that there is great justification of keeping core brand expansion across markets. Approximately, 83 percent of the respondents revealed that maintaining the key brand attributes in the new country boosts brand awareness and consumer confidence. It is worth noting that there were no significant disagreements with the participants with this statement meaning that it is evident that standardisation plays a positive role in global brand identity. With these results, H1 that postulates that brand standardisation enhances brand recognition and consistency across the globe is empirically supported.

Meanwhile, eight out of ten participants were in agreement with the statement that adjusting the advertising message and promotion tactics according to the local culture enhances consumer communication and emotional involvement. No strong disagreement and minimal neutral responses would emphasize the perceived significance of cultural adaptation, which allows to support H2 that localisation improves consumer alignment and engagement.

Notably, 87-percent of the respondents held that a balanced mix of standardisation and localisation results in greater brand value, which supports H3 that hybrid strategies result in sustainable global brand equity.

Also, 82% of them concurred that digital platforms help a brand to achieve global consistency and convey localised messages, which prove H4 about the moderating nature of digital capability. The general outcome shows that global brands can be successful most when there is a balance between standardisation and localisation as opposed to the choice of either.

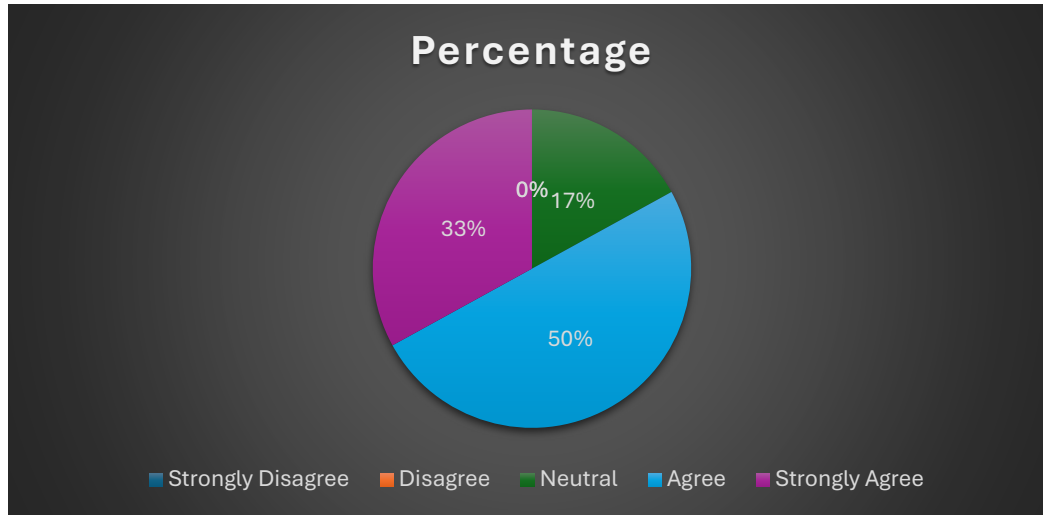
Fig 1: Perception of Hybrid Branding Strategy and Global Brand Equity



Source : Self

As shown in Figure 1, 87% of respondents agreed or strongly agreed that combining standardization and localization enhances brand equity. This strongly supports H3 and validates the hybrid branding framework proposed in the study.

Fig 2: Perception of Brand Standardization and Global Recognition



Source: Self

Fig 2. indicates that 83% of respondents perceive standardized brand elements as strengthening global recognition and trust. This provides empirical support for H1 and highlights the importance of identity consistency in multinational branding.

Secondary Data Analysis

The review of the academic literature and industry reports used as the secondary ones proves the presence of the consistent themes that help to support the primary findings. The contributions of the theory focus on the fact that standardization increases the efficiency of operations, economies of scale, and international brand consistency (Levitt, 1983). The theory of customer-based brand equity also suggests that the basis of brand identity enhances the recognition and cognition associations (Keller, 1993).

On the other hand, the cultural dimensions theory underscores that, contextual adaptation contributes towards influencing consumer perception (Hofstede, 1980). Studies indicate that the symbolic meaning and expectations of consumers between different market sets differ widely, which supports the need to ensure that communication strategies are localized.

The most recent industry reports by McKinsey (2023) and Deloitte (2022), indicate that major multinational corporations are simultaneously resorting to more and more localized digital campaigns, but maintaining a consistent global positioning. The reports refer to digital acceleration and culturally adaptive marketing as the important drivers of competitive advantage in international markets.

The secondary analysis confirms that contemporary global brand management increasingly reflects a hybrid strategic model rather than strict adherence to a single approach.

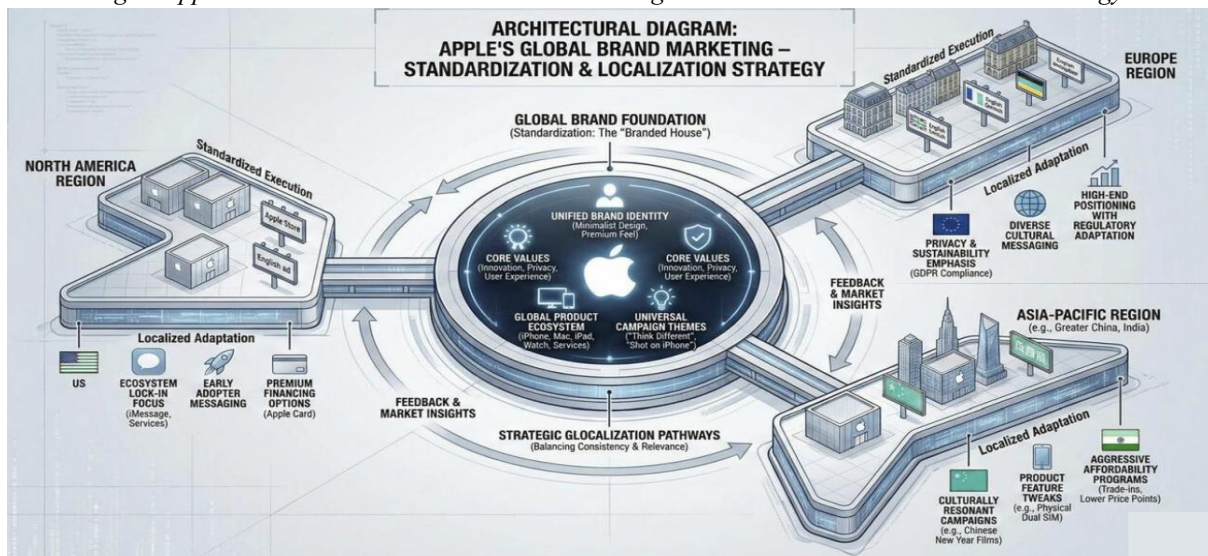
Table 1: Perception of Brand Standardization and Global Recognition

Brand	Core Standardized Brand Elements	Market-Specific Adaptations	Strategic Insight
Coca-Cola	Logo, red color, global brand positioning	Festive campaigns (Diwali in India, Ramadan in Middle East)	Preserves global brand coherence while enabling culturally resonant communication.
McDonald's	Golden arches, service format, brand promise	Menu adaptation (McAloo Tikki in India, Teriyaki Burger in Japan)	Integrates operational standardization with contextual market responsiveness.
Nike	Swoosh logo, global mission	Local athlete endorsements and region-specific campaigns	Preserves brand essence while enhancing relatability
Apple	Product design, minimalist branding	Region-specific pricing strategies and festive promotions	Maintains premium global positioning with market sensitivity

Source: Self

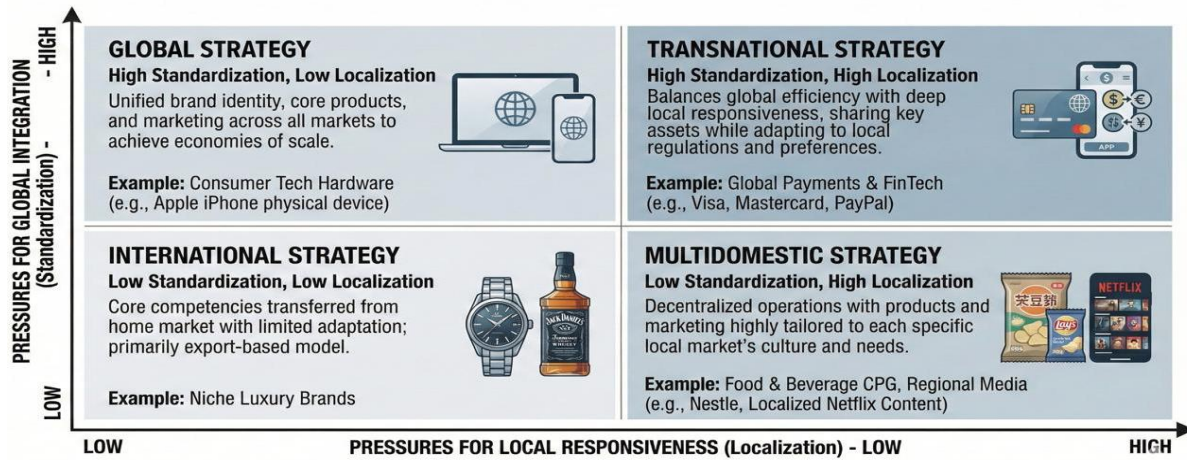
Table 1. demonstrates how multinational corporations implement hybrid branding strategies by standardizing core identity elements while adapting to local market contexts. The examples reinforce the study's argument that strategic balance enhances both global consistency and local engagement.

Fig 3: Apple's Global Brand Architecture Illustrating Standardization and Localization Strategy.



Source : AI compiled

Figure 4: The Integration-Responsiveness Grid for Global Brand Management Strategy

FIGURE 1: THE INTEGRATION-RESPONSIVENESS (I-R) GRID FOR GLOBAL BRAND MANAGEMENT STRATEGY (Adapted from Bartlett & Ghoshal)

Source: AI Compiled

5.3 Integrated Interpretation and Conceptual Linkage

By incorporating the primary with the secondary findings, it will be appropriate to develop a hybrid global brand management structure. Standardization and localization have been established to be strategic complementary dimensions and not antagonistic strategies.

The theoretical relationship can be narrowed in to: Global Brand Standardization + Localization of Culture → Sustainable Consumer perception Alignment to Global Brand Equity. Standardization facilitates consistency of identity, recognition of identity and uniformity in strategy across the markets as the fundamental elements of the enterprise are kept stable such as mission, positioning and visual identity. Localization enhances the cultural relevance through altering the communication, messages and promotion strategies to the local consumer expectation.

The resulting mediating output of this integration is that of consumer perception alignment. Trust and emotional appeal are also improved at the same time by consistency and cultural responsiveness of brands. This has been more enhanced by the interaction that is done digitally, which enables real time adaptation despite losing control of the brand. The model shows that sustainable global brand equity is achieved by balancing as opposed to dominating either approach.

Suggestions

The multinational firms should therefore strive to have sustainable and mixed branding strategy which is focused on the distinction between the standardized and the localized and adapting factors. Its mission, brand, visual image and global positioning should be consistent such that they can be in a position to realize long run consistency and recognition at all markets.

On the other hand, the company should invest in culturally informed market research to change the language of communication, advertising narratives and products being sold to suit the local preferences. The firm should also train its regional promotional staff on the aspects of cultural intelligence such that they become more sensitive to the context, yet in a manner that does not undermine the global brand bosses.

The company should also include digital analytics and the real-time consumer feedback in order to perform continuous assessments of responses in the market. This is where the global-local decision-making system is needed to avoid fragmentation of the brands and have ability to be relevant in the various markets.

It is therefore possible that companies can create global brand equity, enhance consumer-specificity, and create sustainable competitive advantage through the well-balanced, data-driven method in our highly connected, globalized world.

Conclusion

The global brand management of the international markets should take a balanced approach between global and local relevancy. It has been established through the discussion that pure standardization and complete localization cannot be sustainable in the long-term as far as multinational companies are concerned. Whereas standardization will enhance brand awareness, operational effectiveness and uniformity of identity, localization will enhance culture fit, emotional attachment and market assimilation.

The study indicates that successful global brands implement the hybrid strategy as a combination of the two strategies. Firms can achieve strategic coherence through standardization of the core aspects of the brand such as values, positioning, the visual identity, and changing the portrayals of communication and products to local contexts without losing its cultural responsiveness. Besides, the digital globalization has heightened the need of a dynamic interaction between the global governance and the local market intelligence.

Lastly, sustainable global brand equity should be an outcome of a strategically controlled integration but not imitation. As the global markets continue evolving, the organizations who are able to strike the balance between the consistency and adaptation will have a higher opportunity to achieve a competitive edge and brand sustainability.

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THE FREE-WILL VS DETERMINISM DEBATE, AND ITS CORRELATION WITH LEADERSHIP PERFORMANCE

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Abstract

The Free-will vs Determinism mindsets are a widely known debate, allowing researchers to assess different psychological and sociological results through varying perspectives to better understand how a person manages their own behaviour. This includes everything from social behaviour (how a person acts in relationships, friendships, and family relations) to job performance.

This research aims to understand how belief in a certain mindset correlates with an essential capacity of job performance - leadership capabilities. Data has been collected using surveys for quantitative data and limited interviews for qualitative data. The relevant analysis has been conducted for quantitative data, and interview responses have been used to draw the final conclusions of this study.

Introduction

Leadership is an essential trait that plays an important role in people's daily life, from school assignment groups, to managing teams at the workplace. The success of a leader and how well they conduct their responsibilities is often predicted by their personal traits, such as self-motivation, confidence, and emotional stability, among others (Wale, n.d.). The impact of a leader's mindset is also crucial in understanding how well they would function, as a mindset could vastly impact the behaviour of a leader (Kouzes & Posner, 2019).

The well-known debate between Free-will and Determinism is one of belief mindsets. To believe one's actions are of one's choice is to believe in Free-will, whereas believing that all actions are pre-determined by external factors and previous events means believing in Determinism. These mindsets are known control how a person views the consequences to their actions, and how much importance they place on decisions and choices they make, or rather the choices they believe they make.

To assess how a belief mindset impacts leadership success, this research has been performed to draw conclusions. The study utilises surveys and in-depth interviews to prove or disprove the hypotheses.

Review of Literature

To analyse the correlation, we carried out a Review of Literature. This helped evaluate previously conducted research surrounding the topic, providing insight into secondary data essential for developing

the hypothesis and the structure of this research. First, we assessed Free-will (FW) and Determinism (DT), focusing on the characteristics of each mindset and debate (Sappington, 1990) (List, 2013) (Rakos, et al., 2025). Furthermore, we identified the established relationships between leadership and belief mindset (Frost, 2006) (Stillman, et al., 2010).

(Sappington, 1990) One study examined the different branches that come under FW and DT, reconciling the various terms to define them collectively and individually. The researcher determines **Hard Determinists**, **Soft Determinists**, **Libertarians** as the varying branches under this debate. He defines Hard DT as “completely determined by various factors outside the person” and FW is “meaningless”. Soft DT is defined as “determined”, but “not incompatible with free will”, essentially stating that choices may be determined but the consequences are to be borne by the decider. Libertarianism states that “human choices are not determined by external factors; the cause of a choice is held to be the person who makes it”. For the purposes of our research, we have adapted the Hard DT form for DT belief mindset, and Libertarianism for FW belief mindset.

(Rakos, et al., 2025) To categorise the types of people within the debate further, a study was conducted in 2025 as a summary. They recognised 4 varieties, namely **Libertarians**, **Hard Determinists**, **Compatibilists**, and **Revisionists**. Compatibilists believe “more than one response option genuinely exists in a situation, even if causal determinism is true”, whereas Revisionists claim that FW is a social skill, one that is built from scientific principles rather than a fact or truth. To implement unbiased perspectives in our data interpretation, this research considers both the Compatibilism and Revisionism views.

(List, 2013) Another study utilised modal statements to argue that FW and DT are compatible, stating that “the special-science perspective is the only perspective from which we are likely to be able to defend free will”. Essentially, while assuming DT is true and real, the researcher proves that FW must also co-exist in order to make sense. This is depicted using a framework and semantic analysis of the modal statements presented in the paper. The findings of this researcher’s study were analysed to support our considerations for the current paper, which is a Compatibilist view in interpretations.

(Frost, 2006) To further understand the implications of FW and DT in leadership performance, we assessed a 2006 study which connected **Agency** (a part of FW) to leadership. The study concluded that Agency serves as a “bridge between leadership and learning”, implying that FW is crucial to develop leadership traits and skills in an individual through learning. The biggest takeaway from this research were the concepts of ‘emergent interactive agency’ (Bandura, 1989), and how an older study declared that internal influences on behaviour are just as deterministic as external influences.

