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AIMT journal is proud to feature an advisory board of renowned academicians from national and international institutions, ensuring diverse perspectives on the latest trends and innovations. Collaboration with experts enhances the quality and relevance of the journal's content. I extend my deepest gratitude to our editorial board, reviewers, and authors for their dedication. Their collective efforts ensure the AIMT Journal of Management remains a beacon of scholarly excellence and a trusted source of knowledge.

With an aim to continue improvement, we welcome any suggestions for our valued forthcoming issues. The editorial team joins me in wishing you all a Happy Reading!!!.

Air Commodore (Dr) J.K. Sahu (Retd)
Director, AIMT

CONTENTS

Enhancing Project Controls Effectiveness: The Role of Project Controls Team in Driving Project Success

Sagar Gaur*
Prof. Milind D Jagtap**

ABSTRACT: The study uses linear regression analysis and the results show a substantial difference when traditional project controls are implemented along with the project controls team. These results are supported by statistical analysis which shows that adding a project controls team significantly improved project performance (with significance value less than 0.05). This highlights how crucial project controls teams are in implementing project controls tools, techniques & procedures and for successful project completion. The study highlights the necessity of giving project controls teams top priority along with the integration of project controls tools & techniques (i.e. Change management control, risk management control, contracts management control, budgetary control, time control, communication control, key milestones control) within frameworks for project management to maximize results. Organizations will navigate through problems more efficiently, be able to reduce risks & implement risk mitigations, and achieve better project outcomes by deploying the project controls teams and by using their project management expertise.

Keywords: Project Management; Project Controls; Project Controls Team; Regression analysis; Construction

INTRODUCTION

The Infrastructure and Project Monitoring Division (IPMD) reported that in July 2023, 809 projects had delays, and 213 projects were behind schedule despite being given extensions. Further, a total of 388 projects also experienced cost overruns. The cumulative cost increase of the 809 projects that experienced delays amounted to around Rs 4.65 lakh crore. (Khan, 2023)

The major reason for the delays on the project as stated by various authors is no proper implementation of project controls. As stated by (Veera, 2017), major delay factors involve non-management of Change orders, Unilateral contract terms and lack of fairness in contract management, Inexperienced project team, Ineffective project planning and scheduling, Poor communication management, Insufficient project management support and so on. Further, as per (Whittaker, 1999) the most important takeaway for his research was that poor risk management was the leading cause of project failure. Failure to possess necessary team skills and an absence of control also played a role.

As highlighted by (Odeh & Battaineh, 2002) in their research, among the top ten most significant causes of delay according to the findings were owner interference, insufficient constructor expertise, financing and payments, labor productivity, sluggish decision-making, ineffective planning, and subcontractors.

Achieving the project's goals with minimal setbacks is the aim of project controls. It is based on keeping an eye out, systematically evaluating performance, finding variations, implementing actions to fix or prevent problems, and managing change. (Montes-Guerra, Gimena, Pérez-Ezcurdia, & Díez-Silva, 2014). Olawale &

Sun (2010) explained the issue revolves around Project Controls and identified the most common tool is time and cost control supported by various software packages. The primary impediments to time and cost management in construction practice are the following five factors:

1. Inaccurate calculation of project duration.

2. Risks and uncertainties.

3. Design changes.

4. Non-performance of subcontractors

5. Complexity of works

Atout, (2018) highlights that effective project monitoring and controlling is the one of the most crucial project control tools that project managers should adopt to track, monitor the project and for taking remedial actions as and when required in response to schedule delays. Effective project management, encompassing schedule, cost, and quality control, is crucial for ensuring project success and requires the full support of the entire project team. Finding and analysing potential risks to a project's success is an effective control tool used in the software business to lower the rate of project failure, according to another study (Schmit, Lyytinen, Keil, & Cule, 2001)
 The detailed work programme (DWP) is the foundation for effective time, budget, resource, and monitoring control in a project. It serves as a roadmap, outlining tasks and milestones for structured project execution. Time control involves comparing actual progress with scheduled milestones for timely completion. Budget control monitors actual expenditures against allocated budgets, preventing cost overruns. Resource control optimizes resource allocation, while monitoring control assesses project performance against benchmarks outlined in the DWP (Wilson, 2014). According to (Jaafari, 2001) focused on risk management, risk variables & their importance and argued that it should form a core function of project management. Identifying and controlling immediate risks to a project is crucial to completing it within budget, time, and perceived parameters (Datta & Mukherjee, 2001).

Al-Jibour, (2003) reports about the effectiveness of monitoring systems and discusses various monitoring techniques along with their use for project controls. Author states following five steps for project monitoring and control:

1. Prepare a plan.

2. Implement the plan.

3. Monitoring the actual progress.

4. Report the variances between planned and actual.

5. Take corrective action.

Gaur (2022) discussed various delay factors like insufficient project planning, Cost & Schedule underestimation, Poor communication plan, no risk management plan and so on. The author further discussed how deployment of Project Planner can increase the effectiveness of overall project planning and scheduling.

Despite a lot of hue and cry being created around project management and the critical role played by project controls, there is still a significant research gap in completely understanding the complexities and delicacies of deploying the project controls team. While numerous studies have shown the importance of project controls in improving project performance, there has been little dedicated study into how the inclusion of a specialized project controls team affects the project outcomes and its efficacies in project management.

OBJECTIVES OF THE STUDY
 The following research objectives are framed:

1) To identify the importance of the project controls team while implementing various project controls through literature review.

2) To establish that both Traditional Project Controls & Project Controls Team jointly affect the Project Performance.

LITERATURE REVIEW

Sahar, Ann, & Rashid (2022) study reveals that success with Project Control Systems (PCS) is important for achieving project goals, but it's especially important for staying within project cost budget. The most important of the six PCS factors for meeting project goals was found to be project governance. It turned out that not having standard methods was the biggest problem with good project governance. On the other hand, having skilled and experienced project team members was the biggest help with putting earned value into action. Further the research highlights following factors affect the PCS success:

A) a plan with clear goals and activities to be completed.

B) the project team's ability to keep track of planned tasks.

C) reliability of schedules.

D) lack of skills in planning and scheduling.

Abdullatif & Saud (2021) concluded that the pre-construction phase lacks a well-established framework in construction projects in the Kingdom of Saudi Arabia (KSA). The non-existence of a pre-construction team is a challenge to the management team and supervision consultant. There is an absence of a comprehensive set of management tools and the project management teams (PMT) are not sufficiently proactive. They exhibit a reactive approach, rather than proactive. The PMTs must be both stimulated and motivated, while also being subject to responsibility. Further, it is revealed that without a comprehensive project planning document that clearly outlines and organizes the necessary resources for the successful execution of a project, it is expected that the project will become unmanageable. Deficiencies of management in execution of knowledge management procedures, construction planning, risk management, monitoring and controlling of time, cost, and scope.

Ann & Sahar (2019) examined the elements that contributed to and hindered the installation of project control systems (PCS) on the projects in order to identify the key elements that worked. The study's three main takeaways are as follows: (1) a technically competent project controller; (2) well-defined roles and duties within the project team; and (3) a detailed work breakdown structure. Without consistent processes, ambiguous

contract deliverables, project goals, and deadlines, as well as an owner-contractor control system and an information-sharing gap, successful PCS implementation is highly unlikely. Rozenes, Vitner, & Spraggett (2004) says that Earned Value (EV) is one of the classical project control tools effective to monitor both time and cost at any given time of the project. Further, as per author Work Breakdown Structure (WBS) is another classic project control tool used at the planning stage. Finally, the author developed the Multidimensional Project Controls System (MPCS) which integrates all dimensions of project controls and will help project managers to identify the poor performance areas.

The achievement of project deliverables with the allocated time, cost-effective completion of its projects depends on a competent project management team. A crucial part of the project management team is establishing right project controls. These controls serve as a mechanism to monitor the project performance, ensuring achievement of predefined milestones and facilitating timely interventions by Sr. management to address change of scope in order to optimize the outcomes (Mithileni, 2022).

Ensuring the effective implementation of project controls necessitates the presence of a dedicated project controls team, alongside other essential project controls components. To improve the effectiveness and efficiency of project management processes is to have a dedicated Project Controls Team. This team helps in achieving budgetary control, schedule compliance, risk assessment, contracts management, change management and performance evaluation. The dedicated Project Controls Team is essential for having openness, accountability, and proactive management outlook throughout the project lifecycle. This ensures that projects are successfully completed within the assigned time and cost (Hindarto, 2023).

Project iron triangle i.e. cost, scope and time will be efficiently managed when organizations deploy specialized teams to implement & supervise project controls. To ensure that the decisions are based on actual site progress; insights into the project progress are provided in a timely manner; any deviations from the planned activities are identified and appropriate remedial actions are taken for that, a dedicated Project Controls Team is crucial (Merrow & Nandurdikar, 2018). Farhad, Ann, & Sahar (2018) aimed to determine what factors may facilitate or impede the successful implementation of PCS and rank them in order of importance. Data from Saudi chemical and petroleum firms was collected, evaluated, and analyzed using a multicriteria model. It identifies nine enablers and fifteen barriers critical to PCS implementation success. The study highlights the need for knowledgeable project team members and precise role descriptions as essential facilitators, whereas important obstacles include a lack of scheduling and controlling expertise, mistrust of the management system, and different control systems between owners and contractors. Further two challenges that have come to light are unclear contract deliverables and incompatible control systems between the contractor and owner. These results emphasize that for smooth PCS implementation below three things are necessary including assembling a competent team with clearly defined roles, developing a dependable and trustworthy framework for controls and getting the owner and contractor to agree on the same control systems and contract deliverables.

Saud & Abdullatif (2020) look into how bad management affects the success of Saudi Arabian construction projects. It brings up the fact that more than two-thirds of public building projects in the Kingdom are over budget and take more than twice the time as originally planned. Two case studies are used to look into why big delays and deviations from the planned works. Some of these reasons are bad construction management and taking too long to put ideas into action. According to the study, planning and management problems can be avoided by being strategic and setting up an early project management office. Additionally, it highlights that a proactive management team must be established early in the project process in order to ensure successful project performance. By avoiding mistakes in project planning and project management, this strategy seeks to increase the probability that a project will succeed.

Research Model
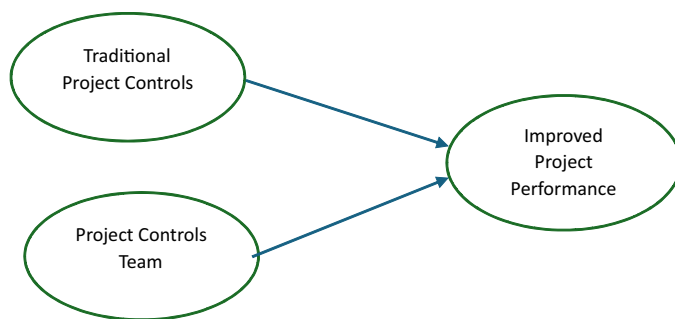
Figure 1: Research Model. Source: Author

RESEARCH METHODOLOGY

Research methodology refers to an analytical approach to research problems. It might be considered a study of scientific research methodologies. The study used a quantitative method. A quantitative analysis was conducted to determine the influence of project controls on project management effectiveness, with data collected via surveys or questionnaires issued to project managers and team members participating in various projects. This quantitative phase will enable statistical analysis to identify the influence and distinction between the presence and absence of a specialized project control team on project success measures. The complete approach gave a holistic knowledge of the function of project controls and its relevance in project management, specifically stressing the efficacy of a specialized project controls team. Responses were collected from industry experts comprising Engineers, Senior Engineers, Managers, Senior Managers, Project Managers, Project Directors, Planning Managers, and Document Controllers. They all have more than 10 years of experience working in the construction industry mainly in infrastructure projects and completed at least two projects.

Hypothesis:

The hypothesis is formulated based on the identified research gap and objectives:

H_0: All the independent variable (Traditional Project Controls & Project Controls Team) jointly does not affect the dependent variable (Project Performance)

H_1: All the independent variable (Traditional Project Controls & Project Controls Team) jointly affects the dependent variable (Project Performance)

Data Collection

Data was collected through a dual-phase method. In the first part, respondents requested to provide their basic information such as job title, total years of experience, and number of completed projects. In part two, participants were asked to respond about the project performance based on six criteria: 1) Risk Management Control; 2) Planning and Scheduling; 3) Contracts Management Control; 4) Project Communication Control; 5) Change Management Control; and 6) Key Deliverables Control. Participants' responses were collected using a seven-point Likert scale. The participants were carefully selected professionals who served in different roles such as project directors, project managers or project team members. This approach enabled a thorough

understanding of how project controls teams contribute to project performance by gathering input from experienced industry experts.

DATA ANALYSIS

The data is analysed using statistics that are both descriptive and inferential. Using SPSS, regression analysis was conducted to compare the mean effectiveness scores of Traditional project controls working without project controls team and along with project controls team. In addition, the reliability was examined using Cronbach's alpha to confirm internal consistency of the responses.

Test of Normality

Skewness between -0.5 to +0.5 and Kurtosis between -2 and +2 makes the data symmetrical and acceptable and proves that the data is normal univariate distributed (Macgillivray, 2008).

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
TPControl	94	3.20	5.60	4.1234	.46105	.358	.249	.926	.493
PCTeams	94	3.20	5.60	4.3787	.57583	.181	.249	-.055	.493
PPerf	94	4.60	6.60	5.6106	.43638	.159	.249	-.041	.493
Valid N (listwise)	94								

Figure 2: Descriptive Statistics

Reliability Testing

A reliability test using Cronbach's alpha assesses the internal consistency of a scale or measure by analysing the correlations among its items. It measures how closely related a set of items are as a group, indicating the extent to which they consistently measure the same underlying construct or concept. This statistical method calculates a coefficient ranging from 0 to 1, with alpha value more than 0.70 shows reliable data (Hair, 2013).

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.735	.731	3

Figure 3: Cronbach's Alpha Reliability test

Model Testing

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935[a]	.874	.871	.15670

a. Predictors: (Constant), PCTeams, TPControl

Figure 4: Model Summary

The adjusted R2 is 0.871 which shows that the model explains the 87.1% variance happening in the dependent variable.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.475	2	7.737	315.106	<.001[b]
	Residual	2.235	91	.025		
	Total	17.709	93			

a. Dependent Variable: PPerf

b. Predictors: (Constant), PCTeams, TPControl

Figure 5: Hypothesis testing using ANOVA test

Here, we can see that the p value is less than 0.05. Hence, we can reject the null hypothesis and accept the alternative hypothesis (Okoye, 2024).

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.	Collinearity Statistics Tolerance	VIF
1	(Constant)	2.853	.168		16.987	<.001		
	TPControl	-.107	.037	-.113	-2.875	.005	.904	1.106
	PCTeams	.730	.030	.964	24.603	<.001	.904	1.106

a. Dependent Variable: PPerf

Figure 6: Coefficient and Significance Value

Here, we can see that the p value is less than 0.05. Hence, we can say that all the independent variables individually affect the dependent variable (Pal, 2019).

FINDINGS

The above study suggests that the presence of a project controls team has a substantial impact (i.e. 0.730) on project performance. The p-value, also known as the significance value, is less than 0.05, demonstrating a notable disparity in the efficacy of project controls when implemented alongside the project controls team, indicating that the presence of a project controls team leads to a substantial enhancement. The alternative hypothesis is accepted, while the null hypothesis is rejected.

CONCLUSION

Project controls are essential for effective project management since they establish the procedures for overseeing, assessing, and modifying project performance. This study emphasizes the significance of a project controls team in accomplishing the desired results from project controls within the established timelines and within the allocated project cost. A skilled project control team lets project managers quickly spot risks and issues, so they can take the right steps to reduce the risks and keep the project moving forward as planned.

The objective of this study is to highlight the importance of the Project Controls team in effectively implementing project controls for positive project outcome. However, it is crucial to recognize the constraints of the study such as potential biases in sample selection or the specific research setting, which could mean that the results can't be used in other projects. Conducting additional study which includes larger samples, various organizations and several industries would give a more comprehensive understanding of how a dedicated project controls team function and its effect on project controls & project performance.

IMPLICATIONS OF THE STUDY AND FUTURE SCOPE OF STUDY

Through deploying a skilled project management team and adopting effective project controls, organizations may reduce project risks, maximize resource utilization and improve project performance. The importance of a Project Controls Team in achieving project success is emphasized. By assigning a specialist project controls team collaboration across different functions increases, enhances openness and promises alignment among all parties involved. This collaborative method enables well informed decision making through timely interventions by senior management, proactive risk management by preparing risk registers, thus improving project performance and reinforcing that the project will complete within assigned time and cost.

Project management and project controls now have started receiving significant attention but still there is a significant research gap in completely understanding the complexities and nuances of project controls teams, as well as their precise impact on project management. Although several studies have emphasized the significance of project controls in improving project performance, there has been limited research specifically focused on the influence of integrating a specialized project controls team on this usefulness.

The study indicates that there is a favourable correlation between the presence of a specialist project controls team and the effectiveness of project controls. However, there is a lack of empirical data that specifically analyses the impacts and intricacies of these teams on project performance indicators. By addressing this gap, we can gain a better understanding of the diverse benefits and difficulties related to implementing dedicated project controls teams on projects. This will offer significant updates to the existing body of knowledge for project management. Continuous investigation into this research area has potential for deeper understanding of project controls, project control teams and its impact on optimizing project management methods in actual project settings.

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A Guiding Map on How To Manage Implementation of Innovation Projects In Industry 5.0

*Saurav Kumar***

ABSTRACT

Broadly speaking, innovation can be incremental, breakthrough, or disruptive. Incremental: In an era where businesses are required to constantly reinvent themselves, incremental innovation helps them thrive by constantly improving current products, services, processes, or methods. In the conditions of a dynamic business environment and a constant struggle for survival in the market, innovation becomes the basic factor of the growth and development of an enterprise. In the modern business environment, characterized by rapid technological advancements and globalization, abetted by the IoT and Industry 5.0 phenomenon, innovation is indispensable for competitive advantage and economic growth. However, many organizations are facing problems in tackling innovation management in the current era of Industry 5.0 due to the rise of new environmental factors in business. The present study aims to present a guiding map on how to manage the implementation of innovation projects in industries in the Era of the Internet of Things (IoT) and Industry 5.0.