(Stillman, et al., 2010) Additionally, a study using personality inventories and measure tests relating to **Job Performance** concluded that an FW belief mindset and Job Performance are positively correlated (individuals with FW belief were more likely to perform well at work). They recognised that self-reports and survey methods could have impacted the results, therefore prompting an interview-based approach in this research. Lastly, we applied this predictability in discussing the results of our study in terms of leadership traits and successes.

Research Objectives

1. To assess the impact of a free-will mindset on leadership performance.

2. To assess the impact of a determinism mindset on leadership performance.
3. To compare how these mindsets impact leadership performance holistically

Research Methodology

Quantitative data for this research has been collected using a Google Forms survey. The survey aims to collect data from everyone above the age of 18 of all genders and occupations. The sampling constraint is individuals that have experienced a leadership position in their life in a formal setting or otherwise. The survey contains 14 questions. Out of these, 2 questions are identifiers (initials and age). Section 1 contains 7 questions pertaining to leadership performance. These questions have been adapted from the **Leadership Skills Inventory** developed by the Personnel Decisions Research Institutes (Horgen, et al., 2006), modified to match a more general cohort of leaders across various fields. Section 2 contains 5 questions pertaining to belief mindset, with 2 optional qualitative questions.

Qualitative data for this research has been collected using semi-structured interviews. The participants for the interviews include leaders in the fields of education, business, and college societies/clubs. All participants are above the age of 18 and have moderate to extensive experience with leadership. Interviews have been maintained as semi-structured to ensure the answers of interviewees were assessed in-depth, especially leadership performance. Specifically, this evaluated how an interviewee viewed themselves as a leader and how this matched with their actual performance.

Data analysis for survey responses has been conducted using correlation analysis (correlation coefficient) and standard deviation analysis (range and SD). Interview responses have been assessed objectively and reviewed by an unbiased moderator to ensure the analysis is unbiased and as close to the original answers and their intent as possible.

Research Limitations

Certain external influences in this research are likely to impact the results and conclusions drawn from our collected primary data.

(Srinivasan, et al., 2015) A study in 2015 assessed how **Indian Culture** could impact FW belief, concluding that individuals who prioritised the concept of caste in culture were likely to have DT beliefs. It was found that, in adulthood, this would also develop into beliefs about personal attributes. These results suggest that, since the history of Indian culture is deeply intertwined with caste and prioritisation of the caste system (Deshpande, 2010), it is likely that DT would be more common amongst the participants than if culture was not an external factor.

(Aksakal & Avci, 2024) **Age** has also been determined as an influential factor in FW belief. This study focused on the concept of **Fatalism** (a belief that events are predetermined and *not influenced by one's own choices*), concluding that Generation Z (individuals born from 1998 – 2006, for the purposes of that study) had a less rigid view of fatalism. This could infer that younger people have a more FW mindset than their older generations. The data for our research could contain age biases, should the survey responses be leaning towards a specific age range. Age influence has been eliminated to an extent in the interviews, with 3 participants from different age groups.

(van de Mortel, 2008) Innumerable research has been conducted on the impact of **Self-report** activities in research in terms of demand characteristic and social desirability demonstration. This research, for example, concludes that self-report influences about 50% of research using self-report methodology. The recommendations include the detection and control of SD bias in such research to determine the accuracy of results – this recommendation has been implemented in this research.

Other limitations of the research include a small sample size, limited secondary data sources for the topic, interview biases such as demand characteristics developing through the interview, and an inability to set up a proper experiment which could reduce external influences. These factors have been accounted for and controlled as far as possible, but could not be fully eliminated.

Defining Variables

Free-will (FW) – the belief that people have control over their actions and are therefore directly responsible for the consequences they face. (Levy, 2024)

Determinism (DT) – the belief that every event is completely caused by prior events and constrained by pre-determined forces. (Levy, 2024)

In this study, **Leadership Performance** is defined as having leadership traits (Horgen, et al., 2006) and to have positive results from leadership (success).

In this study, **Belief Mindset** is used as a holistic term to describe any side within the Free-will vs Determinism debate.

Hypotheses

1. Survey respondents with high leadership trait scores will have high scores in Free-will belief mindset
2. Interview respondents with high self-scored leadership success will have high belief in Free-will
3. There will be either a positive or a negative correlation between belief mindset and leadership performance.

Data Analysis

Survey Data

A total of 60 responses were collected from students, working professionals, and educators in India. To analyse the data, excel was used to determine the correlations of the likelihood of opting “Own Choice” for decision questions versus “Pre-Determined”, mapped against levels of Leadership Performance.

Here, columns 2 to 6 represent the columns for the 5 quantitative questions asked relating to Leadership Performance. Columns 7 and 8 represent the 2 quantitative questions asked pertaining to FW/DT decisions. While the scoring for Leadership Performance was quantitative (asked on a scale of 1-5 for all factors), Belief mindset data was replaced with quantitative representations (1 = “Own Choice”, 2 = “Pre-Determined”) for the following correlation table:

Table 1 – Correlation values

	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Column 2	1						
Column 3	0.3863367	1					
Column 4	0.4024622	0.0462217	1				
Column 5	0.5218482	0.0026149	0.7910544	1			
Column 6	0.4376804	0.2267370	0.6552774	0.5751922	1		
Column 7	-0.1463104	-0.4400880	-0.1100297	-0.0186739	-0.3384823	1	
Column 8	-0.2310364	-0.1174679	-0.5320976	-0.4472301	-0.3855204	0.0986928	1

Source: Self

The strongest observed relationship is between column 4 & 8 = -0.53 , suggesting an increase in the leadership score (for confidence and self-esteem traits) relates strongly to a decrease in the big decision score (leaning towards “Own Choice”)

Moderate relationships were seen between column 3 & 7 = -0.44 , suggesting higher the agreeability and empathy scores of an individual, the more they leaned towards “Own Choice in smaller decisions). Similarly, column 5 & 8 had a moderately negative relationship, and column 6 related negatively with both columns 7 and 8. These negative relationships essentially infer higher FW belief when leadership scores are higher.

Column 2 (achievement and hard-work scores) was seen to be most weakly related to FW beliefs, and it is noticed that column 5 (natural leadership and self-appointment scores) are nearly unrelated to the belief mindset in small decisions (-0.02 correlation).

Interview Data

Participant 1 [GS] is M55, a business owner who has 25 years of leadership experience. GS recognised change in his field over the years, working well with different cultures, and has an encouraging outlook to leadership. The participant has also been able to identify personal areas of weakness, suggesting reportedly good leadership performance. Overall, the participant leans on a FW belief mindset, explaining that most of his decisions in life were unexpected and undetermined by previous decisions. He implied a slight DT belief, attributing it to his upbringing and cultural beliefs. When asked, he claimed if he was from a different culture, he wouldn’t have the same DT beliefs.

Participant 2 [AC] is F20, has leadership experience with a school house for 2 years. She reports that her leadership helped the house go beyond its limits and win on multiple occasions throughout her leadership years. Her leadership style is open and accepting, encouraging adjustment and maintaining behaviour. AC was also able to accept personal shortcomings, suggesting strong leadership abilities. A complete belief on FW was found in the participant, as she defined all of her decisions to be solely her own and not even merely influenced by external factors in her life. Her upbringing was heavily focused on morals, and she credits that for her main decisions motives in life.

Participant 3 [MM] is F20, with leadership experience at a college society/club for 1 year. With limited experience in leadership positions, MM was able to establish a strong culture for learning and hard work in her team, recognising her learnings within the past year including patience and improving on her assertiveness. She believes an FW mindset is essential to life, stating she considers DT to be discouraging. Every small decision holds importance to the participant and therefore a strong belief in FW is observed through her answers. However, she does also believe external forces play a big role in the opportunities presented to her, therefore a slight DT view when it comes to bigger decisions and the preface to her choices in the workplace and in life.

Interpretations

The qualitative data analysed from surveys indicates a notable correlation between Leadership Performance and FW belief. While this cannot positively suggest a causation (that a belief in FW *leads* to better Leadership Performance), the data can determine a definite correlation, supporting **Hypothesis 1**.

However, it is important to note this data could be influenced by the research limitations listed above. While Indian culture may not have had a big influence (due to the contradiction in the general assumption of the influence of culture in this context), age may have played a role in the results. Since almost 67% of the respondents were between the age of 18 – 22 (Self, 2026), it is likely the results are leaning towards FW because of age. However, since p value is insignificant, we can assume the results are not highly influenced by external factors. This supports **Hypothesis 3**.

Interview responses have strongly supported **Hypothesis 2**. All 3 participants have been successful leaders in their respective fields, as demonstrated by their self-reports of leadership styles, traits, and successes. Regardless of age, all 3 leaders were of the FW belief, maintaining that decisions taken by them in their lives are fully (or at the least largely) their own choice, and that determinism serves as an area of discouragement and a way to ignore morals, therefore establishing a strong connection between FW belief and Leadership Performance in all 3 interviews.

Conclusion

Our research concludes that Free-Will belief is positively correlated with Leadership Performance – where an individual believes in Free-Will, they are more likely than not to perform well in leadership positions. This conclusion is supported by the interpretations of primary and secondary data collection, using qualitative analysis and correlation analysis.

Recommendations

The focus for future studies can revolve around determining causation – that having a FW mindset **directly** impacts Leadership Performance. This conclusion can be developed using a controlled experiment, in-depth observational and field research, and taking up larger samples for both surveys and interviews.

The results of the current research can be used to understand a facet of the numerous factors that correlate with Leadership Performance. Some actions that could be supporting using this research include predicting leadership successes, understanding styles through underlying belief mechanisms, and evaluating potential leaders through their mindsets.

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THE INFLUENCE OF AESTHETIC DESIGN ON BRAND TRUST AND PERCEIVED QUALITY: A STUDY ON CONSUMER BEHAVIOUR IN CAFÉS

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Abstract

The aim of this study is to investigate the impact of aesthetic design and presentation in service industries such as cafés, on consumer perception and behavior. The present-day expectations of the economy exclude cafés from being viewed solely as a stop for food and beverage but classifies them as spaces where ambience, visual appeal and aesthetic elements play the key role to contribute to the customer perceptions. This report aims to study in further detail how factors such as interiors, lighting, layout and overall presentation and atmosphere shape the consumer's evaluation of service quality and brand trust. It intends to further understand the wants of the current consumers and identify the main factors behind the ever-changing consumer expectations. Using primary data collected through consumer surveys of 100 individuals, this paper aims to evaluate and analyse the relation between the psychological responses of the consumers to aesthetic elements such as décor, layout, plating and presentation of cafes. Along with primary survey, secondary research has been conducted to explore the variance in consumer responses across demographic segments. The findings indicate that cafés with well-curated aesthetics command greater customer loyalty in addition to strengthening brand trust. Aesthetics also have an influence on consumer loyalty and mouth publicity, especially through social media. Overall, this study intends to emphasize the importance of aesthetic investments in the café industry as a strategic move to ensure the survival and profitability of the business. Aesthetics cannot merely be classified as decorations but are now an essential component for consumer perception and brand positioning.

Introduction

The café industry, in recent years, has evolved from being a purely functional food and beverage establishment to an experience that gains value from aesthetic décors and spatial layout that reflects identity, lifestyle and social culture. Modern customers seek beyond quality products, they seek environments that evoke emotions, comfort and visual satisfaction. As a result, aesthetics of a café play a key role in driving customer satisfaction, perception and brand trust. Aesthetic design influences the perception of customers before they experience the products, contributing to the first impressions, perceived quality and credibility of the establishment. The visual appeal of an establishment links the consumer perception to an array of factors including hygiene, service or product quality and uniqueness.

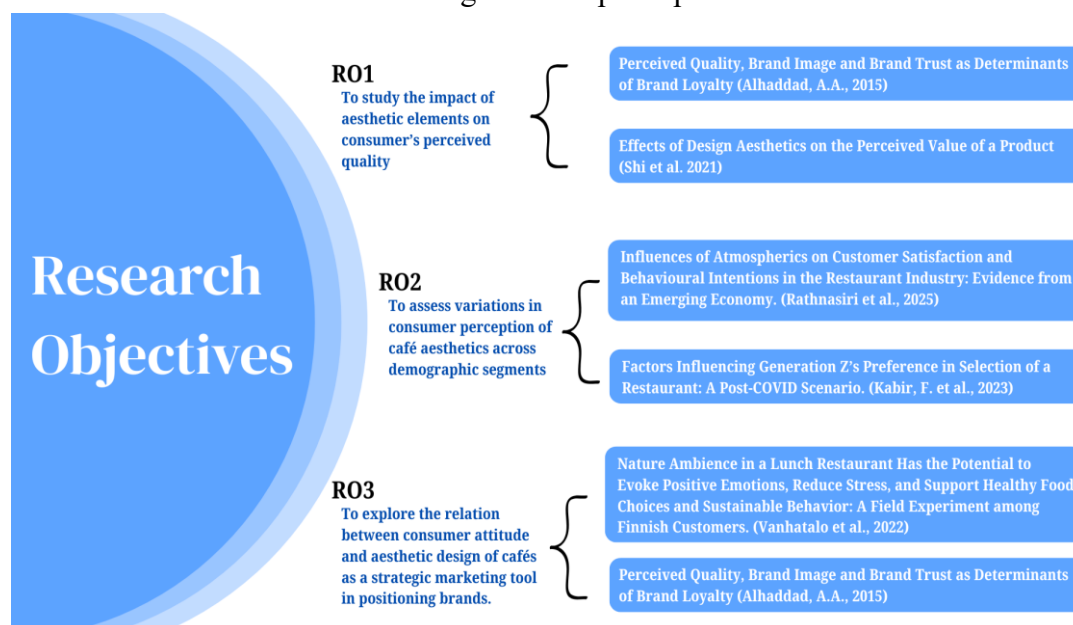
Overall, good aesthetics ensure brand trust essential for customer loyalty. It reduces the perceived risks boosting brand reliability and consistency in the consumer's eye. If utilized appropriately, aesthetics of a café can be a strategic tool in ensuring customer satisfaction as it enables the businesses to shape consumer expectations in addition to attracting customers, as a compelling visual representation and environment can significantly influence perceptions even before the core service is delivered.

Research Objectives

- To study the impact of aesthetic elements on consumer's perceived quality
- To assess variations in consumer perception of café aesthetics across demographic segments
- To explore the relation between consumer attitude and aesthetic design of cafés as a strategic marketing tool in positioning brands.

Review of Literature

Fig 1. Concept Map



Source: Self

Research on consumer perception, brand trust, aesthetics, and dining preferences shows that environmental and brand-related cues significantly shape consumers' evaluations and behavioural intentions. Alhaddad (2015) found that brand loyalty is mainly driven by perceived quality. It affects both brand image and brand trust. Higher the perceived quality, stronger is the brand image and trust. Higher perceived quality results in enhanced loyalty, highlighting the role of quality perceptions in developing consumer relationships for long-term.

The study by *Shi et al. (2021)* shows that design aesthetics affects the way a product is evaluated and purchase intentions of the consumers. Good aesthetic designs cause positive emotions and engagement in the consumers, showcasing that visual and environmental elements act as subconscious quality signals. The perceived beauty of the product leads to a higher perceived value. In conclusion, design and aesthetics influence consumers' cognitive and emotional responses – in turn shaping the perceived value of an element.

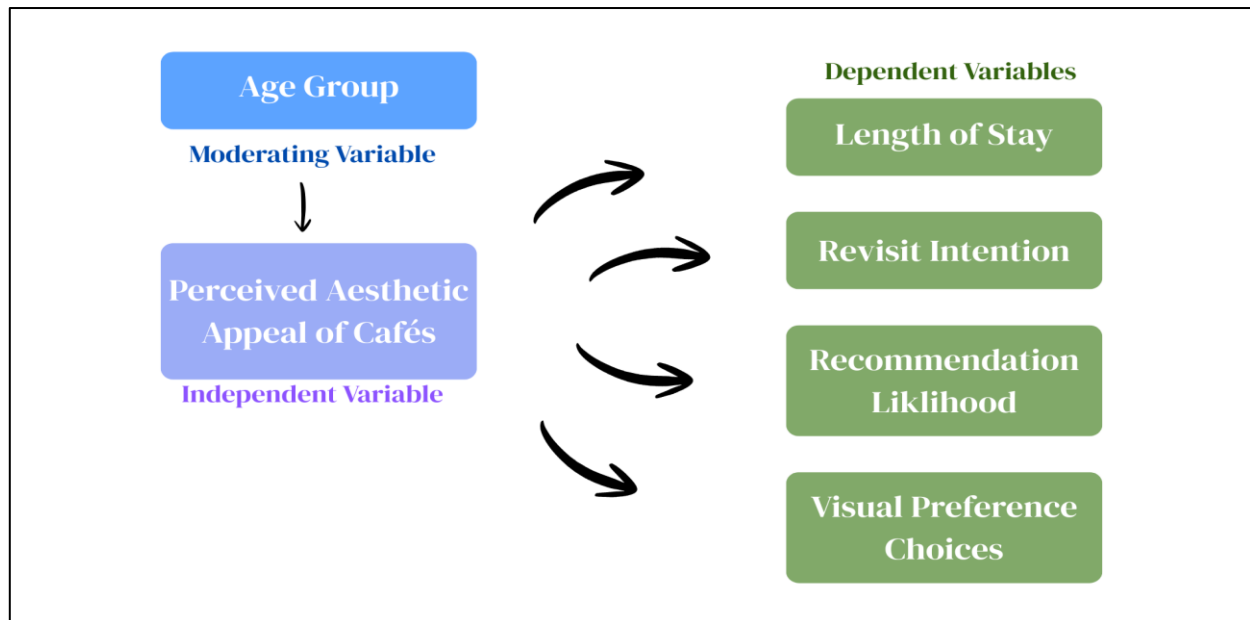
Vanhatalo *et al.*, 2022 demonstrated that environmental design influences the customer attitude and choice behaviour in a positive manner. The study observed the effect of nature-based ambience in a restaurant setting. They studied how the environmental ambience of the establishment reduced stress of the consumers, and encouraged healthier food choices, concluding that design of an establishment up to a certain extent, can influence choice behaviour of consumers.

Meanwhile, Rathnasiri *et al.*, 2025, in an emerging economy, studied the possibility of atmospheric elements—such as lighting, décor, music, and spatial arrangement—positively influencing customer satisfaction. They observed that the behavioural intentions of consumers such as, revisit likelihood and recommendation behaviour are subconsciously driven by design elements. This study concluded that visual and environmental design elements are crucial for shaping consumer experience and satisfaction.

Consumer preferences can also be influenced by generational contexts. Kabir, F. *et al.*, 2023 examined the process of Generation Z's restaurant selection in a post-COVID scenario. They found that the aesthetics, brand image, hygiene, and ambience of an establishment are the key factors of choice due to increased awareness post COVID. This highlights that one of the reasons why younger consumers value aesthetic appearance, along with the functional attributes is that, when they evaluate dining options, the increased hygiene awareness leads them to select establishments that have a visual impact as it subconsciously links to higher quality and lesser risks.

Conceptual Framework

Fig 2. Conceptual Framework



Source: Self

Research Methodology

This study utilises quantitative research design. Using a survey the influence of café aesthetic design on brand trust, perceived quality, and consumer behaviour is explored. Quantitative methods are chosen as they allow numerical analysis of the relation between aesthetic design and factors such as perceived quality, brand trust, and loyalty.

Additional help of published research papers mentioned in the review of literature has been taken as a mode of secondary data research collection to study the variability of responses across demographic segments. This method was chosen as peer-reviewed articles, papers and studies are a validated source of credible, analysed information that is relevant to the study.

Primary data was collected through a Google Form survey titled “*Effect of Café Aesthetics on Customer Behaviour.*” The questionnaire included questions to gain insights from the respondents about their age group (age group), how often they visit new cafés, influence of aesthetics on their duration of stay and how likely they are to revisit a café with appealing aesthetics (behavioural frequency). Yes/No questions along with 5-point Likert scale were used to gain information about the perception of the importance of aesthetics. Image based questions were also included in the questionnaire to understand how visual comparison affects the consumer preference. Most variables were measured using a 5-point Likert scale, where 1 indicated higher importance or most positive response.

Secondary data was collected from reports, and published research papers to provide a deeper understanding for the study. These sources helped in comparing the findings with real-world insights and existing theories. It also assisted in explaining the differences in the responses across various demographic and consumer segments in relation to one particular image-based question that helped me understand the difference between the thought process and user stories of the current generation in comparison to the older generation.

The convenience sampling method of choosing respondents was used for collecting the data. The participants of the survey were selected based on their availability and the willingness to answer. This method was useful as it is appropriate for consumer behaviour studies that are exploratory in nature to ensure a wide base of customers from all different walks of life. The respondents were majorly grouped according to their respective demographic segments based on age. There are four major demographic age segments: **18 to 22, 22 to 30, 30 to 50 and 50+.**

The survey collected responses from a hundred individuals, all from different walks of lives, using the convenience method of sampling. The sample is heavily youth-dominated, making the study particularly relevant to Gen Z consumer behaviour, since the current consumers belong to the aforementioned generation.

The perceived appeal of café aesthetic is the independent variable as it is the primary factor that is being examined through this study. The aim of this paper is understanding the correlation between customer appeal and good aesthetics such as décor, plating in addition to the overall presentation of the café. Since the aesthetics are considered to drive the consumer appeal, they are the influencing variable.

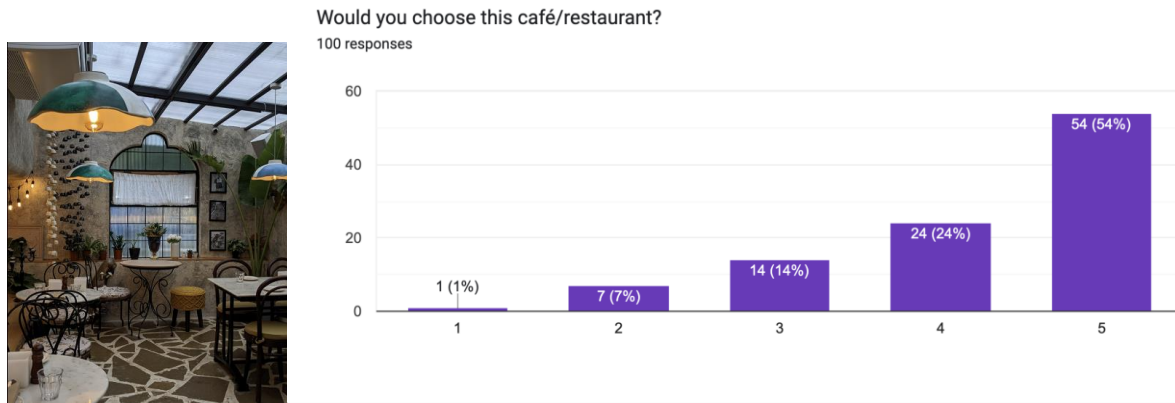
The dependent variables include the customers’ length of stay, intention of revisit, likelihood of recommendation along with visual preference choices to study the effect of visual impression. All of these factors are ideal to analyse the effect of aesthetics on consumer appeal due to these factors.

The age of the respondents is the moderating variable as it is appropriate to understand the overall output of aesthetics on customer impressions. It influences the strength of the relationship between the café aesthetics and consumer behaviour.

Participation was voluntary. Respondents were informed of the confidentiality of their responses along with the anonymity of their identity, before proceeding with the questionnaire.

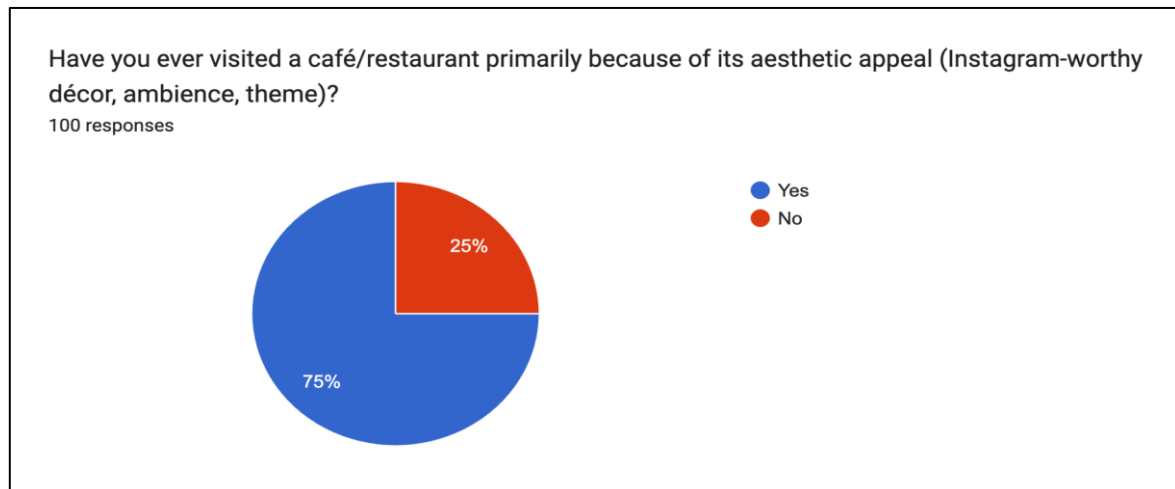
Primary Data Analysis and Interpretation

Fig No. 3: Would you choose this café/restaurant?



(Source: Image <https://elledecor.in/11-best-restaurants-mumbai-check-out/> & Primary Data)

Fig No. 4: Have you ever visited a café/restaurant primarily because of its aesthetic appeal (Instagram-worthy décor, ambience, theme)?



Source: Primary Data

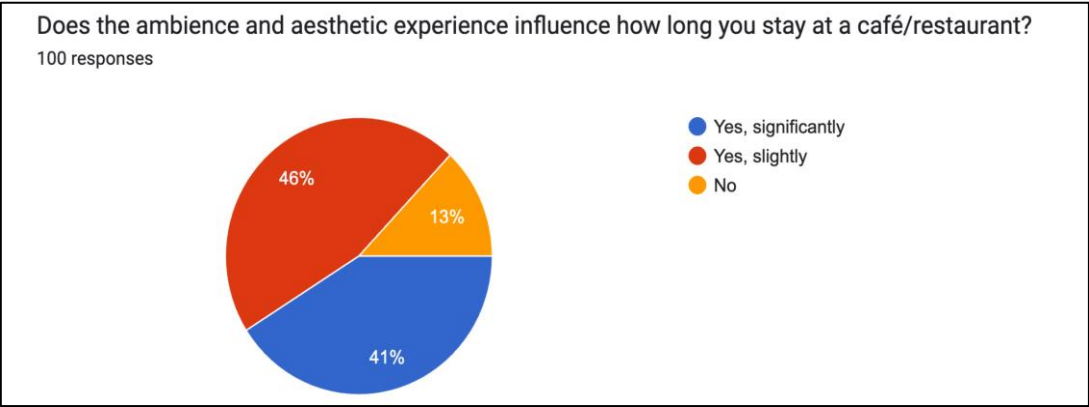
In Fig 3, the findings indicate that a majority of respondents awarded a 5-star rating to the café that they knew nothing of, based solely on its visual appeal. This suggests that visual appeal plays a crucial role in shaping consumer perception of the cafe. It may be a subconscious indicator of quality.

In Fig 4, many responders claimed to choose restaurants primarily for their aesthetic appeal, mainly for social media posting. The strong preference for aesthetically appealing elements indicates a subconscious link between good design and superior standards, along with the perceived social value and ‘brag-worthiness’ related to visually impressive environments.

The aim of the objective “To study the impact of aesthetic elements on consumer’s perceived quality” was

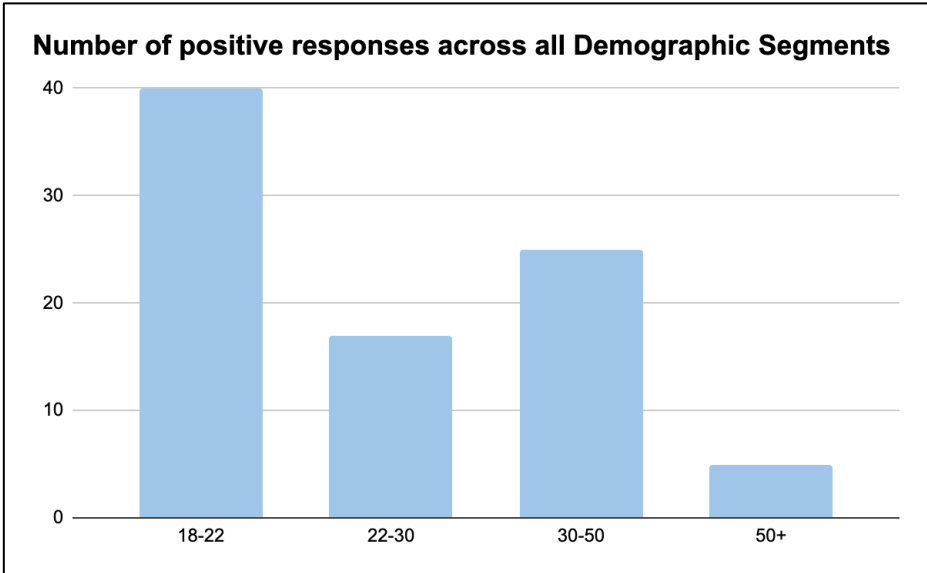
to study the influence of aesthetic elements such as décor, ambience and theme of the café on the consumer perception of quality, standard and “brag-worthiness” related to premium experience.

Fig No. 5: Does the ambience and aesthetic experience influence how long you stay at a café/restaurant?



Source: Primary Data

Fig No. 6: Segregation of responses from Fig no. 5 across all demographic segments



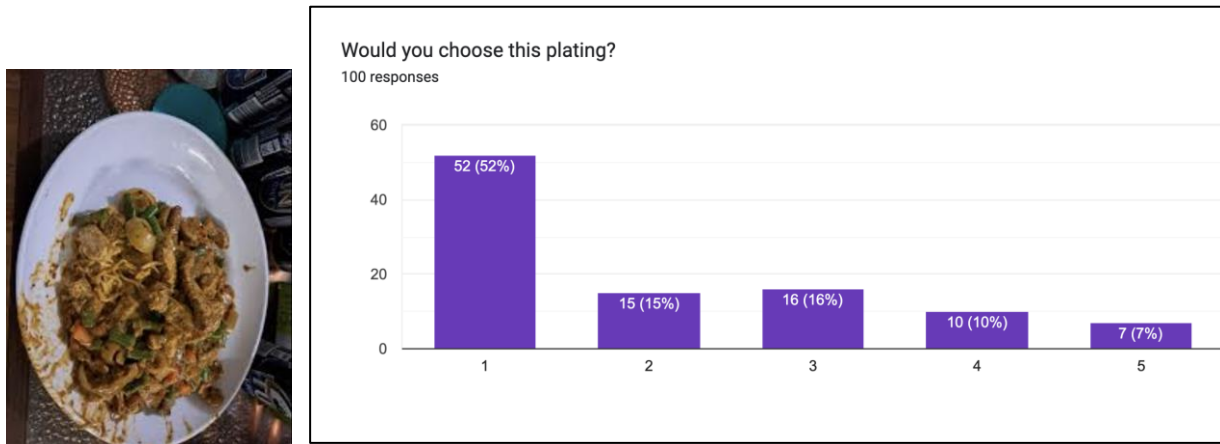
Source: Primary Data

In Fig 5, more than 85% of the responses were positive, indicating the importance of visual appeal in customer engagement. For Fig 6, the positive responses across all demographic segments were manually calculated. The responses showed the highest positive influence in the demographic segment of ages ranging between 18 to 22 (Gen-Z). The responses peak again for the segment ranging between 30-50 (working individuals) highlighting the importance of good aesthetics for both relishment and professional impressions.

The aim of the objective “To assess variations in consumer perception of café aesthetics across demographic segments” to study the influence of aesthetic elements on the amount of time spent in a café/restaurant. A three optioned question was asked, which was converted into a graph to study the highest amount of positive responses (“Yes, significantly” and “Yes, slightly” respectively). A second graph was

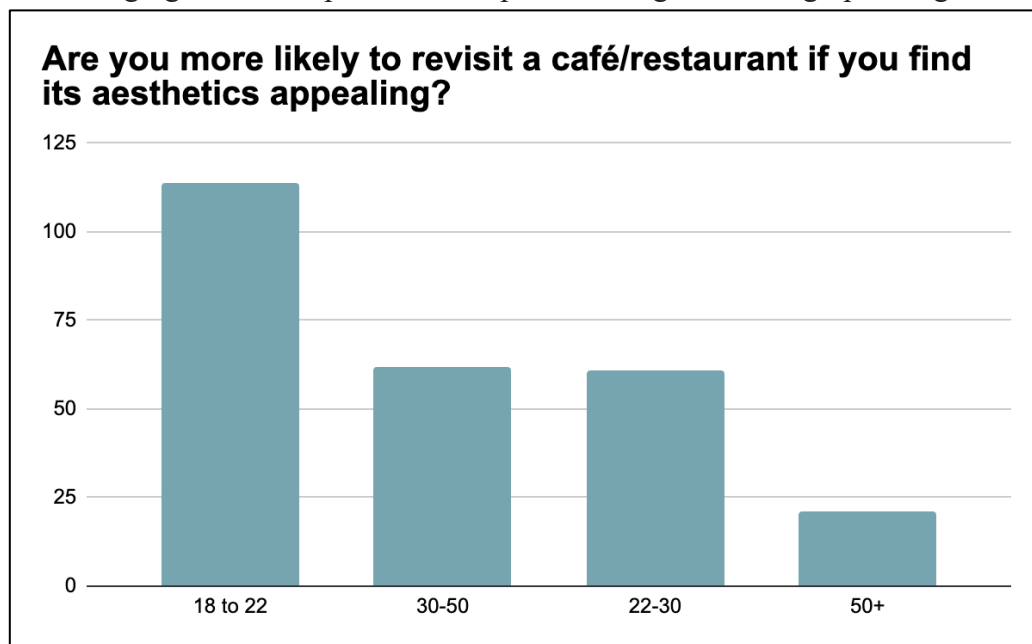
charted to study the exact amount of responses given by each individual and to observe what demographic group they belonged to.