Keywords: *Innovation Management, key factors for success of innovation, Pearson's map, Innovative projects implementation.*

INTRODUCTION

A good business idea, continuous coordination and integration, and application of modern technical and technological knowledge, skills, and experience represent the basis on which innovation is implemented and on which it achieves desired market effects. An appropriate innovation strategy, which complies with the enterprise's corporate goals, allows the enterprise to decide which type of innovation it wants to develop. Current practice shows that fast innovators, who through innovations conquer new markets, while retaining the existing ones, have an advantage. Based on a detailed evaluation of the extent and nature of change that innovation brings, enterprises can opt to develop and implement radical and/or incremental innovation. Incremental innovations are seen as small improvements that can be illustrated as solving problems where the goal itself is clear or recognizable. In contrast, the results of radical innovations are brand new products/processes, where the direction of research is known, but the outcome is unknown (Henderson & Clark, 1990). The new state of society, often referred to as the knowledge society, rests on the possibilities and abilities to create new knowledge and transform it into economic value and wealth through innovation of products, services, and processes. In such a society, innovations become the most important source of market success and sustainable competitive advantage. The term innovation was first coined by the "Father of innovation", Joseph, A Schumpeter (1934), in his famous book The Theory of Economic Development, where he defines innovation as "the commercial or industrial application of something new—a new product, process, or method of production; a new market or source of supply; a new form of commercial, business, or financial organization". Since then, innovation has become the most important element of any organization's success. According to the Oslo Manual, another important feature of innovation is implementation, i.e., "A common feature of innovation is that it must have been implemented.

A new or improved product is implemented when it is introduced in the market. New processes, marketing

***Senior Faculty, Corporate Secretaryship Department, K.B Womens College, Hazaribag, Jharkhand, India,*
saurav1980kumar@gmail.com

methods, or organizational methods are implemented when they are brought into actual use in the firm's operations" (OECD, Gault 2018). It is an empirical fact that innovation is very important for business, sustainability, growth, and prosperity, however, little has been done in business and policy communities to draw any systematic analysis to improve the overall innovation climate and make the implement-ability of the concept easier. Moreover, Joe Tidd (2006) has reviewed the most popular models of innovation, e.g., technological innovation (Joe 2006), organizational innovation (Isaksen et. al 2007), and then tried to synthesize and synergize commercial, organizational, and technological aspects of innovation (Tidd et. al 2005). Joe Tidd (2006) also highlighted another important factor, i.e., the problems and consequences if we fail to understand the concept and process of innovation management completely, as this will pose difficulties in its implementation. According to him, a mental model, i.e., how we frame problems associated with innovation is of the utmost importance for the proper implementation of the concept: if we fail to frame the problem accurately, it may lead us to a partial understanding of innovation. Most of the time, innovation takes place within a clearly defined set of rules that we can clearly understand and mostly involves players who try to innovate by doing what they do but in a better way (Joe Tidd;2006). Usually, we have a certain set of "rules of the game" under which innovation takes place, however, sometimes these rules of the game change, and unleash hidden opportunities and challenges to existing players. According to Joe Tidd (2006), this is the main concept behind the "Creative destruction" theory of economic development presented by Joseph A. Schumpeter (1934). Joe Tidd terms these changes in the rules of the game as discontinuities. With the increasing advent of interconnected devices, sensors, and objects, substantial challenges have also emerged concerning innovation management (Rizzo; 2016). To make the management of these IoTs simple and ensure their seamless integration into the business process, a new type of innovation management framework is required. Vitali et. al (2017) further stated that technological advancements and the business applications of IoT are rapidly increasing, hence necessitating human/user-centered, technically feasible, financially viable, and marketable products that can create value for both customers and entrepreneurs. Thus, now the focus is not just on innovation, but also on the implementation of innovation. Innovation will be implemented only through human/user-centered financially viable and marketable products. Moreover, Walch and Karagiannis (2019) concluded that, with the emergence of IoT and Industry 5.0 concepts, the proper alignment of enterprise model (business model) and information systems, together with the alignment of physical and cyberspace, is very important for making innovation implementable. Fauquex et. al (2015) also stated that IoT devices and products should be "people-aware" and should be driven by user needs instead of technological advancements, and design thinking mindsets, processes, tools, and techniques are crucial for what they called "people-aware" IoT applications and products. The use-ability of design thinking for implementable innovation was also endorsed by (Taratukhin, V.; Yadgarova, Y.; Becker, J.; 2018). According to Ozkeser (2018), the main difference between Industry 4.0 and Industry 5.0 is increased human-machine interaction that empowers people to express themselves in the form of personalized products and services. Industry 5.0 is providing customers with more customized products and services than ever before and this can only be possible with the increased engagement of humans in designing products and services. He believed that due to increased human-machine interaction and more emphasis on human/user-centered products, Industry 4.0 is gradually giving space to Industry 5.0 as time passes. Although businesses are still trying to cope with the challenges of Industry 4.0, due to very rapid technological advancements in the field of IoT and information technology, the next industrial revolution, i.e., Industry 5.0, is already knocking at the door (Paschek et. al 2019). Although it's still a little early to say exactly how Industry 5.0 will disrupt existing business models, one thing is certain: Industry 5.0 will break down any barriers between the real world and the virtual world. Daniel Paschek, Anca Mocan, and Anca Draghici (2019) further added that, "People have different opinions when it comes to predicting the start of Industry 5.0, but if you consider the speed of transformation of technology, I believe it's going to be here sooner than most people think. The future is shaping now and we need to rise to the challenges if we are to thrive in the next revolution". The European Economic and Social Committee (EESC) (see reference) describes

Industry 5.0 as "focused on combining human beings' creativity and craftsmanship with the speed, productivity, and consistency of robots". *The present study aims to present a guiding map on how to manage the implementation of innovation projects in industries in the Era of the Internet of Things (IoT) and Industry 5.0.*

Innovation in Business

Innovation, the process of bringing new products and services to market, is one of the most important issues in business research today. Innovation is responsible for raising the quality and lowering the prices of products and services that have dramatically improved consumers' lives. By finding new solutions to problems, innovation destroys existing markets, transforms old ones, or creates new ones. It can bring down giant incumbents while propelling small outsiders into dominant positions. Without innovation, incumbents slowly lose both sales and profitability as competitors innovate past them. Innovation provides an important basis by which world economies compete in the global marketplace. Innovation is a broad topic, and a variety of disciplines address various aspects of innovation, including marketing, quality management, operations management, technology management, organizational behavior, product development, strategic management, and economics. Research on innovation has proceeded in many academic fields with incomplete links across those fields.

Importance of Business Innovation

In the workplace, innovation is critical because it gives businesses an advantage in accessing markets faster and providing a stronger link to new markets, which may lead to more prospects, particularly in developed nations. With the help of innovation, original ideas may be produced, giving the inventor a proactive, confident attitude toward taking risks and getting things done (Henderson, T.; 2018). A company with an imaginative culture will grow rapidly, even though the creative process isn't always easy. Although tried-and-true techniques are trustworthy, it is good to experiment with new ideas (Henderson, T.; 2018). The phrase "adapt or die" is a universal truth for businesses to achieve success in this era. From a survey conducted by The Boston Consulting Group, 79% of surveyed executives stated that innovation was one of their top 3 company objectives, which is the highest proportion since the poll began over a decade ago. Firms that consistently rank high in the annual "top 50 most innovative businesses," according to the BCG, all have a common focus on research, technology, and development (Purcell, W.; 2021). These companies continue to expand while staying one step ahead of the competition because they recognize the value of innovation. Business innovation helps a company differentiate itself (Purcell, W.; 2021). At its most fundamental level, innovation means doing something that no one else in your business has done before. The goal of using innovation to produce or update the company's product. For instance, one strategy is to produce or upgrade items until there is nothing else comparable on the market. Delivering value to customers should always be a top priority for a business, but doing so memorably and distinctively might become a significant part of the brand identity and business strategy. Business innovation helps companies to respond to competition and trends (Caprelli, L.; 2020). Innovation can help a company to figure out what opportunities are presently accessible or will be soon. Successful companies not only respond to current consumer wants, but also predict future trends and build ideas, services, or products that can quickly and effectively meet future demand. It's dangerous to expand a business without first learning about competition. Market research may help companies prepare for shifting marketplaces and keep companies from falling behind the competition. By having market research which includes collecting and analyzing the information given by the competitors, helps companies to have an innovation to improve the product and meet customer needs. As trends, technology, and markets change, you'll be able to keep ahead of the competition. Company executives must be able to think creatively and incorporate innovation into their business models to generate business development, stay relevant in changing times, and separate themselves from the competition. This isn't to say that a propensity to innovate is the only need for success: leaders must also have a firm grasp on

how to put that creativity into action.

The Management of Innovative Projects

Innovation projects increasingly represent strategic support and inevitability in the growth and development of an enterprise. Implementation of an idea is realized through an innovation process within one or more innovative projects (related to products and/ or processes). Innovation is both an innovative project and the output of the innovation process (project), thereby innovation consists of two basic elements, the generation (invention) and commercialization (exploitation) of the idea (Trott, 2005). Nowadays there is a pronounced tendency for all innovations to be realized through projects, regardless of the area they are related to, or the size and structure of the organization. Successful management of innovation projects includes a predefined action plan, deadlines for implementation of tasks, so-called milestones, resource planning, etc. Organizations often encounter unexpected difficulties and problems, therefore risking the fulfilment of their goals. In order to avoid these risks, the management process should be broken down into three phases: pre-project management, project development, and post-project management. The pre-project management phase involves the selection and evaluation of the project idea and the very beginning of the project implementation. However, sometimes there is no adequate necessary information and knowledge which can lead to a poor assessment of the idea, capabilities, and capacities of an organization to realize that idea, and etc. The most effective way to avoid this risk is to develop a strategic approach to the process. Development project management phase involves the integration of different capacities and resources. The greatest challenge in this process, especially for organizations that are still in development, is to find a competent team that can establish an appropriate approach to the management process and respond in a professional and efficient manner to the challenges of project implementation. Post-project management phase does not relate to the development of the project itself, but to long-term sustainability and further improvement after the completion of the project. It is crucial to learn from the experience and to have good knowledge of the organization itself (Mandić et al., 2014, p. 21). Measuring the present value of innovative projects is very difficult due to uncertainty and it requires more systematic and professional efforts, and all of these indicate that a significant percentage of organizations cannot fully implement innovative projects (Keegan & Turner, 2002).

The Key Factors for the Success of Innovation

Innovation becomes the fundamental factor for the viability of the enterprise and its further development in a globalized economic environment. In times of global economic crisis, investing in innovation is the best way to overcome it. The environment is volatile and future events are every day more and more uncertain and unpredictable. Therefore, the current environment is characterized by complexity, turbulence, globalization and an overall complex of new features. The discontinuity of the environment prompts organizations to start with large and rapid changes, changes in their view of themselves and their environment, the way of their operations in the environment, and their everyday business. Innovation is successful if it is possible through commercialization to refund the funds invested in its development and make a certain profit. The correct combination of strategy, structure, system, staff, and environment is required for successful innovation (Afuah, 2003). Productivity, which fosters economic progress, comes down to economic growth, and the characteristics of a society are the key factor which drives economic growth through innovation (Castells, 2000) Innovativeness implies building effective mechanisms for the transfer of innovations in the economy and society. Also, the time span between the introduction of innovation and achievement of its full productivity is very important. However, inventions relatively slowly become practical. In order for different inventions to be introduced and spread through the entire economy, factors involved in the production process must be subjected to changes. A significant number of factors determine the success of innovation. Innovative products and processes are key for the survival of the enterprise and its development. Organizational structure needs to

be innovative, but also to enable realization and cultivation of innovation culture, as the dominant component of organizational culture. Organization and innovation culture directly determine the success of innovation, which in turn strongly influences the success of the enterprise. An organization becomes sensitive to the demands and changes in the environment, and hence it is forced to constantly innovate both products and processes. If an organization wants to be innovative, it must learn continuously. The innovatively structured organizations enable innovative activities. They are able to mobilize and support creativity and entrepreneurship, and let their managers take an active role in this process (Quinn, 1985). In highly innovative organizations staff is organized to support innovation. In addition to the changes in the organizational behaviour and culture, innovative organization stimulates technological innovation as a prerequisite for higher technological efficiency and improved business results. All of this implies that there is a direct link between the organizational level, i.e. the degree of organization's innovative development, and the efficiency of new technology in application. Innovative organizations have multiple positive impacts that can be classified into four groups (Saren, 1990): economic factors, social and behavioural factors, information and communication factors, and organizational and management factors. Economic factors encompass the size of the company, the degree of centralization, etc. Social and behavioural factors include the organization's value system, education of employees, organizational behaviour, etc. Information and communication factors relate to the information system, as well as, to connections or communications with scientific institutions, and in general to the knowledge in the environment. Organizational and management factors incorporate a delegation of responsibilities, motivation system, mentoring, career building (Robbins, 1987). There is no doubt that organizational culture affects the functionality and success of the enterprise. It affects strategic decisions, including the decision to innovate. Organizational culture determines the capabilities of the enterprise to adapt to the requirements of the environment. By building an innovative culture, management contributes to the continuous increase in innovation and their realization. Innovative culture in the enterprise is the one that simultaneously supports innovative and creative thinking (Krstić, 2009).

COMPLEXITY AND ISSUES OF INNOVATION MANAGEMENT IN THE ERA OF IoT AND INDUSTRY 5.0

With the increasing advent of interconnected devices, sensors and objects, substantial challenges have also emerged with respect to innovation management (Rizzo, A.; 2016). In order to make the management of these IoTs simple and ensure their seamless integration into the business process, a new type of innovation management framework is required. Vitali, I.; Arquilla, V.; Tolino (2016) further stated that technological advancements and the business applications of IoT are rapidly increasing, hence necessitating human/user-centered, technically feasible, financially viable, and marketable products that can create value for both customers and entrepreneurs. Thus, now the focus is not just on innovation, but also on the implementation of innovation. Innovation will be implemented only through human/user-centered financially viable and marketable products. Moreover, Walch, M.; Karagiannis, D. (2019) concluded that, with the emergence of IoT and Industry 5.0 concepts, the proper alignment of enterprise model (business model) and information systems, together with the alignment of physical and cyberspace, is very important for making innovation implementable. Fauquex, M.; Goyal, S.; Evequoz, F.; Bocchi, Y. (2015) also stated that IoT devices and products should be "people-aware" and should be driven by user needs instead of technological advancements, and design thinking mindsets, processes, tools, and techniques are crucial for what they called "people-aware" IoT applications and products. The use-ability of design thinking for implementable innovation was also endorsed by Taratukhin, V.; Yadgarova, Y.; Becker, J. (2018). The concept of Industry 5.0 has also come through different development stages, commonly referred as Industry 1.0 (during the 18th and 19th century, focusing on human physical labor in industry and agriculture), Industry 2.0 (from the end of the 19th century to the 1980s, characterized by electrical and mechanical technological advancements) and Industry 3.0 (from

1980 to 2000, characterized by a shift to digital from analogue, modular products, and reduced product life cycles). Recently exponential development in the field of IoT gave birth to Industry 4.0 (from 2000 to date, characterized by IoT, Big Data, electric vehicles, 3D printing, cloud computing, and artificial intelligence) (Yin, Y.; Stecke, K.E.; Li, D.; 2018). Parallel to Industry 4.0, the concept of Industry 5.0 (from 2016 onward, characterized by a digital smart society, the integration of virtual and physical spaces, IoT, robots, augmented reality, innovation ecosystem, brain–machine interface and human centrality of technology) is also flourishing (Skobelev, P.; Borovik, S.Y. ;2017). According to Ozkeser, B. (2018), the main difference between Industry 4.0 and Industry 5.0 is increased human–machine interaction that empowers people to express themselves in the form of personalized products and services. Industry 5.0 is providing customers with more customized products and services than ever before and this can only be possible with the increased engagement of humans in designing products and services. He believed that, due to increased human–machine interaction and more emphasis on human/user-centered products, Industry 4.0 is gradually giving space to Industry 5.0 as time passes. His summary of different industry revolutions, their period, and characteristics is presented in the Table 1 below.

Table 1. Evolution from Industry 1.0 to Industry 5.0.

Era	Time Period	Characterized By	Explanation
1.0	1780	Mechanization	Industrial production is based on machines powered by water and steam.
2.0	1870	Electrification	Mass production using assembly lines
3.0	1970	Automation	Automation using electronics and computers
3.5	1980	Globalization	Offshoring production to low-cost economies
4.0	Today	Digitalization	Introduction of connected devices, data analytics, and artificial intelligence technologies to automate processes further.
5.0	Future	Personalization	Industry 5.0 is focused on the cooperation between man and machine, as human intelligence works in harmony with cognitive computing, resulting in human/user-centered products and services.

Source: *Ozkeser, B. Lean innovation approach in Industry 5.0*

Although businesses are still trying to cope with the challenges of Industry 4.0, due to very rapid technological advancements in the field of IoT and information technology, the next industrial revolution, i.e., Industry 5.0, is already knocking at the door (Paschek, D.; Mocan, A.; Draghici, A.; 2019). Although it's still a little early to say exactly how Industry 5.0 will disrupt existing business models, one thing is certain: Industry 5.0 will break down any barriers between the real-world and virtual world. Daniel Paschek, Anca Mocan and Anca Draghici (2019) further added that, "People have different opinions when it comes to predicting the start of industry 5.0, but if you consider the speed of transformation of technology, I believe it's going to be here for sooner than most people think. The future is shaping now and we need to rise to the challenges if we are to thrive in the next

revolution". The European Economic and Social Committee (EESC) (www.eesc.europa.eu) describes Industry 5.0 as "focused on combining human beings' creativity and craftsmanship with the speed, productivity, and consistency of robots". The transition from Industry 4.0 to Industry 5.0 will take place with improved and advanced human–machine interactions, and better automation through robots with the creativity and brainpower of humans (Paschek, D.; Mocan, A.; Draghici, A.; 2019). According to Seppo Leminen and MikaWesterlund (2012) a new innovation management framework is required for IoT and Industry 5.0 to work efficiently. They further emphasized that IoT and Industry 5.0 needs an innovation management framework that can strike a balance between business and customer needs and between the level of openness and privacy. In reality, the widespread use and applicability of IoT are giving shape to a new ecosystem, i.e., Industry 5.0. (Nahavandi, S. ; 2019) stated that Industry 5.0 is based on the synergy between human and autonomous machines. He further added that Industry 5.0 is more human-centered as compared to Industry 4.0, as the focus of Industry 4.0 was only to improve the process of increased production; however, Industry 5.0 is more focused on combining human brain power and creativity, keeping sustainability and ambidexterity in mind. Özdemir, V.; Hekim, N. (2018) stated that the IoT revolution is fueling the emergence of Industry 5.0 and these concepts will be intertwined in the near future. He further added that a new innovation management framework, with modern technology and an innovation policy that takes into consideration IoT, artificial intelligence and Big Data and human/user centeredness, is required to reap the maximum possible benefits from Industry 5.0.

THE PEARSON'S MAP AS AN IMPORTANT PART OF INNOVATION

The management of the innovation process implies the attempt to develop the creative potential of a certain organization. Also, it includes finding new ideas and fostering creativity. The main characteristic of managing the innovation process is managing uncertainty. On the one hand, uncertainty comes from the future events which do not follow the course of past events, and, on the other hand, the knowledge about the future is always incomplete. Uncertainty represents "the gap between the amount of information required to execute the task and the amount of information already possessed by the organization" (Galbraith, 1977). Pearson's uncertainty map is a tool for analysing and understanding uncertainty and the innovation process (Pearson, 1991). Pearson matrix presents the nature of uncertainty and the way it changes over time. Actually, the uncertainty framework was a result of a comprehensive analysis of main technological innovations, such as Sony Walkman, 3Ms Post-It-Notes and Pilkington float glass process. The map is based on the two separate dimensions (Figure 1), where the horizontal axis represents the uncertainty about the process (how to accomplish the aim), and the vertical axis represents the uncertainty about the output (what is the eventual goal of the project or activity). Additionally, these axes are split resulting in four fields.

Figure 1. Pearson's uncertainty map
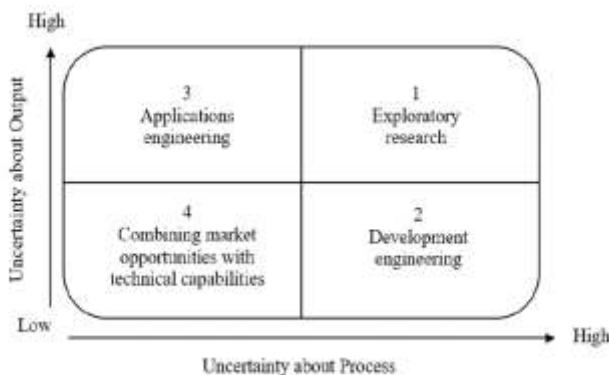
Source: Pearson (1991, p. 22)

Quadrant 1 – involves activities with a high degree of uncertainty about the methods and results. The specifics of this quadrant lies in the fact that the final aim is not clearly defined and there is a problem with the accomplishment of this aim. It is marked as 'blue sky' research, because the work seems far from reality, and potential products and markets are still unknown or 'in the clouds'. This is mostly the field of scientific organizations, which are not exposed to financial and time pressures that are present in the industry.

Quadrant 2 – implies the situation in which the ultimate target is very clearly defined, and hence the business chance may have been noticed, but the way to reach the target is still undetermined. This type of activity is common for development engineering and for enterprises which constantly revise their production process by seeking ways to reduce costs and achieve efficiency.

Quadrant 3 – relates to efforts in detecting how technology can be used more efficiently. There exists a huge uncertainty about the outcome. This section of activity is called applications engineering.

Quadrant 4 – implies a high level of certainty. This field is based on innovative activities which combine market possibilities with technical abilities.

Research Finding 1: *Therefore, the speed of product development is key to the success. This Pearson's map identifies and describes a wide range of organizational characteristics regarding the management of uncertainty in the context of innovation. Hence, it conveys in the very simple way an important message about the very complicated matter of managing uncertainty. Managing the innovation of products and processes is very different. Sometimes, the nature and the type of required products and market are distinctly defined. Contrarily, very little is known about the technology that is being developed and how it can be used.*

PRACTICING SUCCESSFUL IMPLEMENTATION OF INNOVATIVE PROJECTS

Business innovation helps companies to respond to the competition and trends (Caprelli, L.; 2020). Innovation can help a company to figure out what opportunities are presently accessible or will be soon. Successful companies not only respond to current consumer wants, but also predict future trends and build an idea, service, or product that can quickly and effectively meet future demand. It's dangerous to expand a business without first learning about competition. Market research may help companies prepare for shifting marketplaces and keep companies from falling behind the competition. By having market research that includes collecting and analyzing the information given by the competitors, helps companies to have an innovation to improve the product and meet customer needs. As trends, technology, and markets change, you'll be able to keep ahead of the competition.

Company executives must be able to think creatively and incorporate innovation into their business models to generate business development, stay relevant in changing times, and separate themselves from the competition. This isn't to say that a propensity to innovate is the only need for success: leaders must also have a firm grasp on how to put that creativity into action.

Business innovation in organization's sustainability: Apple Inc.

Apple is well-known for its software, hardware, and service advancements. It expanded from 8000 people and $7 billion in sales in 1997, the year Steve Jobs returned to 137000 employees and $ 260 billion in 2019. The organizational architecture and related leadership paradigm, which have played a critical role in the company's innovative success, are far less widely recognized. Steve Jobs laid off the general managers of all the business units (in 1 day), put the entire firm under one P&L, and merged the diverse functional departments of the

business units into one functional organization, believing that traditional management had hindered innovation (Livescault, J.). As entrepreneurial firms grow larger and more complex, business history and organizational theory argue that they must shift from a functional to a worldwide context to align accountability and control and avoid the bottleneck that develops when many choices are funneled up the org chart to the top. Apple demonstrates that a traditional strategy isn't required, and that the functional structure may help firms cope with rapid technology development and market disruption. Giving business unit leaders complete autonomy over critical operations helps them to do what is best for their clients and optimize their outcomes, while also allowing executives monitoring them to evaluate their performance (Livescault, J.). Apple's dedication to a functional structure does not imply that its structure has stayed unchanged. That organization has evolved as the relevance of artificial intelligence and other emerging fields has grown (Podolny.et.al 2021). People all know that having the proper people is crucial to creativity. For many businesses, this is a thorough hiring procedure that focuses on matching skills, knowledge, and talent to a specific task or set of duties. Besides, many businesses, on the other hand, fail to realize the full potential of their most brilliant employees. Here's where Steve Jobs' counsel can help. "It doesn't make sense to hire smart people and tell them what to do," Jobs explained. "We hire smart people so they can tell us what to do" (Livescault, J.).

Business innovation in entrepreneurship: Facebook

There is no doubt that Facebook's organic reach has dwindled for most advertisers in recent years. That is not to say you should abandon this social media platform just yet. On the contrary, a recent poll of marketers found that Facebook is still the most successful social media marketing tool available (Web.com; 2021). As of October 2019, Facebook Marketplace is utilized by 800 million people each month in 70 countries. Given that the platform was just launched 3 years ago, this is a significant increase. It all began in February 2015, when Facebook introduced buy and sell groups, which allowed users to post things for sale in such groups, complete with a product description, price, and pick-up or delivery location. Users spent more time on Facebook, posting about what they wanted to sell, seeking for goods to purchase, chatting with strangers, and using Facebook Messenger because of this feature (Pahwa, A.; 2021). Besides, for the seller, Facebook advertising is really specific. Sellers may segment their audience based on their geography, age, gender, hobbies, and other characteristics. Use the Custom Audiences tool to target current clients safely and discreetly. Local Awareness advertising, which reaches clients on their mobile devices, is another option for marketing to local customers. Facebook allows sellers to communicate with website visitors. Sellers may use Facebook's retargeting feature to show advertisements solely to individuals who have already visited their company's website. Friends of Friends is a feature on Facebook that allows customers to share the information to their friends. When the target consumers see a product's Facebook posts or advertisements, their Facebook friends see them as well, double the impact of seller Facebook marketing efforts (Web.com; 2021).

Business innovation in business model: Google Inc.

Google stands out among the pantheon of internet-based firms as both highly successful and particularly creative. Since Microsoft, no firm has achieved such rapid success. Google is a master of IT and business architecture, as well as experimentation, improvisation, analytical decision-making, participatory product creation, and other unconventional kinds of innovation. It brings order to an otherwise chaotic thought process (Iyer, B., Davenport; 2014). The win-win-win proposition helps Google manage to be so financially successful and sustainable overtime. Google is the world's most powerful search engine. It was not, however, the first. In fact, when it first emerged in the late 1990s, it was one of the most up-to-date search engines. It quickly took off, though, owing to a sophisticated algorithm known as PageRank. Initially, it was unclear how the search engine would generate revenue. But one thing was apparent to the company's founders: it was supposed to be free for

its users. But if users aren't paying, who's paying for it? (Cassidy, F.; 2020). Google operates based on an advertising business model in which businesses join the AdWords ad network. To put it in another way, they may bid on terms like "auto insurance" to offer their goods and services. This approach works effectively because it allows companies to track the outcomes of their advertising, present their ads to prospective individuals, and pay based on how many people click on them. Besides, it is easy to monetize publisher's content. On the internet, millions of fresh articles are produced every day. Why, therefore, have so many publishers pressed the publish button? Of course, providing information has never been so simple. Anyone may now become a publisher owing to the internet. However, because Google's strong algorithm can index the whole visible web, it makes it more difficult for publishers to be featured (Cassidy, F. ;2020). By building a compelling value offer for companies and publications, Google has established a sustainable business model based on hidden income creation.

Research Finding 2: *The information obtained or researched showed that the three big companies continue to excel in the industry because of their own innovative strategy and techniques not only limited in innovating their own services and products but by also innovating their management and operation, from traditional management and operation to modern ones. Furthermore, the information showed that innovation is critical to business because it gives each company an identity which vary from one another, new ideas are being produced which can contribute to the business longevity, and innovation allows company to respond to the competition and changes in the market trend which in return are not left behind by what the consumers demanded.*

CONCLUSION

In the conditions of a dynamic business environment and a constant struggle for survival in the market, innovation becomes the basic factor of the growth and development of an enterprise. Namely, it always leads to new solutions, new ideas, and new ways of doing business. The basic competitive advantage of each modern enterprise is reflected in its ability to innovate its own business. Generally, an innovation of an enterprise results in an advantage over the competition, while the resulting competitive advantage results in an increase in profit, which is the main goal of every modern enterprise. A key precondition for the survival of each enterprise is the continuous improvement of competitiveness, that is, the investment in innovation of products and services. Innovation based operations play a key role in fostering prosperity, creating and sustaining competitive advantage. A key aspect of an effective and efficient organization is the active participation of each organizational unit in the innovation process. Innovations are not just the responsibility of research and development, marketing and production units, but involve simultaneous engagement of all functional areas within the enterprise.

CONTRIBUTION AND PRACTICAL IMPLICATIONS

The present study is useful especially for higher-level leaders and managers who want to make their organizations innovation-driven and are concerned about human/user centeredness of innovation in the era of IoT and Industry 5.0 can get the maximum benefit out of it.

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Effect of Green Marketing Tools on Green Consumer Behavior of Tourists

Prof. (Dr.) Suneel Kumar*
Dr. Nisha Devi**

ABSTRACT

In the past few decades across the globe, the tourism sector has showcased significant economic growth and provides employment opportunities to a considerable percentage of the population. However, it has been observed that along with the positive impact on society, culture, and economy, an increase in mass tourism also negatively affects the environment. As the tourism industry shares a close association with the environment it becomes important to understand how tourism consumption in the most well-known tourist destinations impacts the environment and disturbs many social and economic elements. Hence, the stakeholders of the tourism industry become more sensitive towards the environment and introduce techniques and policies that promote sustainable development. Sustainable tourism is also a part of that and it refers to a responsible way of traveling that considers the environmental, social, and economic impact of tourism. To promote sustainability in the tourism industry, more focus has been paid to the green marketing aspect. To comprehend the significance of green marketing, certain techniques have been formulated and used exclusively in the tourism sector (Punitha & Rasdi, 2013).

The present study was conducted in a Rural Sub-Himalayan State, Himachal Pradesh known for its stunning tourist spots. This study adds value to the literature from the geographical perspective of an Asian nation, India. A descriptive research design has been adopted for the present study. In light of the prior studies, pertinent research objectives and hypotheses have been developed. A research instrument has been developed based on standardized questionnaires to gather quantitative data. Simple Random Sampling has been used to collect the data from the tourists visiting Himachal Pradesh. SPSS version 28 will be used to analyze and interpret the data. The study will assess the effect of socio-demographic aspects of tourists on green marketing tools. Along with that, the study will also examine various green marketing tools such as eco-brand, eco-label and eco-friendly advertisement in detail with the help of descriptive statistics.

Keywords: *Green Marketing, Consumer Behaviour, Tourism*

INTRODUCTION

The tourism sector plays a vital role in the advancement of several economies around the world. This is particularly relevant in developing nations, where tourism fosters social development, economic growth, and poverty reduction through offering employment opportunities and encouraging social inclusion. (UNWTO, 2021). According to the United Nations World Tourism Organization (UNWTO), before the COVID-19 pandemic, international tourism receipts reached US$1.8 trillion in 2019, representing a 9% increase from the previous years (WTTC, 2019). During the past few decades, researchers recognized how important tourism is to the growth of the economy, and hence, they have thoroughly examined tourism and its different aspects including its effects on the economy, society, culture, and the environment as a research area (Liu et al., 1987; Ramkissoon, 2023; Travis, 1982; J. Wang, Huang, Gong, & Cao, 2020). Scholars found that, as every coin has two sides, similarly the tourism industry has the potential to both positively and negatively impact the

*Professor, Department of Commerce, Shaheed Bhagat Singh College, University of Delhi, drsuneel.sbsc@gmail.com
**Guest Faculty, Department of Commerce, Dyal Singh College, University of Delhi, chaudhary29nisha6@gmail.com

environment. On the one hand, tourism promotes environmental conservation by supporting conservation efforts, conducting awareness campaigns, promoting sustainable tourism practices(Snyman & Bricker, 2019; Strydom et al., 2019) and cultural resources (Salinas Fernández et al., 2020; Zadeh Bazargani & Kiliç, 2021). On the other hand, extensive tourism and allied activities adversely affect the environment resulting in climate change, greenhouse gas emissions, global warming, and pollution (Baloch et al., 2023; Zeng et al., 2021). According to a study by the United Nations Environment Programme (UNEP), tourism leads to the overuse of water resources, particularly in arid regions (UNEP, 2022) and in another study conducted by the Intergovernmental Panel on Climate Change (IPCC) it has been found that tourism accounts for around 5% of global greenhouse gas emissions (IPCC, 2018). A study by Kelman (2021) highlights that tourism can lead to the overuse of waste disposal facilities, particularly in small island states. In addition, tourism also contributes to littering and marine pollution, particularly through single-use plastics and other disposable products (Clayton et al., 2021).

As the tourism industry and the environment are closely related, all stakeholders of the tourism industry must understand the value of sustainable tourism practices, which strive to reduce the harmful environmental effects of tourism while enhancing its economic and social gains (Nepal et al., 2019). According to a study by the Global Sustainable Tourism Council (GSTC), consumers increasingly seek sustainable tourism options and are willing to pay a premium for them(GSTC, 2021). Tourism is a complex industry that greatly affects a destination's environment, society, and economy. Thus, environmental sustainability is one of the key dimensions of sustainable tourism which helps in minimizing the negative impacts of tourism on the environment. Sustainable tourism talks about initiatives for the conservation and preservation of natural resources, promotion of eco-friendly tourism activities, sustainable accommodation, support for local conservation efforts, and environmental education. Past studies have also highlighted that prioritizing sustainability over economic profit has gained attention to ensure long-term environmental and social well-being (Chaigneau et al., 2022; Kasim, 2006; Ngan et al., 2019). Sustainability practices lead to long-term economic benefits by promoting innovation, reducing waste and inefficiency, and creating more resilient communities. A study by the University of Cambridge Institute for Sustainability Leadership found that companies focusing on sustainability tended to outperform their peers regarding financial performance, risk management, and stakeholder engagement(CISL, 2017).