Fig No. 7: Would you choose this plating? (Rating was awarded from 1-5, where 1 is lowest rating)



Source: Primary Data

Fig No. 8: Segregation of responses in Graph 3 across given demographic segments (age)



Source: Primary Data

In Fig 7, the example of bad plating was awarded a total rating of 2.05, with more than 50% of the responders choosing to rate it with 1 star (the least possible rating) only. The responses further solidified the fact that good aesthetic presentation of all elements plays a crucial role in shaping the customers perception.

According to Fig 8, appealing aesthetics ensured the highest aggregate positive responses for revisits to cafés, especially in the age segment of 18-22 (Gen-Z). This emphasizes the fact that good aesthetics, that are Instagram-friendly and appealing to the current generation, are a strategic marketing tool that contribute to brand positioning, ensured through social media and brand loyalty, accomplished by frequent revisits by consumers.

The aim of the objective “To explore the relation between consumer attitude and aesthetic design of cafés as a strategic marketing tool in positioning brands” was to study the viability of investment in good aesthetics of a café as a strategic move for marketing through social media and mouth publicity earned through revisiting, brand-loyal consumers.

Conclusion

The present study examined the influence of café aesthetic design on perceived quality, demographic variation, and consumer attitude within the framework of consumer behaviour. The findings clearly indicate that aesthetic elements such as décor, ambience, lighting, and visual presentation significantly shape consumers’ perception of quality and behavioural intentions.

The results show that consumers, particularly those in the 18–22 age group, have a higher perceived quality for aesthetic visuals. Stronger visual impact influences revisit intentions and recommendation likelihood, suggesting that aesthetic designs serve as signals of brand quality and reliability. The study further confirms that ambience of an establishment also affects the amount of time consumers choose to spend, therefore strengthening customer engagement and brand loyalty.

Overall, café aesthetics are not merely decorative but serve as a powerful experiential marketing tool that enhances perceived value, strengthens brand positioning, and drives positive consumer behaviour.

Recommendations

Across all three objectives, the findings of the study suggest that cafés should strategically invest in the aesthetic appeal of their establishments, particularly when targeting the Gen-Z consumers. The study clearly indicates that the Gen-Z consumers are highly influenced by aesthetic appeal, and look for Instagram-worthy experiences to promote their social happenings. The observations clearly point out that good aesthetic designs are directly proportional to customer attraction, perceived quality, brand loyalty and trust. Moreover, appealing aesthetics indirectly promote social media sharing which contributes to the mouth publicity and marketing of the establishments.

Cafés must treat ambience and interiors as the core branding element rather than secondary enhancements. Investing in interiors that reflect the long term trends such as nostalgia, nature, or retro themes, aesthetically appealing plating, well designed lighting, Instagram-friendly spaces in addition to good quality and service can significantly enhance customer engagement and footfall.

Considering the fact that good aesthetics are subconsciously linked with superior quality and social value, cafés that invest consciously in the visually appealing environments are more likely to build stronger customer relationships and strengthen their brand positioning. The results support the argument that aesthetic investment is not merely decorative but plays a measurable role in shaping consumer perception, satisfaction, and behavioural intention.

Scope and Limitation of the Research

The present study examines the influence of aesthetic design on the behaviour of customers, with the primary focus on elements such as interior design, lighting, plating and the overall visual impact. While the research provides valuable insights for experiential marketing, consumer perception within the café industry and brand positioning, it is subject to certain limitations.

The majority of the respondents belong to the age group of 18-22, which may restrict the general application of the study across wider demographic segmentations. Moreover, the use of convenience sampling may limit the representation of the overall café consumer population.

The study is based on the café consumer behaviour in Pune and Mumbai, the metropolitan cities of Maharashtra, India, and therefore may not be ideal for wider geographical contexts. Additionally, the study is strictly centred around the influence of aesthetic elements of a café and has not deeply studied other influential factors such as pricing, placement, quality of food / service or brand reputation. Lastly, since the data is collected at one point of time, it does not study the changes in behaviour over a period of time.

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THE PURPOSE OF SCHOOLING IN THE 21ST CENTURY: A PSYCHOLOGICAL AND INNOVATION PERSPECTIVE

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Abstract

The changing needs of the 21st century have led to a critical assessment of whether the schooling system is adequately preparing students to face psychological, professional, and societal needs. This paper explores the link between schooling processes and the psychological development of students, assesses the level of application-oriented and future-focused learning in schools, and determines the perceived mismatch between student needs and provision, specific to Coimbatore.

The research design was a mixed-methods approach. The data was collected from 101 students at the secondary and early undergraduate level using structured questionnaires and open-ended questions. The quantitative data was analysed using percentage distribution and Pearson correlation analysis, and the qualitative data was analysed using thematic analysis to explore experiential knowledge.

The results show that schooling has a positive influence on psychological aspects of a student. Perceived relevance to real life was most positively correlated with the level of practical experience, underscoring the importance of experiential learning for future readiness. The qualitative data also shows expressions about academic rigor, a culture of evaluation based on grades, and a desire for greater psychological safety. A very evident gap is visible in the 21st century schooling, in terms of requirements to provision.

According to the research, closing the perceived educational gap requires a comprehensive approach that takes into account structural challenges, autonomy-supportive education, and experiential learning. This study integrates psychology and innovation theories within a local educational setting.

Introduction

The educational system has historically evaluated student progress through three main components which include academic instruction, assessment methods, and student conduct rules. The 21st century demands more than existing fundamental elements because those elements maintain their importance. The development of educational institutions now requires schools to deliver psychological support because technological progress and new paths and student mental health issues made academic success insufficient.

The city of Coimbatore, which has a strong educational system, depends on schools to establish students' academic and personal development. The education system currently emphasizes performance-based learning together with measurable outcomes which creates doubts about the effectiveness of handling students' psychological. The process of learning creates psychological effects that shape how students build their confidence, motivation, learning behaviour and learning methods.

Learning environments which emphasize student compliance and testing success will create limitations which decrease students' ability to think creatively while they study. Educational institutions need to develop new methods of teaching which will help them reach modern educational requirements. Educational innovation needs to achieve educational transformation through the implementation of practical learning methods which combine multiple disciplines and teach students to solve problems and use their knowledge in real-life situations.

The educational methods which promote progressive learning still encounter a challenge because academic requirements of the 21st century do not match the actual experiences which students have at school. This research investigates how Coimbatore schools fulfil student psychological needs through an assessment of their educational practices and learning methods.

Review of Literature

Schools function as primary institutions which shape psychological development and academic achievement. Research indicates that student engagement functions as a key factor for academic success yet it fails to provide complete support for students to develop their psychological well-being. When schools satisfy students' needs for autonomy competence and relatedness adolescents display better social-emotional abilities and their behavioural performance improves. The need for well-being exists because environments that lack these needs will create negative effects despite people showing active participation. This shows that schools need assessment through two methods which involve both their academic results and their effects on student mental health. (Saeki & Quirk, 2015).

Schools serve as crucial developmental environments that create an impact on teenagers when they develop their identities and self-perceptions and their drive to achieve goals. Students develop psychologically through institutional systems which include teacher standards and classroom environments and their interactions with classmates. The academic environment during adolescence functions as a critical period which determines whether students will develop their confidence and internal drive or fall into apathy. The educational system should be studied as a developmental ecosystem which extends beyond its role as an instructional system. (Eccles & Roeser, 2011).

There is growing pressure on modern educational systems to adopt applied learning models rather than traditional, theory-heavy instruction. It has been demonstrated that in secondary education, practical learning improves problem-solving abilities, transferable skills, and deeper understanding. By enabling students to relate abstract concepts to practical uses, experiential learning raises relevance and student interest. For secondary education to be in line with the demands of the twenty-first century, practical learning must be reimaged. (Lucas et al., 2021).

Futures-oriented education stresses the development of long-term thinking, transdisciplinary understanding, and openness to alternatives in addition to practical exposure. When students take structured

futures courses, their thinking and openness improve noticeably, according to empirical research assessing futures-oriented pedagogical models. These results highlight the significance of pedagogical transformation by indicating that deliberate curricular innovation can yield measurable results that are in line with future readiness. (Hsu, 2020).

The overall school climate has a significant impact on students' perceptions of their readiness for the future. Stronger future orientation is linked to supportive, stimulating, and structured environments, whereas weaker climates may make students less confident about their long-term readiness. This implies that students' assessments of their future readiness are greatly influenced by institutional factors other than curriculum content. Therefore, it is necessary to look at both the environmental and instructional aspects of education in order to comprehend perceived gaps. (Lindstrom Johnson, Pas, & Bradshaw, 2016).

Many educational systems still use outdated curricula and reproductive pedagogies that put compliance above agency, despite the widespread calls for reform. These methods might not develop the kind of imaginative, morally aware, and proactive learners that are needed in quickly evolving societies. Systemic inertia may be a contributing factor to the misalignment between educational provision and changing societal expectations, as the critique of traditional curriculum structures highlights the conflict between reform discourse and classroom reality. (Edwards, 2025).

Research Objectives

1. To analyse relationship between schooling practices and students' psychological development (confidence, self-expression, behavioural comfort).
2. To evaluate the extent to which schools are innovating to provide practical and future-oriented learning experiences for students.
3. To identify gaps between student expectations of 21st-century schooling with their actual schooling experiences.

Research Methodology

This study follows a mixed-method research design using both quantitative and qualitative approaches. Primary data was collected through an online survey conducted among 101 students from Grades 9 to 12 and first-year undergraduate students studying in Coimbatore. Convenience sampling was adopted due to ease of access and time limitations. The survey consisted of close-ended questions, and the collected quantitative data was analysed using percentage analysis and correlation analysis. Qualitative data was gathered through open ended questions with the 101 respondents. The responses were analysed using qualitative thematic analysis. Secondary data was sourced from existing research papers and academic studies relevant to schooling and student development. The use of both primary and secondary data strengthens the overall findings of the study.

Data Analysis and Interpretation

The data collected from 101 students have been analyzed quantitatively through percentage and correlation analysis and qualitatively through thematic analysis.

1. Percentage Analysis

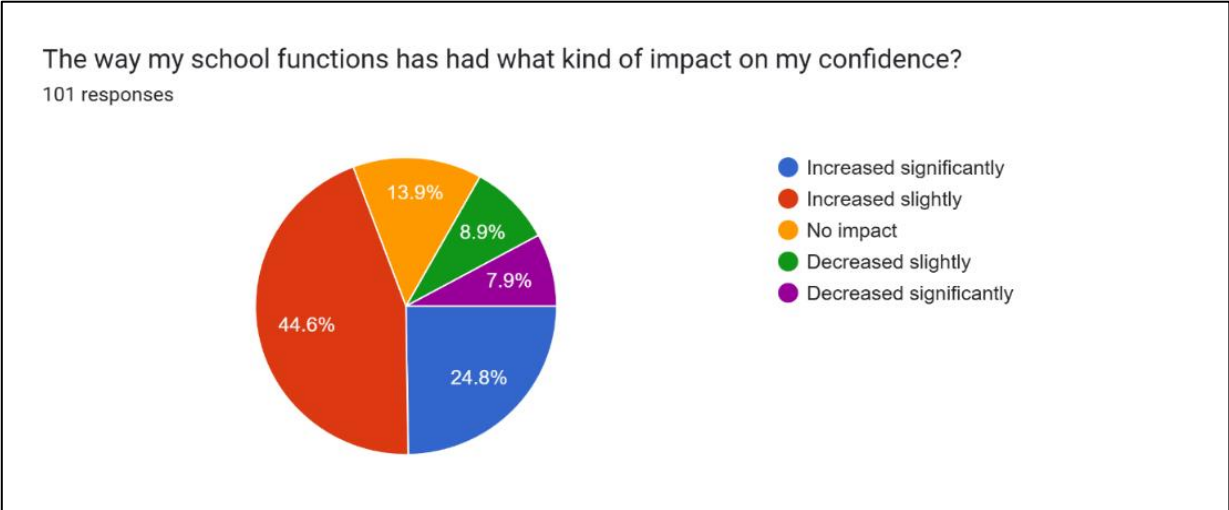
The respondents are 101 students from Coimbatore across Grades 9 to 12 and first, year undergraduate students. The maximum representation is from first year undergraduate students (25. 74%) and Grade

12 students (23. 76%), followed by Grade 10 (19. 80%), Grade 9 (15. 84%), and Grade 11 (14. 85%).

This spread represents the late secondary and early tertiary stages, thus securing a consideration of perceptions at a key academic transition stage. As all respondents are from Coimbatore, the results, represent schooling experiences in the regional educational setting.

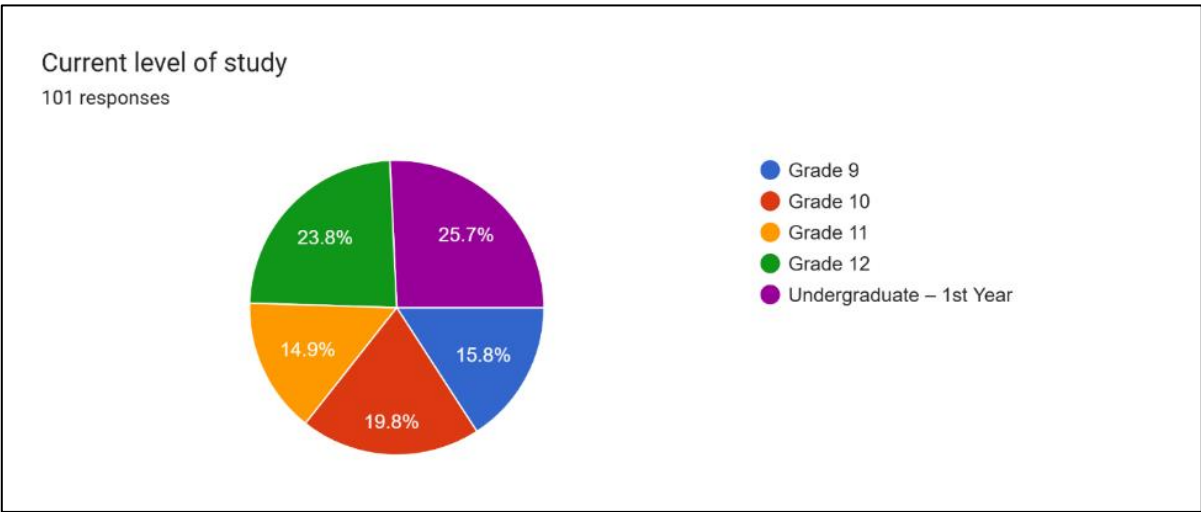
Objective 1: To analyse relationship between schooling practices and students’ psychological development (confidence, self-expression, behavioural comfort)

Figure 2: Impact of schooling and its function on student’s confidence



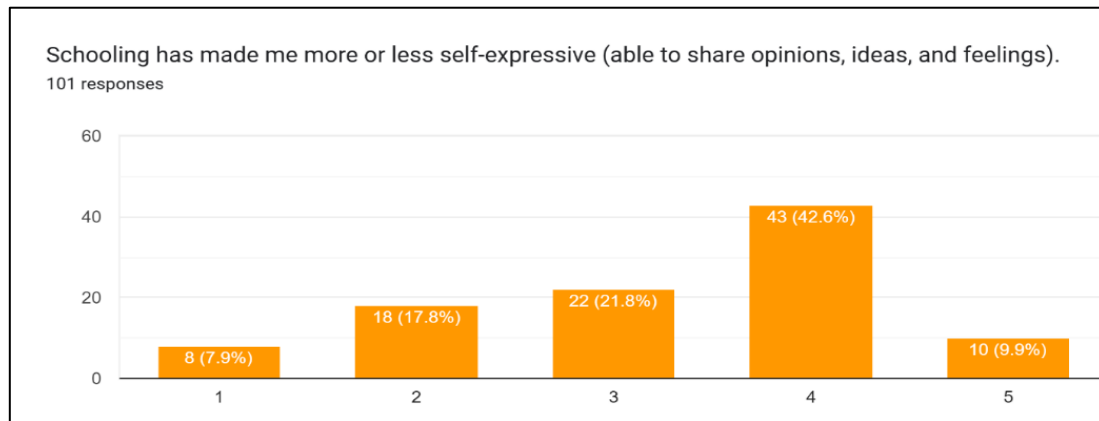
Source: Primary Data

Figure 2 The majority of respondents (69.3%) reported that schooling has positively impacted their confidence, with 44.55% indicating a slight increase and 24.75% reporting a significant increase. However, nearly 16.83% of students experienced either no impact or a negative impact on confidence.