LITERATURE REVIEW

In recent times along with sustainability, researchers majorly emphasized on "green tourism" and "rural tourism" particularly in the tourism and hospitality sector (Chan, 2000; Kim et al., 2016).Overall, rural and green tourism serve as alternative tourism practices that promote the sustainability of environmental resources by preserving natural and cultural resources(Aronsson, 1994; Bramwell, 1994; Guaita Martínez et al., 2019). The studies by Law et al. (2016 and 2017) and Pan et al. (2018) present a green economy indicator framework for tourism destinations. Since more tourists are interested in environmentally friendly activities, green marketing strategies have gained importance in the hospitality and tourism sectors. Marketing and green marketing are closely related because both focus on creating customer value and building relationships with them. However, green marketing places a special emphasis on environmental sustainability and social responsibility. Thus, green marketing often targets environmentally conscious consumers interested in sustainable products and services. According to a study by the University of Gdansk, "green marketing is a form of market segmentation that identifies consumers motivated by environmental concerns" (Paço, Shiel, & Alves, 2019). Additionally, green marketing often involves eco-labeling and other certification forms to signal environmental sustainability to customers. The study by (Zhang et al., 2018) highlighted that "green marketing can enhance a company's brand image and reputation, leading to increased customer loyalty and positive word-

of-mouth". Simultaneously, green marketing often uses eco-friendly messaging and imagery to appeal to environmentally conscious consumers. Green advertising can effectively reach environmentally conscious consumers and build brand loyalty (Amoako et al., 2022; Khandelwal & Bajpai, 2011). Also, researchers found that tourism firms can utilize green marketing techniques to promote ecologically responsible tourism products and services and can also positively influence the purchasing behavior of tourists towards eco-friendly products. The study found that consumers who were exposed to green marketing messages were more likely to have positive attitudes toward green products and were more likely to purchase them (Mercade Mele et al., 2019; Nik Mahmud et al., 2022). Tourism firms present themselves as pioneers in sustainable tourism by incorporating sustainability into their branding and advertising. It aids in raising awareness and motivates buyers to make wiser choices. Moreover, eco-labels and green certifications let tourists know that a company or location is dedicated to environmental sustainability. A Global Sustainable Tourism Council study found that "most travelers would choose a green-certified hotel over a non-certified one, even if the price were higher" (GSTC, 2019). In another study by (Wei et al., 2018) it has been concluded that advertising increases consumers' willingness to pay a premium for eco-friendly products. The study found that consumers who were exposed to environmental advertising were willing to pay more for eco-friendly products than consumers who were not exposed to such advertising. Thus, past evidence suggests that green marketing tools such as eco-labels (Horne, 2009; Testa et al., 2015), eco-brands (Rahbar et al., 2011), and advertisements (Hussain et al., 2020) significantly contribute to consumers' green purchasing behavior.

In the available literature, it has been established that the green marketing tool positively influences the green purchasing behavior of tourists. However such studies have been majorly conducted in Western countries. The empirical part of such studies has been missed in the Indian context and only a few studies have been found in rural settings. Himachal Pradesh is a rural state, situated in the North Western Himalayan region. Apart from agriculture, the tourism industry contributes significantly to the GSDP of the state. However, excessive dependency on tourism results in the deterioration of the environment. Therefore, stakeholders of tourism industries are now focusing on sustainable tourism practices and are following various green marketing tools to make people aware of sustainable tourism products and services and influence the purchasing behavior of tourists. By doing so, they can not only attract more environmentally conscious tourists but also contribute to the preservation of the natural and cultural heritage of the region for future generations. Therefore, it is of utmost importance to conduct research in Himachal Pradesh to understand whether green marketing tools influence the purchasing behavior of tourists visiting Himachal Pradesh or not.

Green Marketing Tools

In the 1970s and 1980s, as environmental issues and sustainability consciousness grew, the idea of "green marketing" first emerged which is a part of the broader concept of sustainability(Peattie & Crane, 2005). It includes putting a focus on using environmentally friendly products, cutting carbon emissions, utilizing renewable energy sources, or encouraging eco-friendly manufacturing techniques. Green marketing aims to draw in customers who are interested in environmentally friendly products and to persuade more companies to adopt environmentally friendly methods and techniques. Mukonza & Swarts (2020) defined green marketing as "the development and promotion of products and services that are environmentally friendly or sustainable, or that have a positive impact on the natural environment". In 1975, The American Marketing Association (AMA) defined green marketing as "the marketing of products that are presumed to be environmentally safe" (Chaudhary et al., 2011).

In the available literature, it has been found that green marketing tools such as eco-branding, eco-labeling, and eco-advertising significantly influence the green purchasing behavior of tourists and positively impact the

consumers' willingness to pay more for environmentally friendly products (Chen, 2005; Di Martino et al., 2019; Vazifehdoust et al., 2013; Hayat et al., 2022). According to the American Marketing Association (AMA), a brand is defined as "a name, term, design, symbol, or any other feature that identifies one seller's goods or services as distinct from those of other sellers"(AMA, 2021). Moreover, eco-branding is associated with sustainable practices and products with a lower environmental impact than conventional products(Ch et al., 2021). Hence, eco-branding is a green marketing tool highlighting a brand's environmental attributes and sustainability practices, which can help consumers make more informed purchasing decisions(Chkanikova & Lehner, 2015; Sewwandi & Dinesha, 2022).

Different entities have used eco-labeling to protect the environment, such as the European Union's Eco-Label program, launched in 1992, a voluntary labeling program that identifies products and services with a reduced environmental impact. A study by Sweeney and Soutar (2001) found that eco-labeling effectively increased consumers' perceived environmental benefits and willingness to pay a premium for environmentally friendly products. In India, the Bureau of Indian Standards (BIS) has launched an eco-labeling program called the "Indian Eco-label" or "Eco Mark" to promote environmentally sustainable products. The program was introduced in 1991 and covers a range of products, including textiles, paper, food items, and household appliances(BIS, 2023). In short, eco-labeling is a green marketing tool used to identify environmentally sustainable products through voluntary certification programs that assess a product's environmental impact based on specific criteria(Acharya, 2020; Zaman et al., 2010). Hence, eco-labels are intended to provide consumers with information about a product's environmental impact so that they make more green purchasing decisions.Eco-friendly advertising is a green marketing tool that promotes products or services by highlighting their environmental benefits or sustainability practices. Eco-friendly advertisements can include messages about a product's energy efficiency, recyclability, use of renewable resources, or reduction of environmental impact. According to a study by Nielsen, more than half of consumers worldwide (53%) are willing to pay more for products and services from companies committed to making a positive social and environmental impact (Nielsen, 2015). Eco-friendly advertisements can help companies tap into this growing demand for sustainable products and services.Eco-friendly advertisements can help companies tap into this growing demand for sustainable products and services. Another recent survey on eco-friendly advertising conducted by the Global Web Index found that 61% of consumers are likely to buy a product from a company with an eco-friendly reputation(GWI, 2019). A study by the University of California, Los Angeles (UCLA) found that advertisements that promote eco-friendly behavior are more effective when they focus on the benefits to the individual, such as cost savings or health benefits, rather than just the environmental impact (Delmas & Lessem, 2017). Further study by the University of Michigan found that consumers with a strong environmental identity are more likely to engage in eco-friendly behavior, such as green purchasing (Schultz et al., 2004). On the basis of discussion, the following hypothesis has been developed.

Hypothesis

H1: Eco-Branding significantly positively influences the Green Purchasing Behavior of tourists.

H2: Eco-Labeling significantly positively influences the green purchasing behavior of tourists.

Eco-Friendly Advertisement and Purchasing Behavior of Tourists

H3: Eco-Friendly advertisements significantly positively influence green purchasing behavior of tourists.

On the basis of above discussion and hypothesis a research framework given in figure 1 has been suggested for

the present study. The framework conceptualized green marketing tools as three-dimensional constructs, including eco-branding, eco-labelling, and eco-friendly advertising, as independent variables.

The dependent variable for the study is green purchasing behavior of tourists.

Figure 1

Research Framework for the present study
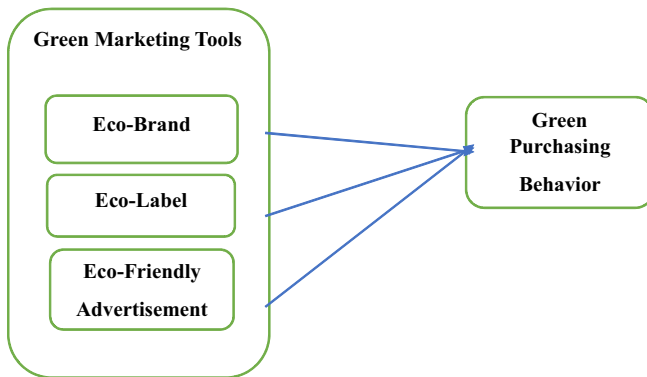
RESEARCH METHODOLOGY

The primary objective of the study is to assess the role played by green marketing tools (eco-brand, eco-label, and eco-friendly advertisement) in the green purchasing behavior of tourists visiting various destinations in Himachal Pradesh. The study is very important because it has been conducted in the geographical area of Himachal Pradesh which is a rural and Sub Himalayan State. The study was conducted on the three famous tourist destinations of Himachal Pradesh which were Shimla, Kullu, and Kangra. These destinations have been chosen for the present study because, in these destinations, maximum tourist flow occurs.

For the present study, a cross-sectional and descriptive research design has been adopted. To collect the data for the present study quantitative approach has been used. A standardized questionnaire from the study of Chin et al., (2017)has been adopted in the present study. The questions in the instrument considered mainly three marketing tools which are eco-brand, eco-label, and eco-friendly advertisement, which act as independent variables, and green purchasing behavior of tourists, which is the dependent variable for the present study. The questionnaire was carefully modified and designed in simple structures with unbiased wording. This is to ease the respondents' understanding of them, providing perceptive answers.

The sample size was calculated by using G-Power version 3.1. Based on the power of 0.95 with an effect size of 0.05, the required sample size is 146 to test the model with three predictor variables. Furthermore, Reinartz et al. (2009) proposed a minimum threshold of 100 samples for structural equation modeling via partial least squares (PLS-SEM). To avoid any possible complications arising from a small sample size, this study randomly collected data from 280 tourists of Himachal Pradesh. Out of that, only a sample of 242 was used for the present study.

Data Analysis and Results

To analyze the results of the study, appropriate statistical tools and techniques have been used, explained in subsequent sections.

Demographic Characteristics

To Analyze the demographic profile of the respondents of the study, descriptive statistics (frequency and percentage) have been used. The total respondents for the study were 242 tourists. Most of the respondents are female (53.7%). With respect to educational background, most respondents, 107(44.21%), achieved Postgraduate education, while 84 (34.77%) completed their graduation. In terms of the level of income, 69 (28.5%) respondents have income between 1L-25L, and 49 (20.2%) respondents' income is between 25L-50L. In terms of the profession of tourists, the majority of the respondents, 131 (54.1%), were students, 66 (27.3%) were in the government service industry, and only 30 (12.4%) tourists were in professional fields. Table 1 depicts the demographic composition of the sample of the study.

Table 1

Demographic Composition of the Sample

Demographic Information		Frequency	Percent (%)
Gender	Male	112	46.3
	Female	130	53.7
Education Qualification	High School	37	15.3
	Diploma	1	0.4
	Graduation	84	34.7
	Post-Graduation	107	44.21
	Other	13	5.37
Level of Income	1L-25L	69	28.5
	25L-50L	49	20.2
	50L-75L	42	17.4
	75L-1cr	39	16.1
	Above 1 crore	43	17.8
Nature of Profession	Student	131	54.1
	Government Service	66	27.3
	Business	3	1.2
	Professional	30	12.4
	Others	12	5.0

Source: SPSS Outcome

To examine the various green marketing tools such as eco-brand, eco-label and eco-advertisement.

Table 2

Descriptive Statistics related to Eco-Branding

	Statements	Sum	Mean	Std. Deviation
	Descriptive Statistics			
EB.1	I prefer to use eco-brand products in tourism sites.	1001	4.14	.903
EB.2	I can easily differentiate between green and non-green products.	954	3.94	.918
EB.3	I find that eco-branded products are good for environmental sustainability.	1089	4.50	.689
EB.4	I believe eco-brand is more truthful than ordinary brands.	975	4.03	.922
EB.5	I believe that the product with eco-brand are less detrimental impact to the the environment in the tourism sites.	1005	4.15	.803
EB.6	Eco-branded products are more appealing to me.	963	3.98	.862
EB.7	Eco branded products are more reliable than ordinary products	944	3.90	.878

Source: SPSS Outcome

Table 3

Descriptive Statistics related to Eco-Labeling

	Statements	Sum	Mean	Std. Deviation
	Descriptive Statistics			
EL.1	I am aware of the "Eco-mark" (certification mark issued by the Bureau of Indian standards to products conforming to a set of standards aimed at the least impact on the ecosystem).	958	3.96	.963
EL.2	I frequently purchase and use Eco-labelled products in tourist sites.	881	3.64	.968
EL.3	The Indian eco-label logo is easily recognizable to me.	911	3.76	1.038
EL.4	I frequently purchase products that are labeled as "environment friendly"	915	3.78	.958
EL.5	Whenever I buy products, I always read the labels.	936	3.87	1.018
EL.6	I believe products with eco-label should be sold in tourist sites.	1038	4.29	.819

Source: SPSS Outcome

Table 4

Descriptive Statistics related to Eco-friendly Advertisement

	Descriptive Statistics			
	Statements	**Sum**	**Mean**	**Std. Deviation**
EFA.1	In general, I like environment-friendly advertisements on social media, hoardings and television.	1028	4.25	.749
EFA.2	I consider eco-friendly advertisements on social media, hoardings and television in tourist destinations to be misleading.	787	3.25	1.238
EFA.3	As per my opinion, eco-friendly advertising is essential in tourist sites.	1023	4.23	.821
EFA.4	I believe that print media (newspaper and magazine) advertising to be very essential in tourist sites	946	3.91	.920
EFA.5	I consider print advertising in tourist sites misleading.	757	3.13	.920
EFA.6	I would be influenced to buy the products that are advertised in the environmental friendly advertisements.	952	3.93	1.11
EFA.7	I like those advertisements that contain information about environmentally friendly products.	999	4.13	.732

Reliability and Validity

To measure the variables of the study,there are a total of 26 items in the questionnaire. The first step in the PLS-SEM analysis process is to assess the factor loadings of various items of the instrument. When the factor loading has been applied to the various Items of the instrument, it has been found that there are a few items whose loading values have been less than 0.708, which is the threshold value for the factor loading measure. This demonstrates that the construct explains less than 50% of the variance in the indicator, resulting in inadequate item reliability (Heir et al., 2017). Hence such items have been deleted from the instrument. Finally, 14 items have been left for further analysis purposes. The factor loading values of all the items of the instrument have been presented in Table 5.

Table 5

Factor Loadings of various items of major Variables

Item Code	Factor Loading	Item Code	Factor Loading
EB.1	0.704	EFA.1	0.615
EB.2	0.682	EFA.6	0.753
EB.3	0.747	EFA.7	0.788
EL.2	0.754	GPB.1	0.795
EL.3	0.660	GPB.2	0.746
EL.4	0.773	GPB.3	0.636
EL.5	0.727	GPB.6	0.662

Note: Eco-Brand (EB), Eco-Label (EL), Eco-Friendly Advertisement (EFA), Green Purchasing Behavior (GPB)

After factor loading, the reliability and validity of all items of the scale have been assessed with the help of various measures,and the results have been presented in Table 3. Firstly All Cronbach's alpha values exceed 0.7 thresholds (Nunnally, 1978), indicating that all the items are reliable. Without exception, all composite reliability values exceed 0.7 (Hair et al., 2017), showing a high internal consistency of indicators measuring each item and thus confirming the construct reliability. Moreover, the Dillon–Goldstein rho was used to evaluate the construct reliability. The Dillon-Goldstein rho values for all indicators were more than 0.70, confirming the item's reliability.

As for convergent validity, we examined the average variance extracted (AVE), and its values should be more than 0.50 (Hair et al., 2011). Table 6 shows that HAVE values for all constructs are higher than 0.5, which indicates acceptable convergent validity.

Table 6

Reliability and Validity of the Various Constructs

	Cronbach's Alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
EB	0.754	0.756	0.755	0.506
EFA	0.758	0.774	0.765	0.523
EL	0.819	0.822	0.819	0.532
GPB	0.801	0.810	0.804	0.508

Note: Eco-Brand (EB), Eco-Label (EL), Eco-Friendly Advertisement (EFA), Green Purchasing Behavior (GPB)

To understand the impact of eco-branding on the green purchasing behavior of tourist

In this objective there are majorly two major variables, one is eco-branding which is an independent variable and the dependent variable is the green purchasing behavior of tourists which is an independent variable. As both the variables are latent constructs they have been measured on a five-point Likert scale. To understand the impact of eco-branding on the green purchasing behavior of tourists, linear regression with the help of SPSS software has been applied.

Hypothesis (H1): There is a significant impact of eco-branding on the green purchasing behavior of tourists.

The hypothesis tests if eco-branding significantly impacts the green purchasing behavior of tourists. The dependent variable purchasing behavior was regressed on predicting variable eco-branding to test hypothesis H1. Eco-branding significantly predicted green purchasing behavior, $F(1, 240) = 176.170$, $p<.001$, which indicates that eco-branding plays a significant role in the green purchasing behavior of tourists ($b=.712$, $p<.001$). These results clearly direct the positive effect of eco-branding on the green purchase behavior of tourists. Moreover, the $R^2 = .423$ depicts that eco-branding explains 42.3 % of the variance in the green purchasing behavior of tourists. Table 10 presents the summary of the findings.

Table7: Summary of Regression Analysis

Hypotheses	Regression Weights	Beta Coefficient	R^2	F	p-value	Result of hypothesis
H1	EB =>CPB	.712	.423	176.170	<.001	Accepted

Source: SPSS Regression results

To study the effect of eco-labelling on the green purchasing behavior of tourist

In this objective there are majorly two major variables, one is eco-labeling which is an independent variable and another variable is the green purchasing behavior of tourists which is an independent variable. As both the variables are latent constructs they have been measured on a five-point Likert scale. To understand the effect of eco-labeling on the green purchasing behavior of tourists, linear regression with the help of SPSS software has been applied.

Hypothesis (H2): There is a significant impact of eco-labeling on the green purchasing behavior of tourists.