Educational institutions support confidence development, but the effectiveness differs. Though fewer votes indicate decreased confidence, certain schooling practices reduce self-belief. Environments that provide co-dependency will facilitate psychological development according to Self-Determination theory.

Figure 3: Impact of schooling on self-expression (more or less self-expressive)

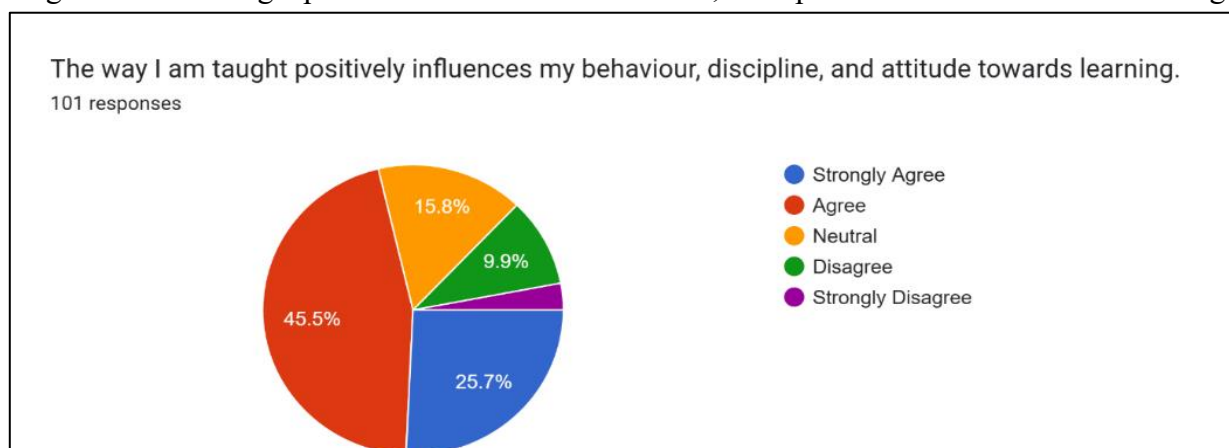


Source: Primary Data

Figure 3 A majority of students (52.47%) selected higher agreement levels (4 or 5), indicating that schooling has contributed positively to their ability to express opinions and ideas. However, 25.74% selected lower scores (1 or 2), suggesting that for a significant proportion of students, schooling may restrict open expression.

The density at level 4 instead of 5, points to moderate as opposed to strong strengthening of self-expression. Though a regulated classroom environment supports participation, there is no freedom of thought. The pattern reveals that the autonomy needs were only partially satisfied and that there was no optimal psychological empowerment.

Figure 4: Schooling a positive influence on Behaviour, Discipline & Attitude towards learning

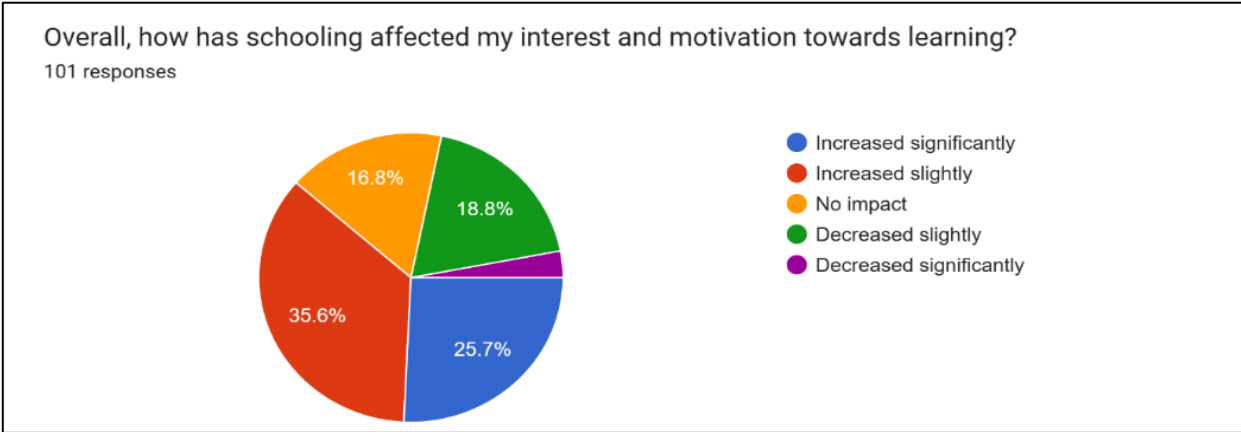


Source: Primary Data

Figure 4 A strong majority (71.28%) agreed that schooling positively influences their behaviour and discipline. This suggests that schools are effective in shaping structured behavioural norms and attitudes toward learning.

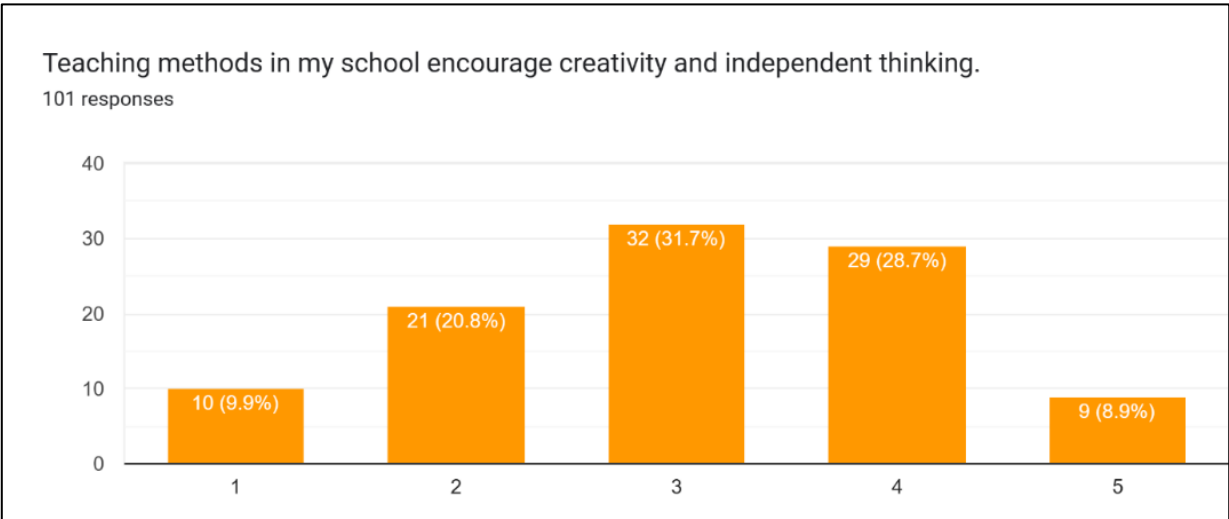
Nevertheless, better behaviour is not proof of mental comfort. Traditional schools are great at discipline, but also neglect students' feelings and fail to nurture an independent thought process. A compliance-oriented environment is derived, than creativity-oriented, through the striking contrast of high behavioural influence and moderate self-expression.

Figure 5: Overall impact of schooling on interest and motivation towards learning



Source: Primary Data

Figure 5 While 61.38% reported an increase in motivation, a considerable 38.61% reported either no change or a decrease in motivation. This reveals a divided impact of schooling on intrinsic interest toward learning.



More students voted a very small increase rather than a big increase, suggests that motivation is probably coming from outside (exams, grades) rather than deep inside. The drop in motivation of almost 20% of students might be the result of peer pressure, very strict curriculum, or personally irrelevant concepts. It shows that schooling can help to form discipline but its power to keep students' intrinsic motivation up for a long time is limited.

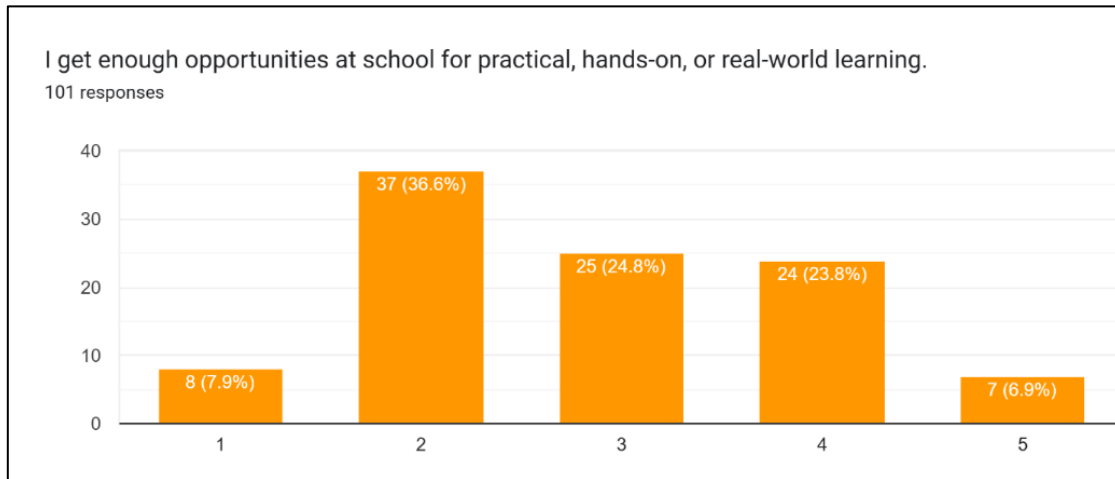
To conclude, these results point to schooling as having a major impact on students' behaviour and confidence, whereas the effects on intrinsic motivation and self, expression seem to be moderate and vary across the respondents.

Objective 2: To evaluate the extent to which schools are innovating to provide practical and future-oriented learning experiences for students.

Figure 6 The majority of students selected moderate responses (3 or 4), accounting for 60.39% of responses. However, only 8.91% strongly agreed that teaching methods strongly encourage creativity and independent thinking. Meanwhile, 30.69% selected lower ratings (1 or 2), indicating limited encouragement of creativity.

There is no strong recognition of creativity in schooling practices, thus a moderate response. Only partial innovation is observed and not a systematic development towards creative pedagogy.

Figure 7: Opportunities at school for practical, hands-on or real-world learning

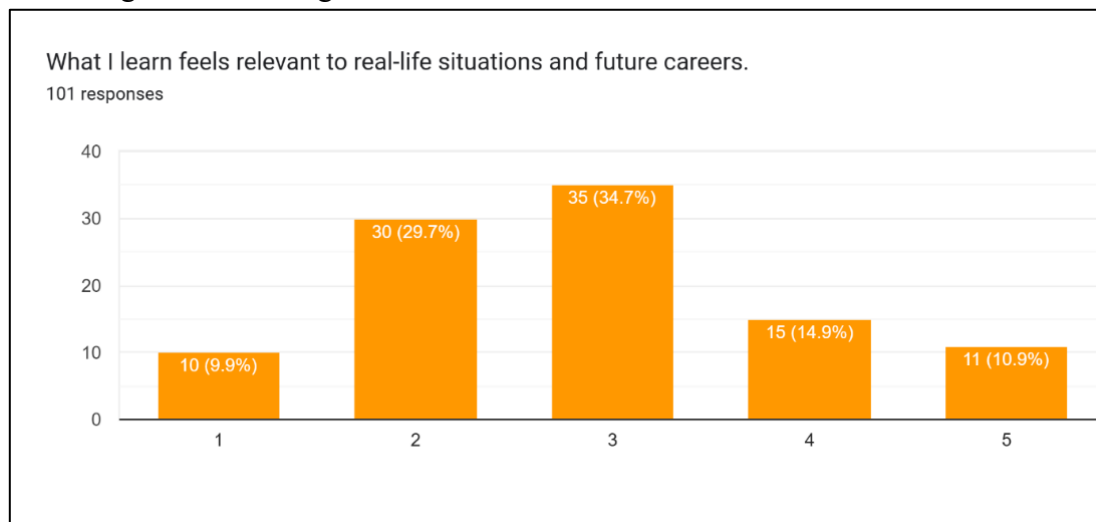


Source: Primary Data

Figure 7 A significant proportion of students (44.55%) selected low scores (1 or 2), with the highest single category being level 2 (36.63%). Only 6.93% strongly agreed that they receive sufficient practical exposure.

Limited real-world learning opportunities has been observed. Integration of experiential and practical application of concepts continue to be limited and theoretical instructions continue to dominate Coimbatore schooling practice.

Figure 8: Learning feels relevant to real-life situations and future careers



Source: Primary Data

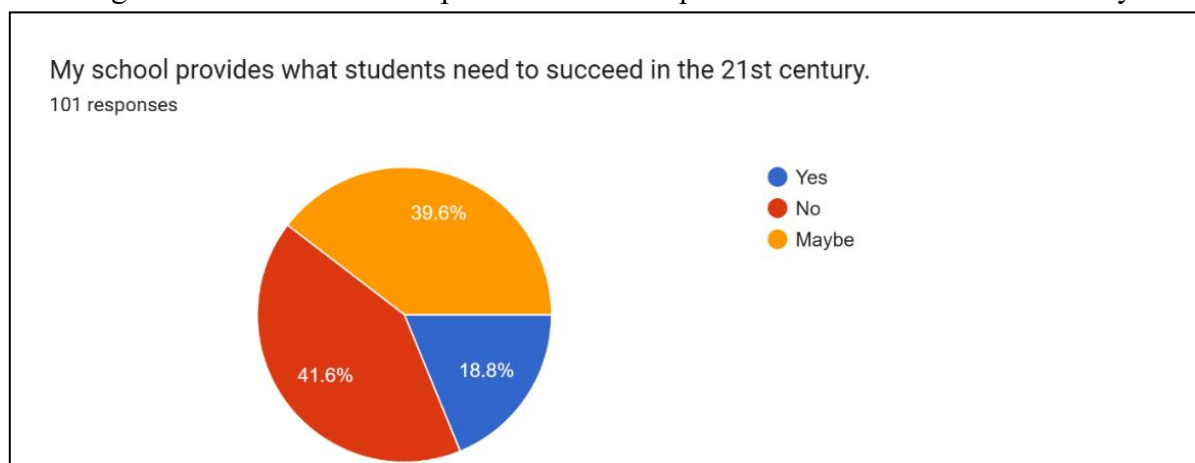
Figure 8 The majority of students clustered around moderate (3) and lower-moderate (2) responses. Nearly 39.6% rated relevance positively (4 or 5), while 39.6% rated it negatively (1 or 2), showing a near-even split.

This suggests that students have different views as to how relevant the curriculum is. Some students see the practical application while others don't form a strong connection between academic content and future careers. This points to a discrepancy between curriculum design and future ready skills.

The results depict, some signs of innovation in Coimbatore schools but are not deeply ingrained. Encouragement of creativity seems to be there but not very strongly institutionalised. Practical exposure is clearly insufficient, and the idea of real-life relevance is still debated. Overall, educational practices are more like gradual innovation rather than a complete change towards future education.

Objective 3: To identify gaps between student expectations of 21st-century schooling with their actual schooling experiences

Figure 9: Does their school provide what is required to succeed in the 21st century



Source: Primary Data

Figure 9 Only 18.81% of students believe that their schools adequately prepare them for 21st-century success. A large majority (81.18%) responded either “No” or “Maybe,” indicating uncertainty or dissatisfaction.