The hypothesis tests if eco-labelling significantly impacts the green purchasing behavior of tourists. The dependent variable purchasing behavior was regressed on predicting variable eco-labelling to test hypothesis H2. Eco-labelling significantly predicted green purchasing behavior, $F(1, 240) = 215.514$, $p<.001$, which indicates that eco-labelling plays a significant role in the green purchasing behavior of tourists ($b=.657$, $p<.001$). These results clearly direct the positive effect of eco-labelling on the green purchase behavior of tourists. Moreover, the $R^2 = .473$ depicts that eco-branding explains 47.3 % of the variance in the green purchasing behavior of tourists. Table 11 given below presents the summary of the findings.

Table8: Summary of Regression Analysis

Hypotheses	Regression Weights	Beta Coefficient	R^2	F	p-value	Result of hypothesis
H2	EL=>CPB	.657	.473	215.514	<.001	Accepted

Source: SPSS Regression results

To study the relationship between eco-friendly advertisements and the green purchasing behavior of tourist

In this objective there are majorly two variables, one is eco-friendly advertisement which is an independent variable and another variable is green purchasing behavior of tourists which is an independent variable. As both the variables are latent constructs so they have been measured on a five-point Likert scale. To understand the effect of eco-friendly advertisement on the green purchasing behavior of the tourists, linear regression with the help of SPSS software has been applied.

Hypothesis (H3): There is a significant impact of eco-friendly advertisements on the green purchasing behavior of tourists.

The hypothesis tests if eco-friendly advertisements significantly impact the green purchasing behavior of tourists. The dependent variable purchasing behavior was regressed on predicting variable eco-friendly advertisements to test hypothesis H3. Eco-labelling significantly predicted green purchasing behavior, F (1, 240) = 216.270, p<.001, which indicates that eco-friendly advertisement plays a significant role in the green purchasing behavior of tourists (b=.808, p<.001). These results clearly direct the positive effect of eco-friendly advertisement on the green purchase behavior of tourists. Moreover, the R^2 = .474 depicts that eco-friendly advertisement explains 47.4 % of the variance in the green purchasing behavior of tourists. Table 9 presents the summary of the findings.

Table9: Summary of Regression Analysis

Hypotheses	Regression Weights	Beta Coefficient	R^2	F	p-value	Result of hypothesis
H3	EFA=>CPB	.808	.474	216.270	<.001	Accepted

Source: SPSS Regression results

DISCUSSION AND CONCLUSION

In the present era, people are more conscious about their environment and hence emphasize more on the usage of green products. These dynamics provide opportunities for marketers that they should now move from traditional marketing styles to green marketing tactics. It has been observed that green marketing strategies have the potential to change customer purchasing behavior towards sustainable products and services (Burhan

et al., 2021). An eco-friendly marketing strategy seeks to satisfy eco-conscious consumers and draw their eco-friendly behavior. Additionally, green marketing is employed to create powerful marketing plans dedicated to eco-friendly consumer behavior (Sharma et al., 2021). Environmental sustainability is one of the topics of constant discussion among different stakeholders of the tourism industry (Grimstad & Burgess, 2014). Economic sustainability is predicted to be primarily influenced by the environmental sustainability of resources. The purpose of the current study was to examine how visitors perceived the effects of the three-dimensional elements of green marketing tools (such as eco-brand, eco-label, and environmental advertisement) on the green purchasing behavior of rural tourism destinations. This study aims to shed light on the reasons behind and mechanisms underlying how green marketing strategies influence green consumer behavior from the perspectives of travelers who have traveled to rural tourist areas. Interestingly, the results of this study revealed that all of the three-dimensional elements of green marketing tools had considerable beneficial effects on green purchasing behavior in rural tourism.

The current study also showed that, in the context of rural tourism, eco-brand is strongly and favorably associated with green purchasing behavior. The results of this study agreed with those of investigations by Rahbar and Wahid (2011), Delafrooz et al. (2014), and Ahmadi, Javadi, and Pakravan (2015). Despite the fact that the idea of rural tourism is linked to natural and environmental resources, some of the items utilized by homestays or other industry participants for tourism activities are not ecologically friendly. It is significant to highlight that the current pattern demonstrates that travelers to rural tourist sites, notably in the instance of Sarawak, were willing to accept eco-branded goods. To put it another way, eco-branded products are affecting how visitors feel about consuming green goods. According to the findings, the majority of visitors who travel to rural tourism areas for vacations are concerned about the environment; thus, industry stakeholders are urged to start reorienting their tourism products and services toward eco-branding. Eco-branded goods are strongly connected with green consumer behavior, which therefore promotes brand loyalty and sustainability (Ginsberg & Bloom, 2004).

When using green marketing, green products must inform customers that they are being utilized as ecologically beneficial items. It is done by adding an eco-label label to the goods. The results of this study show that eco-labels and green consumer behavior in rural tourism have a favorable and substantial association. Therefore, having an internationally recognized eco-label authorized is probably going to be a key approach to improving a hotel's reputation for being environmentally friendly and increasing consumers' trust in environmentally friendly goods and services. Additionally, the results of this study confirmed information from other studies (Chekima, 2019; Dekhili&Achabou, 2014), which also showed a favorable correlation between eco-labels and customers' green purchasing behavior. This is because the product information is already on the label (Chekima et al., 2015). Therefore, eco-labels give travelers essential information to distinguish between the types of items and whether they fit into the category of ecologically beneficial or destructive to the environment. In the same vein, Grankvist et al. (2004) discovered that those who have a serious concern for the environment, such as women, graduates, and children, are likely to be influenced by eco-labels in their purchase decisions. Despite the increased cost, eco-labels were viewed by rural visitors as one of the key factors influencing their attitudes toward green shopping practices in rural areas (Loureiro Lotad, 2005). Therefore, it makes sense that travelers are more inclined to buy environmentally friendly goods that have eco-labels.

However, the results also showed a strong link between environmental advertising and rural tourists' propensity for eco-friendly purchases. According to researchers Grillo et al. (2008) and Delafrooz et al. (2014), environmental advertising is crucial in raising consumer awareness of environmental issues and influencing their green purchasing behavior. Visitors to rural tourism sites held the view that environmental advertising contributed to the development of favorable consumer values and attitudes, which in turn influenced

purchasing behavior. One of the first promotional materials to reach visitors before or during their stay is advertising. This can be done via printed advertising methods or any other sort of media. Due to restrictions on the availability of energy, television commercials may not be suitable for some remote tourist areas. However, because of several government programs, some rural tourist locations in Kuching are highly developed and have electrical supplies. According to the research, travelers believe that environmental advertising influences their views toward green purchasing behavior, either before or during their vacation to rural regions.

The study summarized that the three-dimensional elements of green marketing tools viz., eco-brand, eco-label, and environmental advertisement, are significantly and favorably correlated with the green purchasing behavior of tourists visiting rural destinations. Additionally, the current study has validated and shown that there are connections between consumer green purchasing behavior and eco-brand, eco-label, and environmental advertising.

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Investigating the Factors that Affect Goal-Based Investing Behaviour: An Empirical Study

Aman Amber Gandhi*
Dr. Anuradha R.**

ABSTRACT

This research study investigates the factors that influence goal-based investing behaviour among Indian investors and measures their impact on herding behaviour and disposition effect. The study considers financial goals, risk tolerance, financial literacy, investment knowledge, and investment attitude as independent variables. Data was collected from 80 Indian respondents of various age groups. The study hypothesizes that herding behaviour and disposition effects are significantly influenced by financial goals, investment knowledge, investment attitudes, risk tolerance, and financial literacy. The results indicate that all independent variables have a significant effect on herding behaviour, while only financial goals, investment knowledge, and investment attitudes have a significant effect on the disposition effect. The study provides valuable insights for investors, financial advisors, and policymakers to improve goal-based investing behaviour among Indian investors. By focusing on setting clear financial goals, increasing investment knowledge, developing a positive investment attitude, and promoting financial literacy, investors can improve their investment behaviour and achieve their financial objectives.

Keywords: *Financial Literacy, Investment Knowledge, Goal-based Investing, Investor Behaviour*

INTRODUCTION

Investing is an essential component of financial planning, which helps individuals to attain their financial goals. The financial goals of individuals vary depending on their personal preferences and life circumstances. These goals can range from short-term goals such as purchasing a car or a home, to long-term goals such as retirement planning or children's education. However, achieving these financial goals requires an understanding of various investment options and their potential risks and returns.

Investment behaviour is influenced by various factors, such as financial goals, investment knowledge, investment attitudes, risk tolerance, and financial literacy. These factors play a crucial role in determining how individuals approach their investment decisions, including how they react to market changes and how they respond to information from other investors.

One aspect of investment behaviour that has been widely studied is herding behaviour. Herding behaviour occurs when investors follow the actions of others, rather than making independent decisions based on their financial goals and market analysis (Tauseef, 2022). This behaviour has been observed in both individual and institutional investors and is believed to contribute to market volatility and inefficiencies.

Another aspect of investment behaviour that has been studied is the disposition effect. The disposition effect

*Student Bachelor of Business Administration, School of Business and Management CHRIST (Deemed to be University) Bangalore Karnataka, India, aman.gandhi@bba.christuniversity.in

Assistant Professor, School of Business and Management CHRIST (Deemed to be University) Bangalore Karnataka, India, anuradha.r@christuniversity.in

refers to the tendency of investors to hold onto losing investments for too long and to sell winning investments too quickly. This behaviour has been linked to cognitive biases such as loss aversion, which makes investors more sensitive to losses than gains.

Given the importance of investment behaviour and its impact on financial outcomes, understanding the factors that influence investment behaviour is crucial. This study aims to investigate the key factors that affect goal-based investment behaviour among Indian investors, focusing on herding behaviour and the disposition effect.

LITERATURE REVIEW

Giorgi (2009) proposed a time-continuous goal-based portfolio selection model incorporating cumulative prospect theory and satisficing behaviour. Findings suggest that reasonable investment goals, low leverage, and low incentives for challenging short-term objectives are crucial. The study's implications are important in light of the 2008 financial crisis due to excessive leverage and high incentives for short-term goals. The study contributes to portfolio selection literature by illuminating how individuals with various aims and preferences approach investing. The findings have implications for investors, financial advisors, and policymakers in creating effective investment strategies and rules to mitigate investment risks.

Jyotirmayee Sahoo's study (2022) explores how behavioural finance impacts financial decision-making. The study reviews the existing literature to highlight the role of behavioural biases, such as overconfidence, loss aversion, and herding behaviour, in influencing investment decisions. The study also discusses the impact of emotions like fear and greed on financial decision-making. The study concludes that a better understanding of behavioural finance can lead to improved financial planning and investment strategies. It emphasizes the importance of investors adopting rational decision-making processes and being aware of their behavioural biases and emotions. This study contributes to the body of knowledge on behavioural finance and has implications for investors, financial advisors, and policymakers seeking to develop effective investment strategies and regulations that account for behavioural biases and emotions.

Forbes (2010) investigated the relationship between investing self-efficacy, investment knowledge, and confidence in a large sample of working people. The study found that confidence served as a mediator between belief in one's ability to plan a strategy to achieve investment goals and belief in one's understanding of investing. However, only 57% of employees' applied investment knowledge was accurate, indicating room for improvement. The study proposes a solution of required investment education to improve financial awareness and protect individuals' freedom of choice. Overall, the study highlights the significance of investment knowledge and confidence in making sound investment decisions.

Kang Li Lim, Geoffrey N. Soutar, and Julie A. Lee's (2013) study analyses how consumer behaviour impacts investment decision-making by developing an investment intentions model using structural equation modelling. The study found that product engagement and knowledge were the most significant factors influencing investment intentions, and that perceived risk acted as a mediator. The study's contribution lies in its incorporation of consumer behaviour dimensions into an investment intentions model, enabling a better understanding of clients' investment inclinations. The findings emphasise the importance of considering consumer behaviour concepts when examining investor decision-making and provide insightful information for financial professionals. Future research may find this study useful in examining the link between consumer behaviour and financial investment decision-making.

OBJECTIVES OF THE STUDY

Objectives in a research project refer to the specific, measurable, achievable, relevant, and time-bound goals that a researcher intends to achieve through the study. With the aid of objectives, the research process is aided,

the study is given direction, and the research problem is effectively addressed. Overall, a research project's objectives serve as a concise and clear road map for carrying out the research and guarantee that the study is targeted and successful in achieving its objectives.

The following are the objectives of this research:

1. To identify the key factors that affect goal-based investing behaviour (measured by herding behaviour and disposition effect) of Indian investors.

2. To measure the impact of identified factors on herding behaviour among Indian investors.

3. To measure the impact of identified factors on disposition effect among Indian investors

RESEARCH GAP

After conducting a literature review, one potential research gap that emerges is the lack of empirical studies that focus specifically on goal-based investing behaviour among Indian investors. While there is some research on investment behaviour and decision-making in India, few studies have specifically investigated the factors that influence goal-based investing behaviour. This is particularly important given the increasing emphasis on goal-based investing strategies among financial advisors and policymakers in India.

Therefore, the research gap that this study seeks to fill is the lack of empirical research on the specific factors that influence goal-based investing behaviour among Indian investors. By examining the impact of financial goals, risk tolerance, financial literacy, investment knowledge, and investment attitude on herding behaviour and disposition effect, this study aims to provide a more comprehensive understanding of the factors that influence investment behaviour in the context of goal-based investing. This research will contribute to the development of more effective investment strategies for Indian investors and provide insights for financial advisors and policymakers seeking to improve investor outcomes.

RESEARCH METHODOLOGY
Hypotheses:
H1a: Herding behaviour of investors is significantly affected by financial goals
H1b: Herding behaviour of investors is significantly affected by investment knowledge
H1c: Herding behaviour of investors is significantly affected by investment attitudes
H1d: Herding behaviour of investors is significantly affected by risk tolerance
H1e: Herding behaviour of investors is significantly affected by financial literacy

H2a: Disposition effect of investors is significantly affected by financial goals
H2b: Disposition effect of investors is significantly affected by investment knowledge
H2c: Disposition effect of investors is significantly affected by investment attitudes
H2d: Disposition effect of investors is significantly affected by risk tolerance
H2e: Disposition effect of investors is significantly affected by financial literacy

Method of Data Collection, Sampling and Questionnaire Design

Primary Data was collected for this study through a Google Form Questionnaire. Google Forms is a tool where a questionnaire can be circulated via a link and collect responses. The sampling type used in this study was a non-probability convenience sampling method. Participants were recruited by sending out the link to the questionnaire personally. Around 80 participants from various age groups were selected for this study.

The questionnaire was designed to collect information about the participants' financial goals, investment

knowledge, investment attitude, risk tolerance, and financial literacy.

The questionnaire consisted of two sections. The first section included questions related to demographic information such as age, gender, education, and income. The second section included questions related to the variables of interest in the study. The questions in the second section were designed using a 3-point Likert scale.

Statistical Design

SPSS has been used to run tests for this study. The tests run were: Cronbach's Alpha for reliability, Correlation and Regression

ANALYSIS AND INTERPRETATION
Cronbach's Alpha

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.514	.698	6

The Cronbach's alpha coefficient obtained from the analysis was 0.514, which shows decent levels of reliability of the data, anything above 0.5 is considered to be good.

Correlations
Table 2: Correlation Test

		Total FG	Total IK	Total IA	Total RT	Total FL	Total HB	Total DE
Total FG	Pearson Correlation	1	.144	.331**	.130	.518**	-.099	-.108
	Sig. (2-tailed)		.213	.003	.260	<.001	.393	.349
	N	77	77	77	77	77	77	77
Total IK	Pearson Correlation	.144	1	.207	.388**	.372**	.131	.158
	Sig. (2-tailed)	.213		.071	<.001	<.001	.256	.169
	N	77	77	77	77	77	77	77
Total IA	Pearson Correlation	.331**	.207	1	.537**	.450**	-.016	-.155
	Sig. (2-tailed)	.003	.071		<.001	<.001	.887	.179
	N	77	77	77	77	77	77	77
Total RT	Pearson Correlation	.130	.388**	.537**	1	.303**	.181	.093
	Sig. (2-tailed)	.260	<.001	<.001		.007	.116	.419
	N	77	77	77	77	77	77	77
Total FL	Pearson Correlation	.518**	.372**	.450**	.303**	1	-.012	-.102
	Sig. (2-tailed)	<.001	<.001	<.001	.007		.921	.376
	N	77	77	77	77	77	77	77
Total HB	Pearson Correlation	-.099	.131	-.016	.181	-.012	1	.405**
	Sig. (2-tailed)	.393	.256	.887	.116	.921		<.001
	N	77	77	77	77	77	77	77
Total DE	Pearson Correlation	-.108	.158	-.155	.093	-.102	.405**	1
	Sig. (2-tailed)	.349	.169	.179	.419	.376	<.001	
	N	77	77	77	77	77	77	77

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

- Financial Goals have a positive correlation with investment knowledge, investment attitudes, risk tolerance, and financial literacy, but a negative correlation with herding behaviour and disposition effect.

- Investment Knowledge has a positive correlation with all other variables, except herding behaviour and disposition effect.

- Investment Attitudes have a positive correlation with investment knowledge, investment attitudes, risk tolerance, and financial literacy, but a negative correlation with herding behaviour and disposition effect.

- Risk Tolerance has a positive correlation with all other variables, except herding behaviour and disposition effect.

- Financial Literacy has a positive correlation with investment knowledge, investment attitudes, risk tolerance, and financial goals, but a negative correlation with herding behaviour and disposition effect.

- Herding Behaviour has a positive correlation with investment knowledge, risk tolerance, and disposition effect, but a negative correlation with financial goals, investment attitudes, and financial literacy.

- Disposition Effect has a positive correlation with investment knowledge, risk tolerance, and herding behaviour, but a negative correlation with financial goals, investment attitudes, and financial literacy.

Regression

Herding Behaviour (HB):

Table 3: Regression (HB) - Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Total FL, Total RT, Total IK, Total FG, Total IA[b]		Enter

a. Dependent Variable: HB
b. All requested variables entered.