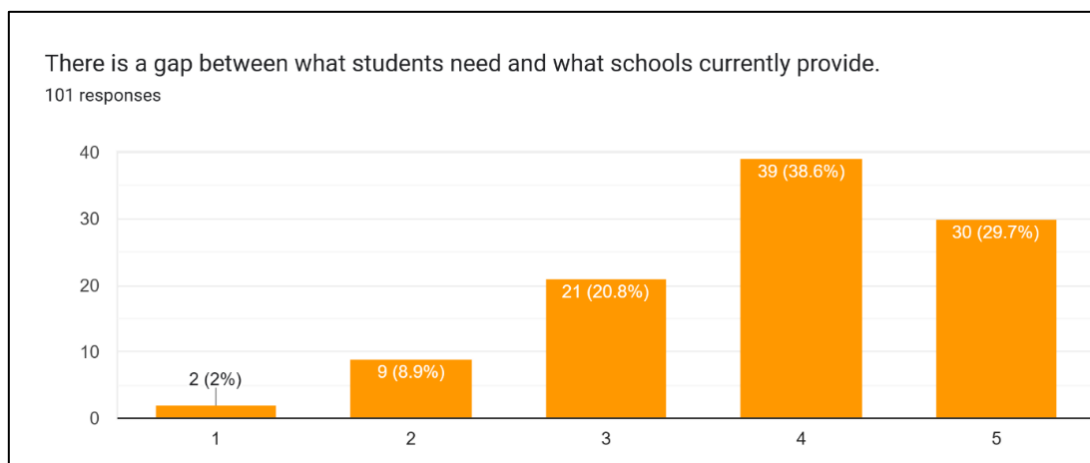
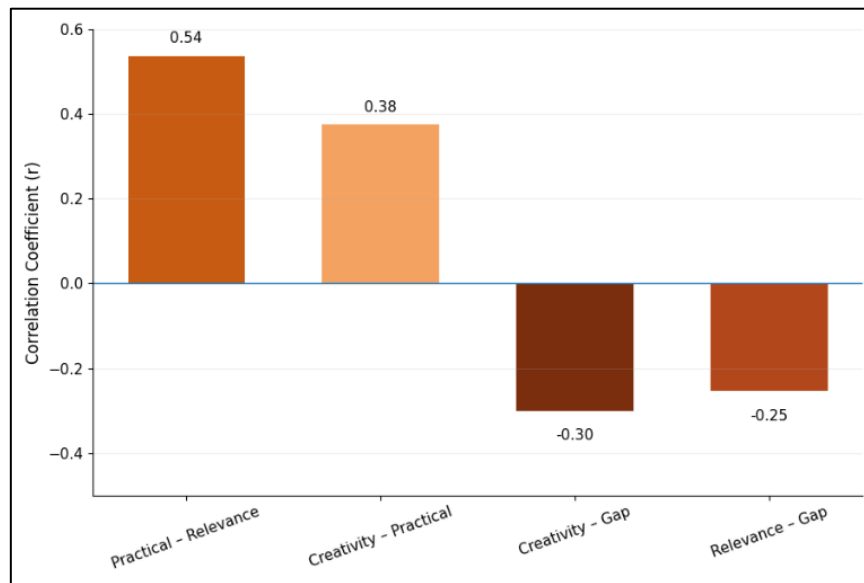
This suggests that confidence in institutional preparedness for future demands is relatively low among students in Coimbatore.

A strong majority (68.31%) selected high agreement levels (4 or 5), indicating that students clearly perceive a gap between what they need and what schools currently provide. Only 10.89% selected low agreement (1 or 2), reinforcing that the perception of a systemic gap is widely shared among respondents. This is one of the strongest findings in the dataset and directly supports Objective 3.

The statistics unmistakably show that students view a gap between schoolwork and what is needed in the 21st century. Although there is some degree of innovation, most people question whether the institution is prepared. The high level of agreement in the perception of the gap is indicative of a structural misalignment

between curriculum design, teaching practices, and developmental expectations. This forms the major focus of study.

2. Correlation Analysis



Source: Primary Data

Figure 11: Correlation Analysis

CORRELATION ANALYSIS	Creativity	Practical Exposure	Real Life Relevance	Self Expression	Perceived Gap
Creativity	1.00	0.38	0.31	0.27	-0.30
Practical Exposure	0.38	1.00	0.54	0.19	-0.16
Real Life Relevance	0.31	0.54	1.00	0.16	-0.25
Self Expression	0.27	0.19	0.16	1.00	-0.02
Perceived Gap	-0.30	-0.16	-0.25	-0.02	1.00

Source: Primary Data

To investigate the link between innovation practices and perceived student outcomes, Pearson correlation analysis was carried out on selected variables that were in line with the study objectives.

A strong positive correlation was found between **practical training and real-life relevance** ($r = 0.54$). This means that the more hands-on-learning, students perceive higher curriculum relevance. Thus, the finding directly backs up objective 2, which is about assessing how much schools are giving students practical and future, oriented learning experiences.

A moderate positive correlation existed between **creativity encouragement and practical exposure** ($r = 0.38$), thus, classrooms fostering independent thinking, probably have more experiential learning practices. This is a picture of how interconnected innovation is within school environments.

A moderate negative correlation was observed between **creativity encouragement and perceived gap** ($r = -0.30$) The more that teaching supported by creativity was experienced, the less the gap between needs and provision by the institution was perceived. In this way, the finding is helpful to Objective 3 that shows innovation can be means of closing the structural gap.

Real life relevance with perceived gap, showed a negative correlation ($r = 0.25$). Students who felt real-world relevance in their learning, were less inclined to feel educational disconnect as reasons for schools not meeting the demands of the 21st century. This indeed aligns the two concepts of relevance and school conformity on the structural plane.

On the whole, the results indicate that hands-on-learning and innovation-centred methods of instruction are the major mediating factors between schooling experiences and perceived preparedness.

3. Thematic Analysis

Theme 1: Demand for Practical and Relevant Learning

Majority of students showed dissatisfaction with only theory-based learnings while prioritising real-world application requirements. They highlighted the lack of connection between learning and practical life and career pathways. This emphasises moderate relevance to learnings in spite of complete curriculum coverage.

One respondent stated:

“Right now, education feels more like a fixed path than a space for discovery.”

This highlights students’ perception that schooling lacks exploratory and application-based flexibility.

Theme 2: Need for Future-Oriented and Adaptive Education

Students pinpointed the role of technology, AI awareness, and skills development as major areas for educational renewal. The responses indicate that learners are aware of the fast pace of societal and technological changes and look-forward to schools to provide necessary adaptations. Requirement for cross-disciplinary exposure, indicates educational systems are out of sync with the new global requirements.

Theme 3: Psychological Safety and Autonomy in Learning

Many responses were emotionally charged with concerns about the pressure to perform and treatment in class. Although not by a majority, the depth of these responses recognises a significant effect on their mental health.

One student directly expressed:

“DO NOT HUMILIATE PEOPLE INTO LEARNING.”

Other concerning expressions:

“Teachers shouldn't be the one to decide if you are worth or worthless just based on your marks.” “Verbal abuse towards kids... this directly affects their psychological mind and gives them serious traumas and mental issues which last life long.”

These comments reveal that, the fair practices in the schools are not limited to academic performances only but affect self-esteem and psychological health in the long run.

Suggestions

Based on the study quantitative and qualitative data, a set of institutional interventions has been proposed to enhance psychological strengthening, exposure to the real, life and the 21, century alignment.

1. Deepening Psychological Development Frameworks

School can formalise well-being circles every two months for students from Grade 8 onwards which will be run by professionally qualified counsellors to create an avenue for safe emotional expression and detect early signs of distress. Students can be asked to do a personal development card (PDP) which will provide self-awareness and self-validation beyond the academic scoring. Furthermore, a personal development record of a student from leadership and behavioural changes to confidence development and spotting talents will facilitate holistic evaluation.

2. Embedding Practical & Real-Life Exposure

Organizations should replace their current career presentations with professional demonstrations that use live industry expert shows. The combination of student-run enterprises, real-world simulations, budgeting exercises and supervised community initiatives will improve applied skills and financial literacy. The establishment of hybrid learning systems between schools will expand subject access while providing students with multiple academic pathways.

3. Bridging the Preparedness Gap

The schools can embed industry, recognised certifications in the curriculum, set up units for internships and college preparatory work, and hold curriculum review based on relevance through annual audits thus ensuring the school is adaptable and aligned with the fast, changing world and professional demands.

Conclusion

This research attempted to define the role of education in the 21st century by analysing psychological development, innovation activities and the perception of institutional alignment in the Coimbatore context. The results point to the fact that schooling still plays a major role in ensuring structural and academic grounding, but its perceived success is increasingly judged by the availability of experiential learning opportunities and psychologically safe environments.

Practical exposure was identified as a key factor determining the real, life relevance, and innovative practices were linked to less perception of the institutional gap. On the other hand, the self, expression at moderate levels and qualitative issues about the rigidity and marks, based identity evaluation point to the problems that the whole system needs to be turned to.

Besides, the study theoretically adds up the psychological development and innovation frameworks within the analysis of schooling at a local level, thus exposing how structural behaviours affect the feeling of being prepared. The system offers that the execution of the institutional solutions should focus on the combining of experiential learning with psychological safety systems and the 21st, century operational requirements.

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THE COMMUTE THAT COMPOUNDS: EVALUATING SUSTAINABLE PUBLIC MOBILITY SYSTEMS THROUGH THE SAFAR FRAMEWORK IN METROPOLITAN INDIA

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Abstract

Sustainable urban transportation is a defining challenge for global sustainability compelling developing nations like India to undertake critical investments in metro rail and electric bus systems. This paper evaluates the effectiveness of these public commuting systems in metropolitan India.

The paper uses a mixed-methods approach that combines primary survey data from 100 commuters across eight Indian cities with secondary data from government reports and peer-reviewed literature. Descriptive statistics, Pearson correlation analysis and internal reliability assessment have been employed to measure the relationship between usage frequency, infrastructure adequacy, reduction in private vehicle usage, perceived air pollution and long-term sustainability perception.

The study proposes the Sustainability, Accessibility, Fare equity And Ridership (SAFAR) Framework. SAFAR combines the Avoid-Shift-Improve (ASI) model with the Multimodal Integration Framework across four dimensions: environmental effectiveness, infrastructural quality, commuter behaviour and affordability. The study additionally takes into account transport infrastructure, commuter perceptions, pre and post pandemic changes which have influenced the emission trends over time.

The study recognizes public mass commuting as a critical backbone for sustainable urban mobility which contributes to reduced traffic congestion and low per-capita emissions. This paper contributes to the growing scholarly discourse on green mobility in the context of densely populated developing nations, particularly urban Indian cities.

1. Introduction

India is the third-largest emitter of greenhouse gases globally, behind China and the United States. Electricity and heat generation account for more than half of the emissions, followed by agriculture and transportation in India's emissions profile (WRI, 2023). Despite the transport sector contributing a smaller proportion of India's total emissions in comparison to other nations, its trajectory is shaped upward. Rise

in population coupled with urbanization will increase transport emissions substantially. This positions decarbonization of urban transport as a critical pillar in India's climate commitment.

Since 2014, the Indian government has invested approximately 2.5 Lakh Crore for metro rail networks and 56.75 Lakh electric vehicles have been registered as of February 2025 (PIB, 2025), with the explicit objective to provide affordable mobility across densely populated urban regions.

India's network of public transportation systems has recovered robustly and even surged after the COVID-19 Pandemic. For instance, the Delhi Metro has recorded an unprecedented 68.16 lakh passenger ridership at 2023 after the pandemic (DMRC, 2023). The surge in ridership post-pandemic reflects the mobility demand and structural shift in commuter preferences to public transportation. Remote and hybrid work arrangements have only further accelerated this structural shift and helped reduce traffic congestions at peak timings.

In spite of the scale of these investments and post-pandemic recovery, the existing literature on Indian public transit is largely focused on policy formulation in the pre-pandemic era. However, limited research has been conducted for the commuter experience: usage patterns, environmental perceptions, infrastructure quality and attitudes about long-term sustainability.

This gap is significant as commuter behaviour can greatly affect the extent to which transit systems are able to effectively achieve environmental sustainability. This paper addresses this gap through its mixed-methods approach to investigate commuter perceptions of metro rail networks and electric buses across eight Indian metropolitan cities.

It proposes its own original framework: The Sustainability, Accessibility, Fare Equity and Ridership (SAFAR) Model to expand on existing empirical findings with the help of inferential and descriptive statistics along with integration of secondary government data. Hence in this process, it positions India as a critical and instructive case for economical sustainable mobility in urban metropolitan cities of developing countries due to its heavily populated nature.

Through recognising the crucial role of the public transportation ecosystem in India consisting of metro rail systems and electric buses, this paper investigates how daily commutes by millions can be made more economical, convenient and sustainable across metropolitan cities in India.

2. Review of Literature

2.1 Global Context of Sustainable Development

The study is aligned with the globally established frameworks of sustainable development with specific emphasis on urban green mobility. The conceptual foundations of the study are drawn from the Earth Summit 1992 at Rio de Janeiro, which articulated the postulate of meeting present demands whilst not compromising on the needs of future generations (UNCED, 1992).

Sustainable commuting is linked through sustainable developmental goals, particularly SDG 11 (Sustainable Cities and Communities) and SDG 13 of (Climate Action), both of which identify green mobility as an important dimension of urban sustainability (UNDP, 2015).

This reflects that the future of urban mobility is dependent on public sustainable transport systems which are both economical and low in greenhouse gas emissions.

2.2 Theoretical Frameworks

The study is anchored by a combination of two key frameworks:

The Avoid-Shift-Improve (ASI) Framework (GIZ, 2015) and The Multimodal Integration Framework in order to examine the effectiveness of public sustainable transit in India.

The Multimodal Integration Framework recognises that the transit system effectiveness is strongly conditioned by the quality of connections between modes. First and last mile connectivity is critical in India cities.

This framework directly links with the One Nation, One Card (NCMC) initiative which aims to create a unified ecosystem spanning between metro networks, E-buses, suburban rail and more.

The Avoid-Shift-Improve (ASI) Framework (GIZ, 2015) model structures sustainable transport policy strategies into three dimensions: Avoid, Shift and Improve. This framework helps in increasing system, trip and vehicle efficiency.

Table 1: The Avoid-Shift-Improve (ASI) Framework Applied to Metropolitan India

THE AVOID-SHIFT-IMPROVE (ASI) FRAMEWORK	
STRATEGY	DESCRIPTION (Within Indian Context)
AVOID	Focuses on reducing aggregate travel demand through proper traffic management, efficient utilisation of resources and digital substitutes for physical daily trips. The use of remote and hybrid working culture during and after the COVID-19 Pandemic can help in reducing congestion at peak timings.
SHIFT	Focuses on moving towards environmentally beneficial modes of transportation. It involves the transition from high-emission private modes to low-emission public transport. In order to create a shift to these energy efficient modes, significant infrastructure must be built to suit pedestrians, run multiple metro and e-bus networks while maintaining an affordable cost in order to provide accessibility.
IMPROVE	Involves increasing the environmental efficiency of vehicles and systems through electrification, renewable energy integration and operational optimisation. India has done this through its extensive investment in metro rail networks and electric buses. India's PM E-DRIVE scheme, NEMMP (2020) and FAME initiatives help accelerate the growth of electric vehicles. Additionally, metro systems are inculcating eco-friendly infrastructure through solar plants, regenerative braking systems and (IGBC) Certifications.

(Source: Adapted from GIZ, 2015)

2.3 Empirical Evidence

Abu-Eisheh et al. (2020) demonstrates the rising private vehicle ownership can co-exist with the desire to move towards green mobility despite inadequate awareness of energy efficiency in Palestine. This finding

is directly relevant to India, suggesting that despite the growth in private vehicle sales, there should be public alternatives.

Yuan et al. (2023) was able to identify a consistent methodological limitation in Life Cycle Assessment (LCA) studies which often do not undertake construction and decommissioning phase emissions. This is relevant as construction related emissions can be extremely significant for the rapid urbanisation in India.

Martinez and Samaras (2024) provided empirical evidence that electric buses help in reduction of greenhouse gases. These findings prove to be a rationale for India’s PM E-Drive scheme which aims to deploy 14,028 electric buses across cities.

Ndhlovo et al. (2025) highlights the need for public and private sectors to work together for decarbonisation. This strongly aligns with Indian policies which put government at the forefront of electric vehicles in India, when compared to relying only on the private sector for changes.

Liu and Liu (2025) applies system dynamics modelling and found that energy optimisation of public transit can achieve up to 11.32% of carbon reduction. This when scaled to India’s aggregate, would imply transformative reductions in emissions.

2.4 The SAFAR Framework: Sustainability, Accessibility, Fare Equity and Ridership

This study proposes the **SAFAR Framework: Sustainability, Accessibility, Fare Equity and Ridership**. as an original integrative lens for evaluating sustainable public transit effectiveness in high-density developing-country contexts.