Based on the Beta value, all the variables have been included, none of the variables have been excluded, as can be seen in Table 3.

Table 4: Regression Coefficients (HB)

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	1.966	.677	
	Total FG	-.054	.076	-.096
	Total IK	.043	.067	.084
	Total IA	-.081	.100	-.121
	Total RT	.114	.073	.228
	Total FL	-.003	.063	-.008

a. Dependent Variable: HB

Disposition Effect (DE):

Table 5: Regression (DE) - Variables Entered/Removed:

Model	Variables Entered	Variables Removed	Method
1	Total FL, Total RT, Total IK, Total FG, Total IA[b]	.	Enter

a. Dependent Variable: Total DE
b. All requested variables entered.

Based on the Beta value, all the variables have been included, none of the variables have been excluded, as can be seen in Table 5.

Table 6: Regression Coefficients (DE)

Model		Unstandardized Coefficients		Standardized Coefficients
		B	Std. Error	Beta
1	(Constant)	4.035	1.168	
	Total FG	-.024	.131	-.025
	Total IK	.161	.116	.178
	Total IA	-.278	.173	-.235
	Total RT	.163	.125	.186
	Total FL	-.078	.108	-.106

Regression analysis showed that financial goals, investment knowledge, investment attitudes, risk tolerance, and financial literacy have a significant effect on the herding behaviour of investors.

However, only financial goals, investment knowledge, and investment attitudes have a significant effect on the disposition effect of investors.

The Beta values indicate the relative importance of each independent variable in predicting the dependent variable. In the case of herding behaviour, financial goals have the highest Beta value, followed by investment knowledge, investment attitudes, risk tolerance, and financial literacy. In the case of disposition effect, investment knowledge has the highest Beta value, followed by financial goals and investment attitudes.

LIMITATIONS OF THE RESEARCH

Despite the efforts made to conduct rigorous research, several limitations need to be considered.

1)   This study is limited by the non-probability sampling method used to collect data. The sample may not be representative of the entire population of Indian investors and may not provide accurate results for generalization. Furthermore, the use of self-reported data in a cross-sectional design may lead to social desirability bias and may not provide accurate results.

2)   This study is limited to investigating the impact of a limited number of independent variables, namely financial goals, risk tolerance, financial literacy, investment knowledge, and investment attitudes on herding behaviour and disposition effect. Other factors such as market conditions, political and economic instability, and social influence may also affect investors' behaviour and were not included in this study.

3)   The study may be limited by the reliability and validity of the measurement instruments used. While the questionnaire was developed based on existing literature and was pilot-tested to ensure its validity, measurement errors may still occur.

4)   This study is limited by the scope of the research design, which is based on a quantitative approach. Qualitative research methods such as interviews and focus groups could provide additional insights into the factors that affect investors' behaviour towards goal-based investing.

CONCLUSION

It can be concluded based on the results of the tests conducted that Financial goals, investment knowledge, investment attitudes, risk tolerance, and financial literacy, that is all independent variables have a significant effect on the herding behaviour of investors.

However, only financial goals, investment knowledge, and investment attitudes have a significant effect on the disposition effect of investors.

Thus it has been proven that null hypotheses H1a, H1b, H1c, H1d, H1e, H2a, H2b and H2c suggest that Financial Goals, Investment Knowledge and Investment Attitudes significantly impact Herding Behaviour and Disposition Effect, whereas Risk Tolerance and Financial Literacy significantly impact only Herding Behaviour.

Null hypotheses H2d and H2e are disproved, thus alternate "Hypothesis that Disposition effect of investors is not significantly affected by risk tolerance", and "Disposition effect of investors is not significantly affected by financial literacy" will be accepted.

From this, it is concluded that Investors, Financial Advisors and concerned Policymakers must focus on Financial Goals, Investment Knowledge, Investment Attitude, Risk Tolerance, and Financial Literacy to control herding behaviour among investors.

Whereas, focus on Financial Goals, Investment Knowledge, and Investment Attitude is required to counter the Disposition Effect displayed by investors.

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Behavioral Intention of Gen Z Towards Investment in Cryptocurrency

Aarushi Joshi*
Dr Dippi Verma**

ABSTRACT

This study investigates the behavioral intention of Generation Z toward investment in cryptocurrency trading. A survey was conducted among a sample of 150 participants from the Gen Z population, aged between 18 to 24 years. The survey consisted of questions related to their knowledge, attitude, and perception of cryptocurrency trading. The data obtained was analyzed using SPSS software, employing correlation and regression analysis. The results revealed a significant positive correlation between the behavioral intention to trade in cryptocurrency and factors such as perceived ease of use, facilitating conditions, and social influence. However, there was a negative correlation between performance efficiency and the intention to trade in cryptocurrency. The regression analysis showed that perceived ease of use significantly predicted the behavioral intention to trade in cryptocurrency. The study concludes that Gen Z shows a high level of interest in cryptocurrency trading and highlights the factors that influence their behavioral intention toward it. These findings provide valuable insights for cryptocurrency service providers, financial regulators, and researchers in the field.

Keywords: *Behavioral Intention, Generation Z, Cryptocurrency, Perceived Ease of Use, Facilitating Conditions, Social Influence.*

INTRODUCTION

Cryptocurrencies have emerged as an alternative investment option and have gained significant popularity in recent years. Unlike traditional currencies, cryptocurrencies operate on a decentralized basis and are not governed by any central authority. The growing use of cryptocurrencies as a valid financial option has led to increased interest in studying the behavior of investors toward cryptocurrency investment. Generation Z, or Gen Z, is a cohort that was raised in a technologically advanced and internet-driven society.
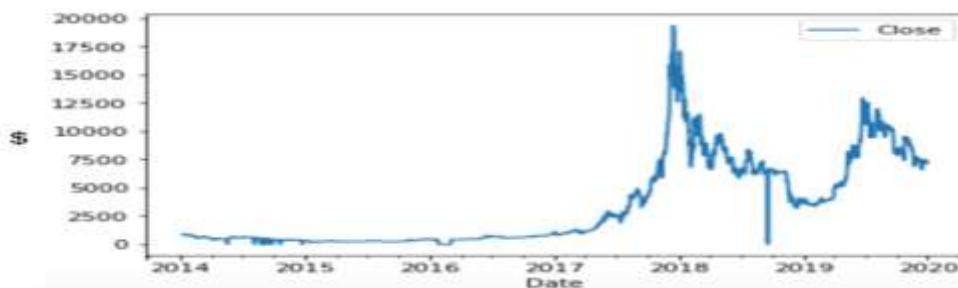
Figure 1: Trend line of Cryptocurrency

This generation has unique qualities that include a fondness for technology, social media, and entrepreneurship. As they begin to make investments, it is essential to understand their distinct investing

Aarushi Joshi, Student, School Of Business & Management, CHRIST (Deemed to Be University), aarushi.joshi@bba.christuniversity.in
Dr Dippi Verma, Assistant Professor, School of Business and Management, CHRIST (Deemed to be University)

preferences from earlier generations. This study aims to investigate how Gen Z feels about investing in cryptocurrencies and how their decision to invest is influenced by factors such as perceived risk, advantages, trust, and familiarity with the technology. By examining these variables, this study can provide insights into Gen Z's investment habits, which can help financial institutions, regulators, and cryptocurrency platforms create marketing plans to appeal to this set of consumers. The results of this study can contribute to a better understanding of cryptocurrency investment and add to the literature on how different demographic groups perceive and intend to use cryptocurrencies. Policymakers can use this research to design effective marketing strategies to attract and retain Gen Z investors. Understanding the factors that influence Gen Z's intention to invest in cryptocurrencies can be beneficial for future research and policy-making in the emerging field of cryptocurrency investment. Cryptocurrencies have gained significant popularity as an alternative investment option in recent years due to their decentralized nature and lack of central authority. With the growing use of cryptocurrencies as a financial option, there has been an increased interest in studying the behavior of investors towards cryptocurrency.

PROBLEM STATEMENT

Investors worldwide are interested in cryptocurrency as an alternative investment, especially among the younger generation, Gen Z, known for their innovation and reception of creative monetary items. This study aims to determine how Gen Z intends to invest in cryptocurrency, examining factors such as perceived advantages, risks, and trust. Results may contribute to the existing literature on cryptocurrency adoption by examining Gen Z's behavioral intention toward cryptocurrency as a mainstream investment.

OBJECTIVES OF STUDY

1) To understand cryptocurrency trading trends in India

2) To analyze the importance of the behavioral intentions of Gen Z in Cryptocurrency trading.

3) To investigate the relationship between Gen Z's demographic characteristics (such as age, gender, and income) and their behavioral intention toward cryptocurrency investment.

4) To contribute to the existing literature on cryptocurrency adoption and extend the understanding of the factors influencing the behavioral intention of Gen Z towards cryptocurrency investment.

5) To study the impact of government policies on cryptocurrency trading in India.

SCOPE OF THE STUDY

The scope of this study is to investigate Gen Z's behavioral intentions regarding cryptocurrency investment, focusing on the factors that influence their decision to invest and how social media and other information sources shape their perceptions. The survey will target Gen Z adults aged 18-25 with some knowledge of cryptocurrencies and an interest in investing in countries where cryptocurrency investment is legal and common. The study will use a quantitative approach to gather and analyze data, providing insights into the potential of cryptocurrency as a mainstream investment option. The findings can inform marketing strategies and educational programs to promote cryptocurrency adoption. However, the study's scope is limited to behavioral intentions and does not examine actual investment behavior or the long-term effects of cryptocurrency investing on financial well-being.

THEORETICAL FRAMEWORK

The UTAUT paradigm was applied and expanded to investigate Gen Z's behavioral intention to trade. The model, developed by Venkatesh et al. in 2003, is a combination of eight technology acceptance models and seeks to clarify users' initial information system usage intentions and subsequent behavior. The four main constructs of UTAUT are enabling factors, effort expectations, social influence, and performance expectations, which are moderated by factors such as gender, age, experience, and voluntariness of use. UTAUT was validated by Venkatesh et al. (2003) in a longitudinal study, accounting for around 50% of the variance in actual usage and 70% of the variance in behavioral intention to use.

There are four main components to the UTAUT:

- The definition of performance expectancy is the extent to which an individual believes that using the system will allow him or her to achieve advances in job performance.

- The degree of ease connected with the use of the system" is how effort expectation is defined.

- According to the definition of social influence, it is the extent to which a person believes that significant individuals think he or she should utilize the new system.

The phrase "facilitating conditions" refers to "the extent to which one believes that an institutional and technological framework is in place to enable the use of the system.
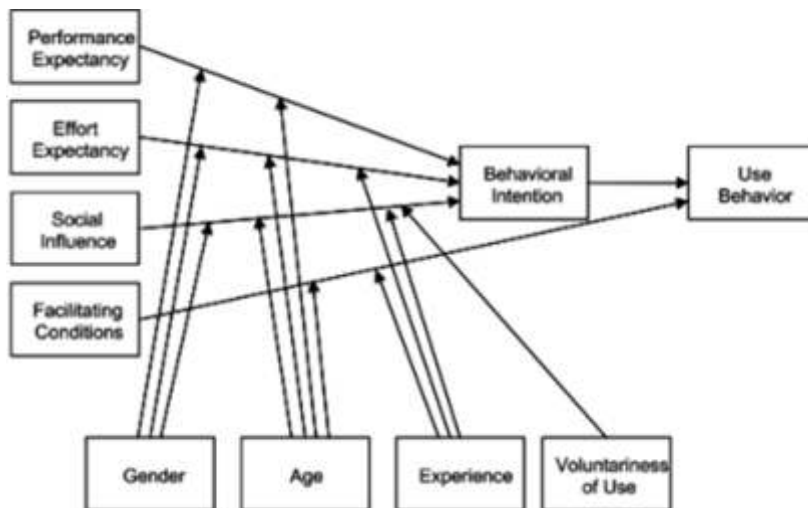
Figure 2: UTAUT Model

The theory was created by reviewing and combining the eight models that earlier research had used to explain how people used information systems: the theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, combined theory of planned behavior, and technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory. UTAUT was further validated by Venkatesh et al. (2003) in a longitudinal research, which revealed that it accounted for around 50% of the variance in actual usage and 70% of the variance in behavioral intention to use (BI).

RESEARCH MODEL AND HYPOTHESIS

The majority of studies that used the UTAUT model have expanded it by adding new variables or removing others to better fit the study's context. This is due to the fact that different countries have different rates of bitcoin investment. The model was also expanded in this study to fit the GenZ bitcoin trading setting in India. Examining the behavioral intentions of students regarding bitcoin investment. The system's actual use was not tracked in this study. It is expected that each of the four constructs will have a favorable impact on traders' behavioral intentions to trade cryptocurrencies. Also, Gen Z will be free to trade cryptocurrencies at their discretion. Moreover, Gen Z will have various alternatives to trade.
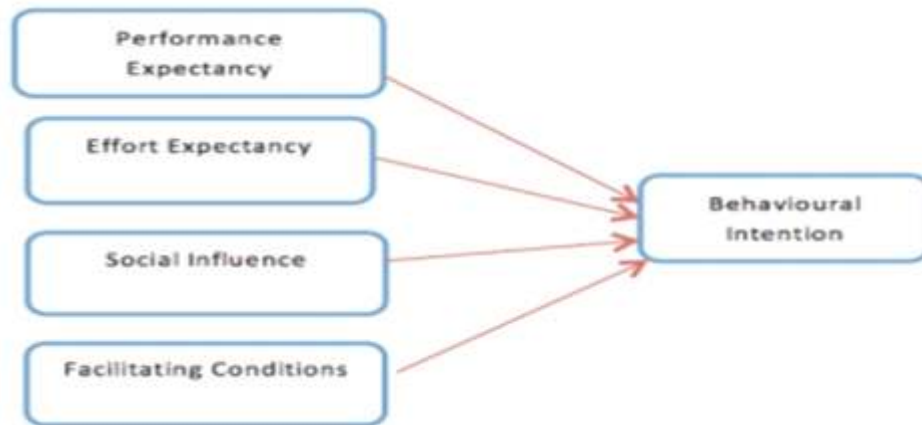
Figure 4: Model for Research

Performance Expectancy

Performance expectancy is the strongest predictor of behavioral intention to use several technologies in both voluntary and involuntary settings (Venkatesh et al., 2003). In the context of Cryptocurrency Trading, it represents the degree to which Gen Z believes that trading in Cryptocurrency will help to enhance their trading performance and gain better returns (Wang et al., 2009). Strengthening this belief will increase Gen Z's behavioral intention to adopt Cryptocurrency trading. The hypothesis can be explained as follows:

Hypothesis 1: Performance Expectancy has a positive effect on Behavioral Intention to trade in Cryptocurrency.

Effort Expectancy

Effort expectancy represents the GenZs' perception that trading in cryptocurrency will be easy and free of effort. Since many of the Gen Z in India are not exposed to many information systems (Ssekakubo, Suleman, & Marsden, 2011), this construct is an important determinant of Cryptocurrency Trading aspects in the Gen Z . It is expected that intention to trade in cryptocurrency will depend on whether respondents believe that cryptocurrency trading will be easy to use (Wang et al., 2009). Therefore, the proposition is derived as follows:

Hypothesis 2: Effort Expectancy has a positive effect on Behavioral Intention to trade in cryptocurrency.

Social Influence

Social influence represents the degree to which the respondents perceive their peers or important people believe they should trade in cryptocurrency (Venkatesh et al., 2003). Prior studies have demonstrated that a GenZs' decision is normally influenced by peers or by other people (Abu-al-aish& Love, 2013; Miller, Rainer, & Corley, 2003). Therefore, it is important to include social influence as one of the constructs in the modified research model. The proposition is derived as follows:

Hypothesis 3: Social Influence has a positive effect on Behavioral Intention to trade in cryptocurrency.

Facilitating Conditions

Facilitating conditions refers to the availability of resources to support the trading of cryptocurrency (Venkatesh et al., 2003). In the context of trading, the resources include the availability of mobile devices, laptops, reliable broadband connection, a bank account, an account available on cryptocurrency exchange with a category of balance, and other related resources. Therefore, the decision to trade for a Gen Z will be influenced by his or her perception of the availability of support services and resources to trade. The proposition is derived as follows:

Hypothesis 4: Facilitating Conditions has a positive effect on Behavioral Intention to perform cryptocurrency trading.

RESEARCH DESIGN

This study will use both descriptive and inferential statistics to analyze survey data gathered from the questionnaire. Descriptive statistics will be used to provide an overview of respondents' characteristics and summarize variables of interest, while inferential statistics will test hypotheses and investigate relationships between variables. Correlation analysis and regression analysis will be used to examine the relationship between demographic characteristics and behavioral intention to invest in cryptocurrencies. T-tests and ANOVA tests will be utilized to compare differences in behavioral intention between various demographic groups or levels of exposure to cryptocurrency. The results will be presented using tables, figures, and text for better understanding and communication. SPSS will be used as the statistical software for data analysis.

Data Collection Instrument

UTAUT Model

The study used a 5-point Likert scale with a range of 1 (Strongly Disagree) to 5 that was established by Venkatesh et al (Strongly Agree). The data collection tool was revised and changed to better fit the circumstances of this investigation. Table 1 shows part of the data instrument used to collect data (excluding demographic part).

Table 1: The UTAUT Model Construct

Construct	Code	Item
Performance Expectancy	PE1	I would find Cryptocurrency Trading useful for my daily life learning.
	PE2	Cryptocurrency Trading risk is not worth the return.
	PE3	Cryptocurrency platforms are going to be the upper hand to stock trading.
	PE4	I am ready to take any amount of risk associated with the high return of cryptocurrency.
Effort Expectancy	EE1	I prefer to trade in cryptocurrency.
	EE2	I am Gen Z and the effort I put to make money matters.
	EE3	As an investor my investing attributes are:
Social Influence	SI1	I am somewhat influenced by people around me trading in cryptocurrency therefore, I started trading.
	SI2	People who influence my behavior will think that I should trade in Cryptocurrency.
Facilitating Conditions	FC1	I have the resources necessary to trade in cryptocurrency.
	FC2	A help is available when I get problem in trading in cryptocurrency.
Behavioural Intention	BI1	I intend to trade in cryptocurrency in the future.
	BI2	I predict that cryptocurrency trading will flourish in future.
	BI3	I am planning to invest in cryptocurrency.

Scale labels: 1 – Strongly Disagree, 2 – Disagree, 3 – Neither Agree nor Disagree, 4 –Agree, 5 – Strongly Agree

ANALYSIS AND INTERPRETATION

Overview
This research uses SPSS software for data analysis and interpretation. The data is cleaned and prepared by adjusting and checking for missing values and outliers. Descriptive statistics are used to calculate the mean of variables like performance, effort, social influence, age, gender, income, and education level in the context of Gen Z's cryptocurrency trading intention. Inferential measures like t-tests, ANOVA, regression, and correlation analyses are used to test hypotheses and examine the relationship between variables. Interpreting the results and considering the study's limitations are crucial.

Reliability and Validity
Cronbach's alpha is a measure of internal consistency that looks at how well a measurement instrument's individual items measure the same concept. For research purposes, a Cronbach's alpha value of 0.7 or higher is generally acceptable.

In the case of the four items—performance, efficiency, social influence, and behavioral intention taken into consideration have a moderate level of internal consistency in this instance, as evidenced by Cronbach's alpha value of 0.7. A Cronbach's alpha value of 0.7 is still acceptable for research purposes, although a higher value would indicate greater internal consistency. It is essential to keep in mind that validity requires additional validity testing to determine the extent to which the measurement instrument accurately measures the construct of interest. Reliability is only one aspect of validity. However, the four items are measuring a related construct,

as indicated by Cronbach's alpha value of 0.7, which is a good starting point. The four items—performance, efficiency, social influence, and behavioral intention—have a moderate level of internal consistency, according to Cronbach's alpha value of 0.7. To determine whether these items are accurate and useful for measuring the construct of interest, additional validity testing is required.

Reliability Statistics

Cronbach 's Alpha	N of Items
.722	4

Figure 5: Cronbach Alpha

The above figure shows the reliability of 4 items of the construct which were performance, efficiency, social influence, and behavioral intention.

Frequency Distribution

Frequency table is an important tool for analyzing and summarizing discrete or categorical data. They are a crucial part of any data analysis because they make it easy to see patterns and visualize data in a clear and concise way.

Frequency Table

Gender

	N	%
	1048471	100.0%
0	47	0.0%
1	54	0.0%
2	3	0.0%

Figure 6: Frequency table for Gender

The next frequency description is about the gender where 0 is coded as female,1 is coded as male and 2 is coded as prefer not to say so the following shows that :
0 = 47; 1 = 54; 2 = 3.

Location (Currently Residing)

	N	%
	1048471	100.0%
1	12	0.0%
2	24	0.0%
3	21	0.0%
4	47	0.0%

Figure 7: Frequency Table for Location

The above figure shows the frequency table for locations where;
Population 5 Lakh - 10 Lakh=1

Population 10 Lakh - 25 Lakh=2
Population 20 Lakh - 25 Lakh=3
Population 25 Lakh and above=4

It states that 12 respondents belong to Category 1, 24 respondents to Category 2, 21 respondents belong to Category 3 and 47 respondents belong to Category 4 as explained above. It can be seen that the highest frequency belongs to a population of 25 lakhs and above that is Tier 1.

Annual Income

	N	%
	1048471	100.0%
1	24	0.0%
2	10	0.0%
3	38	0.0%
4	32	0.0%

Figure 8: Frequency Table Of Annual Income

When we talk about the frequency table of annual income, the inputs are:
Upto - INR 2,50,000=1
INR 2,50,001 - 5,00,000=2
INR 5,00,001 - 10,00,000=3
INR 10,00,000 and above=4

It states that 24 respondents belong to Category 1, 10 belong to Category 2, 38 belong to Category 3, and 32 belong to Category 4 as stated above. It can be inferred that the highest frequency of Gen Z belongs to category 3 that is they have an income of 5- 10 lakh.

I am involved in Investing.

	N	%
	1048471	100.0%
0	47	0.0%
1	57	0.0%

Figure 9: Investment Frequency Table

The frequency of people involved in investing is 57 and the frequency of people not involved in investing is 47. We can see that a high portion of the sample is involved in investing, therefore their behavior can be understood. The inputs here are:

yes=1

no=0

Education Qualification

	N	%
	1048472	100.0%
1	19	0.0%
2	70	0.0%
3	14	0.0%

Figure 10: Education Qualification

The next is an education qualification frequency here the inputs are:

High School Graduate=1Undergraduate=2Post Graduate=3It can be seen that the maximum population of Gen Z taken as a sample is undergraduate having a frequency of 70, there are 19 high school respondents and 14 postgraduate respondents.

Family Background

	N	%
	1048472	100.0%
1	51	0.0%
2	25	0.0%
3	19	0.0%
4	8	0.0%

Figure 11: Family Background

When it comes to the frequency table of family background the inputs are:

Business=1Service=2Profession=3Agriculture=4The highest frequency of respondents belongs to the business class with a frequency of 51 followed by the service class containing 25 respondents and profession with a frequency of 19 and 8 respondents from agricultural backgrounds.

Current Status

	N	%
	1048474	100.0%
0	17	0.0%
1	84	0.0%

Figure 12: Current Status

The inputs for the current status are:
Student=1
Working=0
At a glance, it can be analyzed that the maximum number of responses received falls under category 1 which symbolizes students. 84 respondents belong to Category 1 and 17 respondents belong to Category 0.

Descriptive Statistics
Descriptive analysis provides a foundation for additional analysis, such as inferential statistics, which is one of its main advantages. Additionally, it may assist in communicating the outcomes to stakeholders and making decisions based on data.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PE	104	1.00	5.00	3.0024	.81810
EE	104	1.00	4.33	2.4423	.67221
SI	104	1.00	5.00	2.8125	1.11953
FC	104	1.00	5.00	3.1779	1.06333
BI	104	.67	3.67	2.3782	.79107
Valid N (listwise)	104				

Figure 19: Descriptive Statistics

Performance Expectancy

The "performance expectancy" variable is a measure of how well people anticipate trading cryptocurrency. We can make the following observations based on the provided descriptive statistics:

Range: The variable's range of 1.00 to 5.00 indicates that responses to the performance expectancy question range from extremely low to extremely high.

Central Tendency: The mean of the variable is 3.0024, which recommends that the typical reaction to the exhibition anticipation thing is somewhat over the midpoint of the reach (i.e., 2.5).

Variability: The fact that the variable has a standard deviation of 0.818 indicates that the responses to the performance expectancy item are somewhat clustered around the mean. This suggests that participants' expectations of cryptocurrency trading performance are somewhat aligned.

Interpretation: With a mean of 3.0024, participants' expectations of their performance when trading cryptocurrency are slightly higher than the range's middle point. The fact that there is some variation in the expectations of the participants, as evidenced by a standard deviation of 0.818, but that the majority of responses are grouped relatively close to the mean indicates this variability.

Effort Expectancy

The "effort expectancy" variable probably measures how simple people think cryptocurrency trading platforms are to use. We can make the following observations based on the provided descriptive statistics:

Range: The fact that the value of the variable ranges from 1.00 to 4.33 indicates that the responses to the effort expectancy item fall within a relatively narrow range.

Central tendency: The fact that the variable has a mean value of 2.4423 indicates that, on average, participants think using cryptocurrency trading platforms takes a little less effort than the middle point of the possible range. This indicates that cryptocurrency trading platforms are generally regarded as somewhat user-friendly by participants.

Variability: The variable has a standard deviation of 0.67221, indicating that participants' perceptions of the ease of use of cryptocurrency trading platforms vary. However, the fact that this standard deviation is so small suggests that the majority of participants have the same perception of the effort required to use these platforms.

Interpretation: In a nutshell, the descriptive statistics of the "effort expectancy" variable indicate that, with relatively little variation, participants generally find cryptocurrency trading platforms to be somewhat user-friendly.

Social Influence

Range: The variable's range of 1.00 to 5.00 indicates that the values reflected in responses to the impact of social influence items are fairly diverse.

Central Tendency: The mean of the variable is 2.8125, which proposes that by and large, members see the effect of social impact on their digital money-exchanging choices to be fairly low. As a result, participants generally do not perceive that others have a significant impact on their cryptocurrency trading decisions.

Variability: The variable's standard deviation of 1.119 indicates that participants' perceptions of the impact of social influence on their cryptocurrency trading decisions are moderately variable. Others may have a significant impact on some participants, while others may not have any.

Interpretation: In conclusion, participants' perceptions of the "impact of social influence" variable's descriptive statistics indicate that there is moderate variation in how much participants think social influence influences their cryptocurrency trading decisions. Nevertheless, it is essential to keep in mind that these results are based on a single set of data and may not apply to all populations or contexts. To fully comprehend the factors that influence the impact of social influence on cryptocurrency trading decisions, additional research and analysis may be required.

Facilitating Condition

Range: The fact that the variable spans the value range of 1.00 to 5.00 indicates that the responses to the facilitating conditions item span a relatively broad range.

Central Tendency: The mean of the variable is 3.177, which recommends that by and large, members see the working conditions for cryptographic money exchanging to be fairly moderate. This indicates that participants generally consider the trading conditions for cryptocurrencies to be somewhat favorable, though not necessarily highly favorable.

Variability: The variable has a standard deviation of 1.063, indicating that participants' perceptions of the favorable conditions for cryptocurrency trading vary. While others may not find the circumstances particularly favorable, some participants may find them to be extremely favorable.

Interpretation: In a nutshell, the descriptive statistics for the variable titled "facilitating conditions" suggest that participants generally believe the conditions for trading cryptocurrencies to be somewhat moderate, though their perceptions may vary.

Behavioral Intention

Range: The scope of the variable is from 0.67 to 3.67, demonstrating that the reactions to the social goal thing cover a somewhat restricted scope of values.

Central Tendency: The fact that the variable has a mean value of 2.3782 indicates that, on average, participants intend to trade cryptocurrencies moderately. This indicates that participants are somewhat, but not necessarily strongly, inclined to engage in cryptocurrency trading.

Variability: The fact that the variable has a standard deviation of 0.791 indicates that there is some variation in the behavioral intentions of participants regarding cryptocurrency trading. Some participants may have a strong desire to trade, while others may have a less strong desire.

Interpretation: In conclusion, the descriptive statistics for the "behavioral intention" variable suggest that participants generally have a moderate level of intention regarding cryptocurrency trading, though their intentions may vary. Nevertheless, it is essential to keep in mind that these results are based on a single set of data and may not apply to all populations or contexts. To fully comprehend the factors that influence behavioral intention toward cryptocurrency trading, additional research and analysis may be required.

Correlation

Correlations

Correlations

		BI	I am planning to invest in cryptocurrency.	PE	EE	SI	FC
BI	Pearson Correlation	1	.657**	.549**	-.409**	.430**	.298**
	Sig. (2-tailed)		<.001	<.001	<.001	<.001	.002
	N	104	104	104	104	104	104
I am planning to invest in cryptocurrency.	Pearson Correlation	.657**	1	.506**	-.339**	.390**	.274**
	Sig. (2-tailed)	<.001		<.001	<.001	<.001	.005
	N	104	104	104	104	104	104
PE	Pearson Correlation	.549**	.506**	1	-.389**	.660**	.318**
	Sig. (2-tailed)	<.001	<.001		<.001	<.001	.001
	N	104	104	104	104	104	104
EE	Pearson Correlation	-.409**	-.339**	-.389**	1	-.375**	-.258**
	Sig. (2-tailed)	<.001	<.001	<.001		<.001	.008
	N	104	104	104	104	104	104
SI	Pearson Correlation	.430**	.390**	.660**	-.375**	1	.259**
	Sig. (2-tailed)	<.001	<.001	<.001	<.001		.008
	N	104	104	104	104	104	104
FC	Pearson Correlation	.298**	.274**	.318**	-.258**	.259**	1
	Sig. (2-tailed)	.002	.005	.001	.008	.008	
	N	104	104	104	104	104	104

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

Figure 21 : Correlation between Behavioral Intention and other Constructs

Behavioral Intention and Performance Expectancy

Using a correlation analysis, the current study investigated the connection between cryptocurrency performance efficiency and behavioral intention to trade. With a Pearson correlation coefficient of 0.549 at the 0.01 level (2-tailed), the findings demonstrated a significant positive correlation between behavioral intention to trade and cryptocurrency performance efficiency. This suggests that the discoveries of this study recommend that people who have serious areas of strength for an aim to exchange might be bound to put resources into digital currencies that are performing productively. Individuals and organizations interested in cryptocurrency investing and seeking to optimize their investment strategies can benefit from this information.

H0: Performance Expectancy has a positive effect on Behavioral Intention to trade in Cryptocurrency.

H1: Performance Expectancy has no positive effect on Behavioral Intention to Trade in Cryptocurrency.

Therefore Null is accepted and alternate is rejected.

Behavioral Intention and Effort Expectancy

To investigate the connection between cryptocurrency performance efficiency and behavioral intent to trade, a correlation analysis was carried out. A Pearson correlation coefficient of -0.409 at the 0.01 level (2-tailed) indicated a significant negative correlation between the two variables. This suggests that the likelihood of intending to invest in cryptocurrency decreases as a behavioral intention to trade increases. The fact that there is a negative correlation between planning to invest in cryptocurrency and behavioral intention to trade suggests that investors' decision-making processes may be influenced by other factors, such as risk tolerance, investment experience, or market volatility.

H0: Effort Expectancy has a positive effect on Behavioral Intention to trade in cryptocurrency.

H1: Effort Expectancy has no positive effect on Behavioral Intention to trade in cryptocurrency.

Therefore Null is rejected and an alternative is accepted.

Behavioral Intention and Social Influence

The connection between cryptocurrency social influence and behavioral intention to trade was examined using a correlation analysis. A Pearson correlation coefficient of -0.430 at the 0.01 level (2-tailed) revealed a significant negative correlation between the two variables. This suggests that the impact of social influence on the decision to trade cryptocurrency decreases as behavioral intention to trade increases. Independent of social influences, these findings highlight the potential role of individual beliefs and attitudes in cryptocurrency trading decision-making processes.

H0: Social Influence has a positive effect on Behavioral Intention to trade in cryptocurrency.

H1: Social Influence has no positive effect on Behavioral Intention to trade in cryptocurrency.

Therefore Null is rejected and an alternative is accepted.

Behavioral Intention and Facilitating Conditions

To investigate the connection that exists between the behavioral intention to trade and the conditions that facilitate cryptocurrency trading, a correlation analysis was carried out. A Pearson correlation coefficient of 0.298 at the 0.01 level (2-tailed) indicated a significant positive correlation between the two variables. This suggests that the enabling conditions for cryptocurrency trading also rise in tandem with the rise in behavioral intent to trade. This positive correlation suggests that people who have a strong behavioral intention to trade may be more likely to perceive favorable conditions for cryptocurrency trading, such as easy transaction processes or access to technology or information. However, it is essential to keep in mind that correlation does not always imply causation and to establish a causal relationship between these variables, additional research would be required. However, the fact that these findings suggest that both behavioral intention and facilitating conditions ought to be taken into consideration when making decisions regarding cryptocurrency trading may be helpful to cryptocurrency investors and traders who are looking to optimize their trading strategies.

H0: Facilitating Conditions have a positive effect on Behavioral Intention to perform cryptocurrency trading.

H1: Facilitating Conditions have no positive effect on Behavioral Intention to perform cryptocurrency trading.

Therefore Null is accepted and alternate is rejected.

Regression

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.394^a	.155	.147	1.212	.155	18.768	1	102	<.001	1.985

a. Predictors: (Constant), BI
b. Dependent Variable: I prefer to trade in cryptocurrency.

Figure 22: Model Summary of Regression

The relationship between the dependent variable's preference to trade in cryptocurrency and the predictor variable's behavioral intention was investigated using a regression analysis. With an R-value of 0.394 and an R Square value of 0.155, the outcomes demonstrated that the model had a significant overall fit. This indicates that the behavioral intention variable can account for approximately 15.5% of the variation in cryptocurrency trading preference. The estimate's standard error was 1.212, indicating an average deviation of 1.212 units from the actual values for the model's predictions. With 1 and 102 degrees of freedom, the F change value was 18.768, indicating that the model was significantly superior to a null model devoid of predictors. Further indicating that the model was significant, the F change value's p-value was less than 0.001.

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.585	1	27.585	18.768	<.001^b
	Residual	149.915	102	1.470		
	Total	177.500	103			

a. Dependent Variable: I prefer to trade in cryptocurrency.
b. Predictors: (Constant), BI

Figure 23: ANOVA Test

The significance of the relationship between the dependent variable's preference to trade in cryptocurrency and the predictor variable's behavioral intention was investigated using an ANOVA. The regression model's predictor variable, behavioral intention, had a mean square of 27.585 and a sum of squares of 27.585 in the ANOVA table, indicating a significant overall fit. With 1 and 102 degrees of freedom, the model's F value was 18.768, indicating a significant relationship between behavioral intention and preference for cryptocurrency trading. The fact that the p-value associated with the F value was less than 0.001 further indicates that there was a significant relationship between the preference to trade cryptocurrency and behavioral intention. These outcomes propose that conduct aim is a critical indicator of inclination to exchange digital currency. The ANOVA table demonstrates that the model fits the data well and that the relationship between behavioral intention and preference for cryptocurrency trading is not accidental. It is important to note that, even though this analysis demonstrates a significant relationship between behavioral intention and preference to trade in cryptocurrency, the effect size of this relationship was relatively small, with behavioral intention explaining only 15.5% of the variability in preference to trade in cryptocurrency.