SAFAR Framework integrates four dimensions: Environmental effective, Infrastructural Quality, Commuter behaviour perception and Affordability. Its four dimensions map deliberately onto the Brundtland Commission's (1987) three pillars of sustainable development, making SAFAR a sustainability evaluation tool applied to transit.

SAFAR addresses this gap left by both the ASI model which is policy-oriented and the Multimodal Integration Framework, which addresses connectivity but not commuter experience and equity. The word “Safar” which means journey reflects the central conviction of this paper, which deems sustainable transport to be beyond infrastructure: which can only begin and end with human journey.

The four dimensions of SAFAR span deliberately onto the three pillars of sustainable development established by the Brundtland Commission (1987) in Our Common Future: Environmental, Economic and Social.

S.no	Dimensions	Brundtland Pillars	Theoretical Evidence	Seeks to Study	Variables of the study
1	Environmental Effectiveness	Environmental	LCA methodology; Yuan et al. (2023); Martinez & Samaras (2024)	Long-term sustainability	V4

2	Infrastructure Quality	Economic	SERVQUAL; Parasuraman et al. (1988); Eboli & Mazzulla (2007)	Infrastructural Adequacy	V2
3	Commuter Behaviour Perception	Social: Behavioural	Theory of Planned Behaviour; Ajzen (1991)	User perceived effectiveness	V1, V3, V5
4	Affordability and Equity	Social: Justice	Transport Justice; Martens (2012); Sen's (1999) Capability Approach	Accessibility of the system	<i>Not measured in this study *</i>

Table 2: The SAFAR Framework

Table 2: The SAFAR Framework (Source: Self)

Environmental Effectiveness: It aims to evaluate the environmental impact of public transport systems. It is grounded in Life Cycle Assessment methodology (Yuan et al., 2023) and electric vehicle emissions research (Martinez and Samaras, 2024), this dimension evaluates the environmental pillar of sustainability.

Infrastructure Quality: It focuses on the accessibility, reliability and commuter experiences. This dimension is grounded in the SERVQUAL model (Parasuraman et al., 1988), which measures the gap between what a service promises and what users actually experience. This framework was adapted specifically to public transit by Eboli and Mazzulla (2007). In this study, Infrastructure Quality is measured through V2 (Infrastructure adequacy) It records the weakest mean score of all five variables (2.83, approaching neutral). This partial satisfaction is important because it identifies infrastructure quality as the point where India's public transit system is falling short of its own potential.

Commuter Behaviour and Perception: This dimension is rooted in Ajzen's Theory of Planned Behaviour (1991) which argues that people's behaviour is shaped by attitude, social norm and perceived control. This study measures this across usage frequency (V1), Reduction of private vehicle usage (V3) and perceiving public transit as a viable long-term solution for sustainability (V5). The strong and statistically significant correlation between usage frequency and private vehicle reduction ($r = 0.683$, $p < 0.001$) directly confirms what this dimension predicts, that using public transit more consistently leads to measurable reductions in private vehicle dependence.

***Note: Affordability and Equity:** While metro fares are broadly affordable for this study's sample (predominantly young, employed commuters in Hyderabad and Bengaluru), "urban India" is not synonymous with "middle-class India." A transit system that is inaccessible to the economically poorer sections of the society violates the fundamental social contract of sustainability. Affordability and Equity is retained as an explicit future research priority.

Infrastructure Quality moderates the relationship between Environmental Effectiveness and Commuter Behaviour in the sample obtained. Interpreted through the SAFAR framework, the findings present a coherent picture. Environmental Effectiveness is confirmed by both primary perceptions and secondary data. The Commuter Behaviour dimension is validated by the strong correlations between usage frequency and private vehicle reduction ($r = 0.683$) and between environmental attitudes and sustainability perceptions ($r = 0.441$). Infrastructure Quality, however, is the weakest dimension in the dataset, supported

by secondary evidence on first and last mile gaps. The most impactful policy therefore is not further expansion, but infrastructure improvements for better commuter experience.

Table 3: The SAFAR Moderation Interaction: Infrastructure Quality as binding constraint on behavioural change

Environmental Effectiveness Mean = 2.14	Infrastructure Quality Mean = 2.83 (Weakest)	Commuter Behaviour Mean = 2.59
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(Source: Self)

This prediction is empirically confirmed in this study's data: strong environmental conviction (mean = 2.14) coexists with only moderate behavioural change (mean = 2.59) precisely because Infrastructure Quality approaches neutrality (mean = 2.83).

The SAFAR framework validation through factor analysis and structural equation modelling across larger, more diverse urban contexts is identified as a priority for further future research.

2.5 Research Gaps

There are two significant gaps identified in the existing peer-literature addressed by this study. First, Infrastructure quality is acknowledged as an independent policy variable rather than a measurable mediator which is able to link environmental attitudes to behavioural outcomes. This is addressed by correlation analysis and the SAFAR framework proposed by the paper.

Second, commuter-oriented dimensions of public transit effectiveness remain largely unexplored in Indian literature. This study addresses this gap through exploring the relationship between environmental awareness, infrastructure satisfaction and long-term attitudes through original statistically tested survey data.

3. Research Objectives

1. Evaluate commuter perceptions of environmental effectiveness of public transit, specifically metro rail and electric bus systems in metropolitan India with a mixed-method approach.
2. Examine the role of infrastructure adequacy in between environmental perceptions and commuter behaviour, as proposed by the SAFAR framework.
3. Evaluate mass public commuting systems as a viable long-term sustainable solution for urban commuters in metropolitan India.

4. Research Methodology

4.1 Research Design

The study adopts a mixed-methods approach through integrating quantitative primary questionnaire data with qualitative secondary sources. This is both descriptive (examining commuter perceptions and usage frequency) and analytical (examining statistical relationship between variables).

4.2 Data Collection

Primary data was collected through a structured online questionnaire distributed via Google forms to 100 respondents across eight Indian metropolitan cities. The questionnaire comprised of two main sections:

(a) demographic data (age, gender and city of residence) and

(b) Five Likert-scale items measuring the study's key variables.

A reversed five-point Likert scale was adopted (1 = Strongly Agree, 5 = Strongly Disagree). This suggests that the lower the mean scores, the stronger the agreement between variables. An acceptable reliability coefficient using Cronbach's alpha was $\alpha = 0.653$, which qualifies this study for exploratory research. Secondary data is drawn from peer-reviewed academic literature, official Indian government statistics and reports (PIB, SIAM) from multilateral organisations.

4.3 Sampling

Non-probability sampling was employed combined with purposive and convenience techniques. Purposive sampling helps target commuters with direct experience of metro rail or electric bus services. Convenience sampling has been employed due to practical accessibility constraints. Total sample $n = 100$ across eight Indian cities.

It should be noted that the sample is demographically concentrated, with 86% of respondents of the age group 18 to 25 years, 75% female respondents and almost 79% located in Hyderabad and Bengaluru. These characteristics limit generalisability aspect of these findings and must be considered while interpretation of results.

4.4 Statistical Tools

Statistical tools involve descriptive statistics (mean, standard deviation, median, range); Pearson correlation with two-tailed p-values; 95% confidence intervals via Fisher's z and Cronbach's alpha for internal reliability. All this analysis was conducted on the complete dataset of $n = 100$ responses.

5. Data Analysis and Interpretation

5.1 Demographic Profile

Table 3; Table 4 and Figure 1 present the demographic breakdown of the sample. ($n = 100$)

Table 4: Age range of the Respondent

AGE GROUP	PERCENTAGE (%)
18 – 25 years	86%
26 – 35 years	4%
36 – 45 years	5%
46 – 55 years	5%
Total	100

(Source: Self)

With 86% of respondents of the survey being between the age of 18 to 25 years, the sample is primarily composed of younger participants. Although the research is limited to the large concentration of the younger age group, it helps draw major insights from young rider data which can prove to be significant for future of green urban mobility.

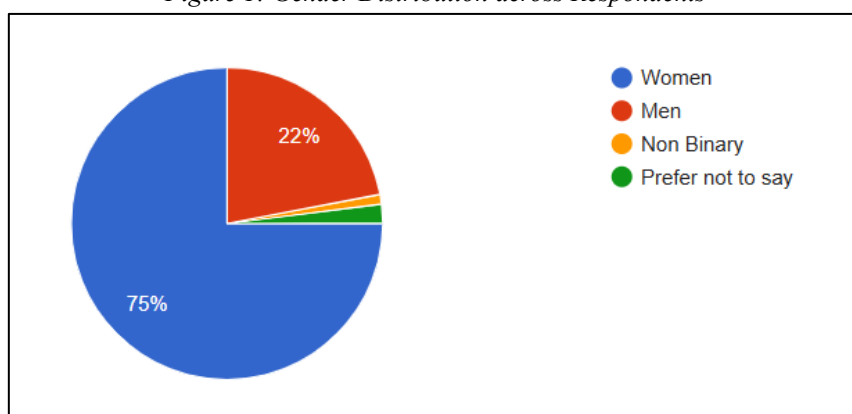
Table 5: City distribution of Respondents

CITY	PERCENTAGE (%)
Hyderabad	42%
Bengaluru	37%
Mumbai	9%
Delhi	4%
Others	8%
Total	100

(Source: Self)

The survey covered respondents across eight Indian metropolitan cities. Hyderabad (42%) and Bengaluru (37%) being the main contributors followed by Mumbai (9%) and Delhi (4%). This is notable as both Hyderabad and Bengaluru have built a strong network of Metro systems and Electric buses making them pertinent.

Figure 1: Gender Distribution across Respondents

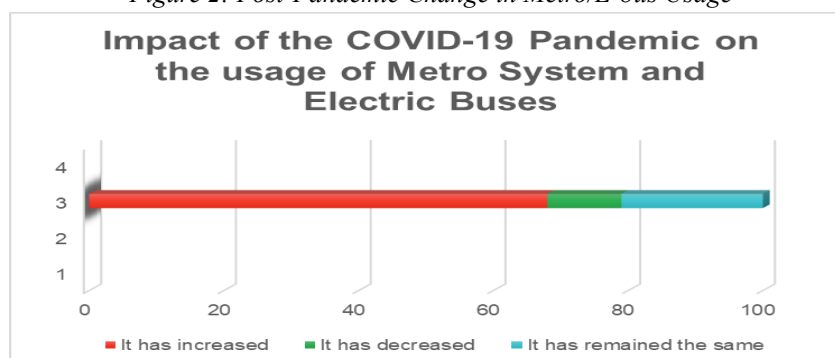


(Source: Self)

The sample predominantly consists of women (75%) followed by men (22%) and with a small proportion preferring to not disclose (2%). The higher response rate from women can suggest women in Indian cities perceiving public transit as a safer commuting choice rather than private vehicles.

5.2 Post Pandemic Usage Patterns

Figure 2: Post-Pandemic Change in Metro/E-bus Usage



(Source: Self)

Figure 2 illustrates the commuter reported shifts post pandemic in usage of metro and electric buses. The data suggests a notable increase in ridership post pandemic which remains consistent with recovery trends observed across Indian metro rail networks. This reflects that potential shift towards public transit, accelerated due to hybrid and remote working patterns, and thereby reduced congestion during peak hours.

5.3 Descriptive Statistics

Table 5 presents the full descriptive statistics for all five variables. The range remains 1-5 for all the variables on the Likert Scale. The reversed Likert scale means lower the value, stronger the agreement.

Table 6: Descriptive Statistics using the Reversed Likert Scale (1 = Strongly Agree, 5 = Strongly Disagree), n = 100 (Source: Primary Survey)

	Variable Measured	Mean	Median	Standard Deviation
1	Usage Frequency of Metro/E-buses	2.52	2.0	1.41
2	Perception of Infrastructural adequacy	2.83	3.0	1.18
3	Reduction in the usage of Private Vehicles	2.59	2.0	1.30
4	Impact of Metro/E-buses upon Air pollution reduction	2.14	2.0	1.15
5	Long Term solution for urban green mobility	1.48	1.0	0.76

(Source: Self)

Variable 5, which proposes that Metro/E-bus systems can be a sustainable and effective long-term solution for urban transportation has the lowest mean of 1.48, thereby indicating the strongest argument among all five variables.

Followed by the 4th Variable, which suggests that air pollution has decreased due to usage of Metro/E-bus systems shows strong agreement with a mean of 2.14. This suggests that respondents perceive and desire environmentally friendly modes of transportation and view Metro systems and E-buses in a positive light.

Whereas, Usage frequency of Metro/E-buses (2.52) and Reduction the Usage of Private Vehicles (2.59) display a moderate level of agreement. This leads to the fact that respondents use public transport and operate private vehicles at a moderate level, which again enhances the need for Multimodal Integrational Transport Structures for a complete Shift-Strategy.

Lastly, Infrastructure Adequacy records the highest mean value of 2.83, this shows partial satisfaction with the present infrastructural efforts made by the government. This is the mean which comes closest to a neutral argument. This finding is particularly important as it can suggest that public transit positively perceived as sustainable and eco-friendly option may become an area of concern for commuters due to infrastructural preferences.

5.4 Inferential statistics: Correlation Analysis with Significance Testing

Correlation Analysis was used on the variables in order to examine the relationships across the variables.

Figure 3: Pearson Correlation Analysis Matrix ($n = 100$) Across All Five Variable (Source: Primary Survey)

	Usage Frequency of Metro/E-buses	Perception of Infrastructural adequacy	Reduction in the usage of Private Vehicles	Impact of Metro/E-buses upon Air pollution reduction	Long Term solution for urban green mobility
Usage Frequency of Metro/E-buses	1				
Perception of Infrastructural adequacy	0.235492804	1			
Reduction in the usage of Private Vehicles	0.683049061	0.249524778	1		
Impact of Metro/E-buses upon Air pollution reduction	0.209096032	0.232374045	0.159304437	1	
Long Term solution for urban green mobility	0.160877601	0.227296619	0.129549034	0.441401882	1

(Source: Self)

Table 7: Primary Correlation Results with 95% Confidence Intervals (Fisher's z-transformation)

Correlation Variables	r	P-value	95% CI	Result
V1 Usage Freq * V3 Private Vehicle Reduction	.683	< .001	[.562, .775]	Strong association
V4 Air Pollution * V5 Long-term Solution	.441	< .001	[.268, .587]	Moderate-strong association
V1 Usage Freq * V2 Infrastructure	.235	.018	[.041, .413]	Significant association
V2 Infrastructure * V3 Private Vehicle	.250	.012	[.056, .425]	Significant association

(Source: Primary Survey, $n = 100$)

A positive correlation is identified between public transport usage frequency and reduction in private vehicle use ($r = 0.683$) and between perceived environmental impact and long-term sustainability perception ($r = 0.441$).

Commuters exhibit consistent agreement that public commuting systems can be a strong viable solution for urban green mobility (mean = 1.48, Standard deviation = 0.76).

This helps conclude that positive attitudes towards sustainable urban transport and usage of public transit can not only reduce usage of private vehicles on a daily basis but also inculcate environmentally positive perceptions and desire for green mobility.

The significant association between infrastructure adequacy and private vehicle reduction ($r = 0.250$, $p = .012$) and between infrastructure adequacy and usage frequency ($r = 0.235$, $p = .018$) both support for the SAFAR framework

Cronbach's alpha for the full five-item scale is $\alpha = 0.653$, falling within the acceptable range for exploratory research, indicating that the five variables collectively measure public transit sustainability effectiveness.

6. Suggestions

Based on key findings interpreted through the SAFAR framework, four recommendations are proposed.

6.1 The NCMC initiative should be accelerated to create seamless multimodal journeys.

6.2 The strong pro-sustainability attitudes among young commuters should be converted into behavioural commitment through targeted awareness campaigns.

6.3 Metro and electric bus networks should be extended to Tier 2 and Tier 3 Indian cities.

6.4 Effective planning and structured public and private partnerships should be pursued to improve long-term operational efficiency

7. Conclusion

This research empirically supports that sustainable public transit in Metropolitan India is working effectively, proven both through government data and user perceptions. Transit usage is significantly associated with private vehicle reduction ($r = 0.683$, $p < 0.001$), and sustainability conviction is greatly linked to long-term sustainability solutions ($r = 0.441$, $p < 0.001$).

The study acknowledges its limitations. The sample ($n = 100$; predominantly aged 18–25, female, and concentrated in Hyderabad and Bengaluru) limits generalisability. The Cronbach's $\alpha = 0.653$ falls below the 0.70 threshold preferred for confirmatory research, however constitutes to exploratory research. The Affordability and Equity dimension is not measured in this primary data and remains a significant gap for future research. Further research should employ larger diversified samples.

The study makes two main contributions to the existing literature. First, it provides complete statistical analysis of commuter perceptions of sustainable transit in an Indian metropolitan context. Second, the SAFAR framework, grounded in the Brundtland Commission's three sustainability pillars, LCA methodology, SERVQUAL, and the Theory of Planned Behaviour offers a four-dimension diagnostic tool for evaluating transit effectiveness across dimensions that existing frameworks address separately. Hence proving that India does not need to be convinced that public transit is its green future. It needs the infrastructure to make that future accessible to everyone.

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UNDERSTANDING THE SPORTS CONTENT INDUSTRY: FROM THE POINT OF MARKETING

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Abstract

The concept of sports marketing has undergone a literal revolution over the last 20 years, shifting to an event-based promotional process to a global, digital, and content-driven business model that combines technology, storytelling, and platforms of consumer interaction virtually. This paper discusses how sports organisations utilize sporting assets, web portals and relationship-marketing as a means to improve on the fan experiences, increase brand awareness and create sustainable revenue sources. It also highlights the growing power of broadcasting rights, social-media platforms, streaming services, and personalised communication tools in determining the contemporary strategies in marketing in the sports milieu. Based on the qualitative and descriptive methodology of research and using secondary data sources, the article is a synthesis of the scholarly literature, industry reports, and the empirical case study aimed at finding trends that are conspicuous in sports marketing today. Those aspects are explored in the analysis: monetisation of sports content, expansion of digital capabilities to reach consumers and psychological antecedents of consumer behaviour: motivation, identity, perception and loyalty.

Introduction

Sports marketing refers to the marketing strategy that enables sports organisations to market events, teams, athletes, and products across the board to meet the consumer needs and attain commercial goals. In the past, sports marketing used to be heavily dependent on sport sponsorships, ticket purchases, merchandising, and broadcast advertisements as a source of revenue. The sporting events in this previous model were used as the major promotional tools and the communication was one way with the organisations publishing directing the audiences through television, print, and outdoor media.

Although, the booming impact of digital technology and globalisation has radically altered this context, and sports marketing has become an interactive and content-driven business. In the present-day sports organisations are working in a world where fans demand constant interaction and not event-based interaction. Social media, streaming, and mobile technologies allow communicating in real-time, which allows consumers to reach the teams, athletes, and other fans regardless of geographical boundaries.

This has increased the boundaries of sports marketing past match days to include the year-round relationship development. This has meant that the sports properties are currently revolving around designing immersive experiences, individualised communication, and emotional storytelling as a means of

developing long-term loyalty as opposed to short-term transactions. This change is manifested by the growing commercial worth of sports.

Through media rights, sponsorship and e-collaborations, major world events and leagues receive multibillion-dollar investments. The broadcasting deals, streaming sources on the Internet, and the content formats of highlights prove that even the sports content has turned into a valuable asset. Furthermore, organisations are resorting to use technological solutions like artificial intelligence, virtual reality, and data analytics more frequently to be able to comprehend the behaviour of fans better and adjust their marketing efforts to suit them.

This has brought about relationship marketing where fan retention became a priority, membership schemes and personalised experientials. Through behavioural understanding and online experiences, sports organisations are looking to create emotional relationships and build relationships through their brands. Their product is an indication that the promotion is no longer the end-point of sports marketing; it is a business strategy that involves content-making, online communication, and internationalisation. It is within this context that the current research is interrogative of the digital and global ecosystem that sports marketing has been altered and assesses the effects of the sports content, engagement strategies, and psychological determinants on consumer behaviour as well as brand performance within the contemporary sports industry.

Review of Literature

Sports marketing conceptualisation has been an aspect of dramatic changes in the course of the years, determining various meaning and definitions in academia and practice. Previous views put sports marketing as the main source of promotion of sporting events and other subsidiary revenue collected through ticket purchase and sponsorship. Modern authors argue that sports marketing has become an increased strategic framework that incorporates branding, content development, fan contact, and worldwide commercialisation.

The lack of a single, universally recognised definition indicates the fluidity, as well as the fast diversification of the discipline. It is the literature that encourages a shift to integrated business models rather than events-based promotion where sports organisations are global businesses and run media rights, merchandising, partnerships, and digital ecosystems. The models of multi-club ownership and global league are a good example of international strategies of obtaining resources, developing talents, and cross-branding activities, which protect performance on the field and in the commercial arena. This critical shift shows that sports marketing has dropped being a localized activity and becomes a network of the planet. At the same time, the literature is full of signs of the rapidly expanding importance of sports content as a marketing product.

Figure 1. Data Bridge Market Research



Source: AI Compiled

One of the main sources of revenue of sport properties is broadcasting rights, which can explain the ability of both live and recorded sporting content to be monetised. Digital streaming services and social-media platforms, which allow viewers to view games, highlights, and behind-the-scenes content in real time, have enhanced this trend. Experimental research shows a trend in favor of shorter/interactive content patterns that are better suited to recent trends in short attention and mobile use patterns. Therefore, stadiums and teams have refocused on highlight reels, biographical narrative, and promotional activities directed by an influencer.

Storytelling has become a powerful marketing tool in the sporting industry. Organisations no longer focus on performance but look forward to stories that depict the personal encounters, misfortunes and success of the athletes. This person-centric channel of connection increases the emotional attachment and solidarity to groups and athletes. Researchers affirm that the increased emotional engagement increases depth of brand loyalty and triggers consumer repeat purchase behavior of sporting related products and services.

The engagement and relationship marketing are among the key themes of the literature available. According to Bee and Kahle (2006), fan relations with organisations are long-term relations that are more valuable than a transactional relationship. As loyalty programmes, membership benefits and personalised experiences have been identified as commitment-reinforcing strategies. Individualised communication on a data basis helps organisations to send personalised offers, content and stay updated on new information, raising satisfaction and retention.

These are the practices that are being applied in plastic surgery according to the contemporary consumer concerns of individualised treatment. Psychological aspects are also identified as essential prediction factors of sports consumption behaviour. Motivation, identity, perception and social belonging are some of the factors that determine how people associate with sports brands. Fans often see their affiliation with teams as a part of their self-identity which creates a high level of emotional attachment and stable buying habits. Attitudes and preferences are also developed further in the course of learning which involves exposure to the media and interaction with peers.

These observations mean that effective sports marketing communications should consider both logical and emotional motivations. These trends have been intensified through digitalisation as it offers interactive platforms enabling organisations and fans to engage directly with each other. The social media facilitates feedback in real-time, formation of community and user-generated content thus changing the passive audience to active participants. Empirical research shows that the digital presence increases brand presence and expands reach to the global market, which enables even less significant organisations to reach audiences globally.

The commercial growth in sports marketing has been strengthened by globalisation. International broadcasting, sponsorship and merchandise sale helps the sports brands to perform across the borders. However, scholars observe that effective globalisation would demand that it adjusts to the local cultures and tastes in the market. Striking a balance between international consistency and local relevance is one of the critical strategic issues. Altogether, the literature shows that sports marketing has been developed as a promotional practice to a complex discipline which combines content, technology, psychology and relationship management to generate sustainable competitive advantage.

Research Objectives

The main aim of the study is to analyse how sports marketing has evolved into global, digital and content based industry model that is no longer event based promotional activities. The given study directly attempts to examine the role of sports content and digital media (such as broadcasting, social media, streaming, and approaches to storytelling) as strategic assets to expand fan engagement, strengthen the brand presence, and bring in revenue. The research is also expected to determine how personalised communication, relationship marketing strategies and psychological factors like motivation, perceptions and loyalty affect consumer behaviour in sports. By using these aims, the study is aimed at giving a broad description of how modern sports organisations are developing sustainable competitive advantages and long-term relationships with fans in a more digital market environment.

Research Methodology

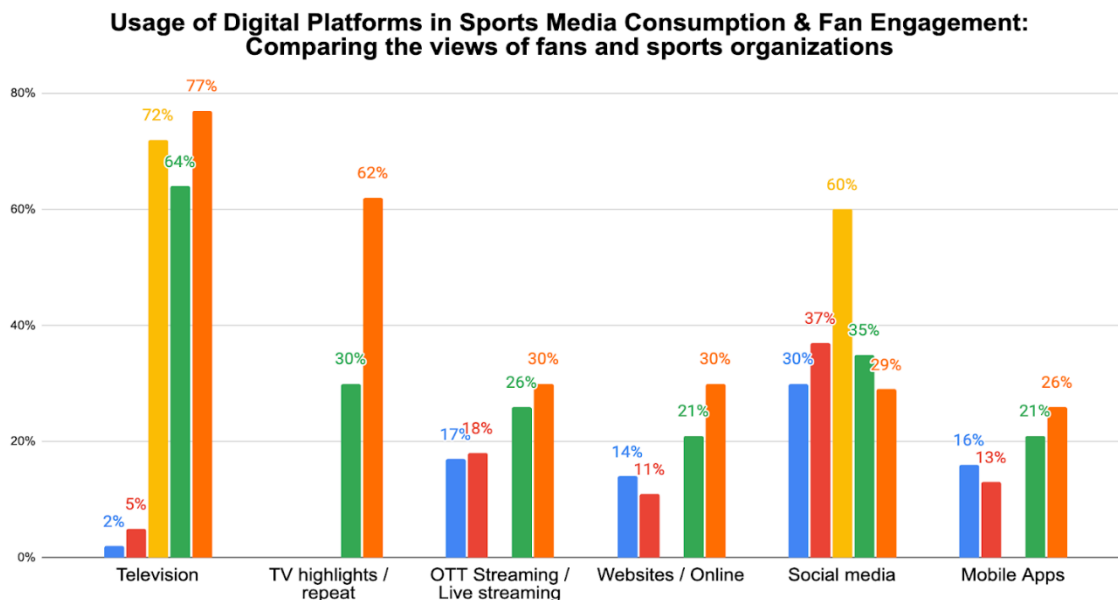
This paper will assume a descriptive and exploratory research design to examine the development of sports marketing, as well as, to learn how digital content, fan engagement strategies and relationship-oriented approaches affect consumer behaviour and brand performance. Due to the wide and industry-level nature of the research objectives, a qualitative-dominant approach to research was deemed the most suitable to use since it provides a more in-depth look at the patterns, strategies and practices of interest as opposed to a quantitative outcome of numerical measurement. The study mostly uses secondary data. Relevant information was collected through systematic review of peer-reviewed journal articles, scholarly books, industry reports, league publications, media analysis and official statistics. These materials shed light on the evolution of sport marketing in the past, emergence of digital source, monetisation of sports content and emergent tendencies in fan activity and globalisation. The secondary data were chosen due to full coverage of the international markets and the set of cases that have well-grounded case studies that would otherwise be hard to extract using the primary data collection methods given the restricted amount of time and resources. The interpretation of the information collected was done using a thematic analysis technique. The literature was divided by major themes that served the purpose of the study, and these are development of sports marketing practice, the influence of sports content and broadcasting rights, the digital transformation and social media activity, relationship marketing and consumer loyalty strategies, psychological aspects of consumer behaviour and sports globalisation. Each theme was examined in order

to determine some recurrent patterns, similarities and differences between studies. Qualitative synthesis enables the research to combine divergent views and merge theoretical frameworks with some empirical exemplars. The results that were obtained after consulting a variety of sources also give the study superior reliability and credibility. Even though use of primary data will make it possible to quantify the given results, the chosen methodology provides a comprehensive and abstract overview of the sports marketing landscape. Altogether, this strategy will help to make a full evaluation of modern methods of sports marketing and their consequences on fan participation and organisational performance. Overall, the methodological plan adopted allows conducting a stringent analysis of the modern sports marketing practices and sheds light on their implications to the fan experience and the institutional success.

Analysis and Interpretation of Data

The secondary sources state that there is a rapid and constant upsurge in the sports industry that has been attributed to digital revolution, monetization of content, and consumer interest. Sports marketing has since transformed into a type of an ecosystem that consists of media, technology and relational management thus going beyond event promotion to the full extent of being integrated. These changes are realized through increasing levels of commercial value over athletic assets, growth of digital tools of engagement and expansion of revenue streams. Among the main results is the increased consumption of sports content, which is digital. The fans are more and more inclined to watch matches, highlights, interviews, and behind-the-scenes content via mobile networks and streaming platforms instead of traditional television channels. This movement represents larger alterations in the media consumption patterns, where convenience, customization, and on demand is being favoured.

Figure 2: Usage of Digital Platforms in Sports Media Consumption and Fan Engagement



Source: Self

Online platforms allow companies to disseminate content to customers all around the world at a lower cost and at the same time gather useful behavioural information. These types of data allow more precise marketing approaches, thus, increasing the rate of engagement and conversion. The broadcasting and streaming rights sale shows the economic value of the sport content. The media rights have now become a

significant part of the leagues and tournaments, and one can visualize how content itself has become a product, no longer a promotion tool. The strategic value of the live sports as a source of subscriptions and advertising income is highlighted by the competition between the digital platforms and the broadcasters on the one hand, and exclusive rights on the other. This tendency proves that the marketing of sports is becoming more and more content ownership/content distribution related.

The measures of fan engagement also show that the process of digital interaction has reinforced the relations between sports organizations and audiences. Social media sites enhance one-on-one communication, which via provides teams with an opportunity to keep their stakeholders informed, engage feedback and provide interactive experiences. Such features as live chats, polls, competitions, and exclusive releases engage fans as active as opposed to passive contributors. This ongoing engagement creates a feeling of community and belongingness hence a sense of loyalty and repeat consumption is created. Another advantage is connected with the effectiveness of targeted communication; companies that use data analytics to create specific messages, promotions, and experiences achieve a better satisfaction and retention rates of customers. Shopping deals, loyalty programs and personalized messages provide a sense of perceived value and emotional attachments and persuade dedicated following of their favorite teams. The above practices are consistent with relationship-marketing theories that emphasize on retention instead of acquisition.

The psychological needs are important to consumer behavior. Sports affiliation will no longer only be a hobby, the fans will strongly associate themselves with their team and this emotional attachment will drive the buying attitude towards the merchandise, subscriptions and attendance of their events. Such decisions are also encouraged by entertainment, socialization and escapism. Marketing strategies that focus on these emotional needs instead of strategies involving use of information only are more beneficial. Another trend which has been found during the analysis is the globalization. Broadcasting and sponsorship and the sale of merchandise have seen sports brands reach international market. The online technologies reduce the geographical boundaries, which allows organizations to access many people worldwide. However, statistics show that successful growth means cultural adjustment. Respectful campaigns that are mindful of local values and preferences are better in efficacy and efficiency than global campaigns. Nevertheless, these improvements still have some flaws; the process of activation related to sponsorship remains uneven, which makes partnership investment a risk to less profitability. Besides, unequal diversity and inclusion practices can restrict the audience and credibility of a brand. Another issue that makes coordination in markets difficult is the lack of standardized global frameworks. In general, the results indicate that digitalisation, content strategy, and relationship management are all tightly correlated with the development of sports marketing. Companies that make good use of these aspects are in a better position to attain sustainable competitive advantages.

Suggestions

In order to overcome the specified challenges, sports organisations need to focus on enhancing the sponsorship activation strategies by making sure that partnerships are cohesively combined in the digital, physical, and experiential platforms. To create optimal mutual value offering to sponsors, measurable engagement opportunities over mere logo placements need to be offered. Also, more coherent and standardised global marketing structure would be able to improve coordination in international markets so that it can standardise the branding, but local customisation is still permitted. More focus on the policy of diversity and inclusion in marketing communications and organizational practices is justified. Athletes, fan

segments, and various communities are the areas that can be represented in order to increase the audience appeal and brand authenticity. In addition, the creation of advanced digital infrastructure, data analytics, and targeted communication infrastructures enhance the relationships with the fans and retention over the long term. Once these improvements are made by sports organizations effective use of sponsorship, balanced global strategy, complete representation, and increased digital involvement the existing limitations can be overcome, and the sport marketing industry will have significant opportunities of growth.

Conclusion

By the end of the paper, it can be concluded that the sports marketing sector is growing at an impressive pace due to the digital technologies, content strategy, and global networks that redefine the ways in which organisations engage with their fans and make money. The transition to interactive and relationship-based promotion as opposed to the traditional promotion based on events has reinforced and provided a new commercial opportunity. Nevertheless, there are still a few problems, such as the lack of efficient sponsorship activation, the deficit of cohesive global marketing system, and lack of diversity and inclusion of marketing practices. To maintain long-term growth and competitiveness these challenges have to be addressed. Sports organisations can maximise their value of the brand, as well as fan loyalty, through greater integration of sponsorships, standardised but flexible global strategies and inclusive representation. The industry is among the swiftest-growing sectors in the world with massive prospects of further growth in the future despite the prevailing constraints. Further development and innovation aspects should be considered as crucial towards ensuring that sports marketing continues to operate within the desired direction and achieve valuable fan experiences, thus contributing to sustainable business performance.

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