Coefficients

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.587	.277		2.121	.036
	PE	.421	.108	.435	3.895	<.001
	SI	.077	.078	.108	.987	.326
	FC	.098	.065	.132	1.519	.132

a. Dependent Variable: BI

Figure 24: Coefficient of Behavioral Intention with other constructs

With all other predictors remaining constant, the unstandardized coefficient (B) for the predictor variables is -0.587, indicating that for a one-unit increase in PE, SI, and FC, we can anticipate a -0.587 unit decrease in the dependent variable, behavioral intention.

The average amount of error we would anticipate in estimating the true value of the coefficient if we took repeated samples from the population is reflected in the coefficient's standard error, which is -0.277. The coefficient has a t-value of -2.212, which indicates how many standard errors it has compared to zero. The coefficient is statistically significant if the t-value is greater than 2 (or lower than -2) and indicates that it is unlikely to have occurred by chance. The coefficient has a p-value of 0.036, which is lower than the usual threshold of 0.05, indicating that there is a statistically significant connection between PE, SI, FC, and behavioral intention.

As a result, we can conclude from this analysis that PEPSI, FC has a statistically significant negative relationship with behavioral intention, indicating that behavioral intention decreases as PE rises.

SUMMARY OF FINDINGS

An understanding of cryptocurrency trends in India

India is an attractive market for cryptocurrency trading due to its large population, rapid population growth, and high level of computer literacy. Cryptocurrency trading has gained popularity in India in recent years, despite the legal ambiguities and difficulties that it has encountered. Studies by Joshi and Jha (2019) and Srivastava and Seth (2020) attribute the growth in cryptocurrency trading to the emergence of cryptocurrency exchanges, the expansion of internet and smartphone use, and the increasing appeal of cryptocurrencies as an alternative investment option. The lifting of the Reserve Bank of India's ban on cryptocurrencies in 2020 also contributed to the increase in cryptocurrency trading. Additionally, the COVID-19 pandemic led to an increase in online trading, including cryptocurrency trading, as people looked for alternative means of investment and profit.

Despite the growth of cryptocurrency trading in India, there are still legal and regulatory issues that need to be resolved. The regulatory structure for cryptocurrency trading in India is still in its infancy, and the legal status of cryptocurrencies remains unclear. This uncertainty has left potential investors hesitant and uncertain. Joshi and Jha (2019) also highlighted the regulatory ambiguities and difficulties that the Indian bitcoin industry is currently facing. The growth of cryptocurrency exchanges, the expansion of internet and smartphone use, the lifting of the RBI prohibition, and the impact of the COVID-19 pandemic have all contributed to the growth of cryptocurrency trading in India. However, the legal and regulatory issues that remain unresolved raise concerns for potential investors. Clarification and stability in the regulatory structure are necessary to provide a stable environment for cryptocurrency trading in India.

Impact of Government Policies on Cryptocurrency Trading in India

The Indian government's efforts to regulate the country's cryptocurrency market have had a significant impact on the industry. In 2018, the Reserve Bank of India (RBI) issued a circular that forbade banks from dealing with cryptocurrency exchanges, leading many to shut down or move outside the country. However, in 2020, the Indian Supreme Court overturned the circular, giving a boost to the industry and resulting in increased trading volumes.

In 2019, the Inter-Ministerial Committee proposed a bill that would ban cryptocurrencies and impose severe penalties on those dealing with them. While the bill has not been approved, it highlights the uncertain regulatory landscape for cryptocurrencies in India.

In addition, the government has not yet formally recognized cryptocurrencies as resources, although there are indications that they may be taxed as such. The Indian Finance Minister has announced plans to introduce a bill to regulate cryptocurrencies in the current session of Parliament, taking a "calibrated" approach.

Overall, the Indian government's policies have had both negative and positive effects on cryptocurrency trading in the country, and the regulatory landscape remains uncertain.

CONCLUSION

This research sheds light on the behavioral intentions of Gen Z about cryptocurrency trading. The study shows that this demographic views cryptocurrencies as an investment opportunity with a positive outlook, but has concerns about security and lack of regulation. Gen Z's intention to trade cryptocurrency is influenced by social influence and perceived usefulness. These findings are useful for businesses and policymakers looking to develop strategies that address Gen Z's concerns and capitalize on their interests. Gen Z is a generation that has grown up with technology, and understanding their behavioral intentions is important. They are high-risk takers and more focused on performance than other impacts. The regression analysis carried out suggests that there is a significant negative relationship between PE and behavioral intention. This means that individuals from Generation Z who perceive trading in cryptocurrencies as not good for their performance are less likely to engage in it. Overall, the analysis shows that members of Generation Z may have varying levels of intention to trade cryptocurrency, influenced by factors such as efficiency, investment plans, social influence, and facilitating conditions. Understanding these factors is crucial for promoting cryptocurrency adoption among these demographics.

FUTURE SCOPE FOR STUDY

These are a few possible areas for additional research. Understanding what influences Generation Z's decision to invest in cryptocurrencies: Analysts could explore the different elements that rouse Gen Z people to put resources into digital money, like monetary objectives, risk hunger, and saw advantages of digital currency over conventional speculations. Examining the influence of social media on the cryptocurrency interest of Generation Z: Since Generation Z is the most connected generation to the internet, it would be interesting to see how social media platforms affect how they know about and perceive cryptocurrency. Investigating the job of training in Gen Z's reception of cryptographic money: Researchers could investigate the role that educational initiatives, such as online courses or educational apps, play in shaping Gen Z's attitudes toward cryptocurrency because cryptocurrency is a complex and technical subject. Education and knowledge sharing may play an important role in driving adoption among Gen Analyzing the influence of societal and cultural factors on the perception of cryptocurrency held by Generation Z: Understanding how the broader economic climate, media

coverage, and peer influences influence Gen Z's understanding and adoption of cryptocurrency would be helpful. Examining the connection between digital money use and monetary prosperity among Gen Z: It would be fascinating to investigate how cryptocurrency use affects Gen Z's financial well-being, including their savings, debt, and financial security, as the technology spreads.

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Customer Perception Towards Push Notification Marketing Strategies Practiced By Companies

Aalok Agashe*
Dr Boopathy S**

ABSTRACT

The study revealed that a majority of people, irrespective of their age group, are unhappy with the frequency with which mobile applications send notifications daily. Often, users miss out on important notifications because they are buried under the pile of not-so-useful notifications. Moreover, the research found that the content used in push notifications needs to be appropriate and not offensive, as it can have a significant impact on user perception. It is important to note that while push notification marketing can be a powerful tool for businesses to engage with their customers, it needs to be used judiciously. Too many notifications can lead to user fatigue, resulting in users turning off push notifications or even uninstalling the application altogether. On the other hand, notifications that are not relevant or contain inappropriate content can leave a negative impression on the user. The study also found that different application categories send varying numbers of push notifications. For instance, social media applications tend to send the most number of notifications, followed by e-commerce and news applications. This finding can be useful for businesses to fine-tune their push notification strategy and ensure that they are sending the right messages to their customers at the right time. In conclusion, push notification marketing is a valuable tool for businesses to engage with their customers. However, it needs to be used judiciously, keeping in mind the preferences and perceptions of users of different age groups. This study highlights the importance of understanding user behavior and preferences while designing push notification marketing campaigns. By doing so, businesses can ensure that they are not only reaching out to their customers but also engaging with them in a meaningful way. With further research and analysis, it is possible to gain deeper insights into user perceptions and preferences, leading to more effective push notification marketing strategies.

Keywords: *Push notification marketing, User perception, Appropriate content, Application categories, User behavior*

INTRODUCTION

Push notification marketing has become a popular marketing strategy over the years due to its effectiveness in reaching customers on mobile or desktop devices. Push notifications are based on "push" technology, which enables companies to send brief messages to customers that can promote products, provide discounts, or announce new features. This approach has been successful because it can deliver attention-grabbing messages directly to users' home screens or notification centers, where they can be easily viewed and acted upon. One of the primary advantages of push notifications over traditional email marketing is their higher open rate. According to a study by Localytics, push notifications have a 90% open rate, while email marketing only has a 25% open rate. This indicates that push notifications are a more effective way of reaching customers and communicating important messages. To ensure the effectiveness of push notification marketing, companies must personalize their messages to make them more relevant to their target audience. Personalization can be achieved by using the user's name, location, or other relevant data. This creates a sense of familiarity and makes the message more likely to be read and acted upon. Timing is also a critical factor in the success of push

Aalok Agashe*, Student, School of Business Management, CHRIST (Deemed to be University, Bengaluru)
Dr Boopathy S **, Assistant Professor, School of Business Management, CHRIST (Deemed to be University, Bengaluru)

notification marketing. Notifications should be sent at the right time when the user is most likely to be receptive to the message. For instance, if a company promotes a lunch special, the notification should be sent during lunch hours. This increases the chances of the user taking action and making a purchase. Another important aspect of push notification marketing is A/B testing. This involves sending two versions of a message to a subset of users to determine which message is more effective. By analyzing the results, companies can optimize their messaging and targeting for better results. This approach helps companies refine their push notification marketing strategy and improve the ROI of their marketing efforts. However, it is essential to use push notifications sparingly to avoid overwhelming or annoying users. Companies should strike a balance between the frequency and relevance of notifications. Too many notifications can lead to users opting out or uninstalling the app, resulting in a loss of potential customers. Therefore, companies should ensure that their notifications benefit users and provide valuable information.

Problem Statement: To understand whether the push notification marketing strategies used by companies are liked or disliked by customers in reality and if they feel these notifications are large in number.

RESEARCH OBJECTIVES:

1. To understand the profile of customers who prefer Push Notification Marketing.

2. To analyze the customer perception towards push notification marketing strategies used by companies for promotion.

3. To determine the impact of push notification marketing on the buying behavior of the customers.

4. To identify the applications that make the most use of Push Notifications.

Scope of Research

The aim of this study is to find out the correlation between different age groups and how they perceive Push Notification Marketing strategies. It also aims to find out whether the customers feel the number of notifications has an impact on their buying behavior. This study also aims to find out whether the customers like the content of these notifications or if it is vague and offensive. Apart from this, this study aims to find out which application, in particular, sends the most number of notifications to customers and whether customers like it or not. The scope of this research is that while filling out the questionnaire, the customers can also get a better understanding of which application is sending them notifications, how many applications are there on the mobile phone, and how many of them are useless. This can help them make the necessary changes to their mobile phone system and settings by giving and denying certain permissions to some of the applications.

Hypothesis of Research

H_1: There is no significant difference in perception of push notification between age groups.

H_2: There is no significant correlation between the content of push notifications and the perception of customers.

H_3: There is no significant correlation between a number of notifications and the perception of customers.

Variables of the study

The variables in this study are as follows:

Variable 1: Age group: The respondents will be divided into 5 age groups; below 18, 18-30, 30-40, 45-60, and above 60. This will help in identifying which age groups are positively perceiving the notifications and which are negatively perceiving them.

Variable 2: Content of notifications: Many people see these notifications differently and have different opinions on them. Thus this variable will help to understand are these notifications have good content or vague content

Variable 3: Number of notifications: Not everyone receives the same number of notifications as everyone has a different set of applications installed on their mobile phones. Thus this variable will help us determine which application sends the most number of notifications and how many people are liking these many notifications and how many are not.

Variable 4: Perception of customers: This is the most important variable of all as it will be used to prove all the hypotheses and is what I am measuring in this research.

Instrument Design
In this research, I have used a 5-Point Likert Scale where all the questions in the questionnaire had only 5 options to choose from which made it better for scoring and analysis purposes. In scoring, a few questions were used for reverse scoring and some for regular scoring for a better analytical purpose.

Method of data collection
Data collection was done using Google Forms. Google Forms is a tool where a questionnaire can be circulated via a link and collect responses. A questionnaire was formed which covered the required topics for the analysis to be performed. Primary data: Structured questionnaire, secondary data: Journals, articles, previously published paper

Sample size and sampling technique
The total metro area population of Bengaluru is 13,608,000 and that of Pune is 6,975,000 which total comes down to 20,583,000. Size of Sample: 316. Sampling Technique: Snowball Sampling and Convenient Sampling. Selecting participants for a convenient sample entails choosing people who are open and reachable.

Statistical design
The aim of this study is to find out the correlation between different age groups and how they perceive Push Notification Marketing strategies. Thus the design of this study is a "Correlational Study". In this study, I aim to find the relationship between all age groups and how they perceive the reception of different notifications.

Analysis

Table 1- Cronbach Alpha Value

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha based on standardized items	Number of items
0.752	0.758	16

The table shows Cronbach's Alpha Value calculated to check the Reliability of the study. This is carried out only on the first 50 respondents to check if the research is reliable or not and to make any necessary changes if required.

Hypothesis 1: There is no significant difference in perception between the age group of customers towards push notifications.

Table 2- Descriptive Statistics of Age Groups

SR no	Age Group	Mean Score	Standard Deviation	Percentage
		STATISTICS		
1	Below 18	55.5	9.289	16.73694
2	18-30	52.13	5.452	10.45847
3	30-45	52.93	7.725	14.59475
4	45-60	55.04	4.996	9.077035
5	Above 60	54.92	3.861	7.030226

A descriptive statistics test was carried out on each age group of respondents individually to get the mean of all age groups and the standard deviation of all age groups. When the standard deviations of all age groups were compared, it was found that the deviation was very large in all age groups. It ranged from 3.861 to 9.289.

Table 3- T-Test of all age groups

SR no	Age Group	t value	p value
		T Test	
1	Below 18	16.899	<.001
2	18-30	101.205	<.001
3	30-45	43.872	<.001
4	40-60	131.279	<.001
5	Above 60	51.284	<.001

t value is equivalent to the number of standard deviations away from the mean of the distribution. The t-test value is considered to be of significance if it is greater than 1.96, here all the age groups have a significant t-value. The significance level is used for stating the generalizability of the results in the population. Here the p-value obtained is <.001 for all the age groups. The t-value obtained for all age groups is also inconsistent and it ranges from 16.899 to 131.279.

Table 4- Correlation between all age groups

Correlation	
Perception	0.082

The table above shows the results of the Correlation between all age groups. The master total (perception) should be between 0 to 1 but inclining more towards 1. Here the total is .082 which is less significant.

Table 5- Correlational Study between all age groups

	Groups	V1	V2	V3	V4	V5
V1	Pearson Correlation	1	0.093	0.143	0.056	0.128
	N	16	16	16	16	16
V2	Pearson Correlation	0.093	1	.952**	.912**	.986**
	N	16	16	16	16	16
V3	Pearson Correlation	0.143	.952**	1	.962**	.985**
	N	16	16	16	16	16
V4	Pearson Correlation	0.056	.912**	.962**	1	.947**
	N	16	16	16	16	16
V5	Pearson Correlation	0.128	.986**	.985**	.947**	1
	N	16	16	16	16	16

This table indicates the correlational study between all age groups. Here,

V1 indicates: Age group of below 18
V2 indicates: Age group of above 60
V3 indicates: Age group from 30-45
V4 indicates: Age group from 18-30
V5 indicates: Age group from 45-60

The Pearson Correlation value ranges from -1 to 1 where a value near to -1 indicates negative correlation and a value near to 1 indicates positive correlation. A value close to 0 indicates a less/insignificant correlation between groups. Here the ** marked values are important as they are near to 1 and indicate a positive correlation.

When the standard deviations of all age groups were compared, it was found that the deviation was very large in all age groups. It ranged from 3.861 to 9.289. Hence we can say they are not significant. The t-value obtained for all age groups is also inconsistent and it ranges from 16.899 to 131.279. The Correlation value between V1 and all other age groups is not significant, which means the behavior is not the same and they perceive notifications in different ways than others.

Accepted Alternate hypothesis: There is a significant difference in perception between the age group of customers towards push notifications.

Hypothesis 2: There is no significance in the content of notifications received by the customers.

Hypothesis 3: There is no significance of the number of notifications received by the customers.
Table 6- Descriptive Statistics of content and number of notifications.

Statistics				
SR no	Group	Mean	Standard Deviation	Percentage
1	Content of notifications	20.87	3.518	16.85673
2	Number of notifications	31.97	3.436	10.74758

tification and a number of notifications. The mean score obtained for the content of notifications is 20.87 and the Standard Deviation is observed to be 3.518. The mean score obtained for the number of notifications is 31.97 and the Standard Deviation is observed to be 3.436.

Table 7- T-Test of content and number of notifications

T Test			
SR no	Group	t value	p value
1	Content of notifications	103.598	<.001
2	Number of notifications	164.374	<.001

the number of notifications is 164.374. The significance level is used for stating the generalizability of the results in population. Here the p value obtained in both, the content and number of notifications is <.001.

Table 8- Correlation of content and number of notifications

Correlation		
SR no	Group	Master Total
1	Content of notifications	0.835
2	Number of notifications	0.835

ifications related questions and number of notifications related questions separately. The master total should be between 0 to 1 but inclining more towards 1. Here the total is .835 in both cases which is more significant.

Hypothesis 2

Here, the correlation between the content of notification and perception of the customers was done and the value obtained was very significant (0.835).

The correlation between the content of notification and perception of the customers was done and the value obtained was very significant (0.835). Hence this hypothesis can be accepted and alternate hypothesis can be rejected

Accepted Null Hypothesis: There is no significance in the content of notifications received by the customers

Hypothesis 3

Here, the correlation between the number of notifications and perception of the customers was done and the value obtained was very significant (0.835).

The correlation between the number of notifications and perception of the customers was done and the value obtained was very significant (0.835). Hence this hypothesis can be accepted and alternate hypotheses can be rejected.

Accepted Null Hypothesis: There is no significance of the number of notifications received by the customers

INTERPRETATION

The purpose of this research is to find out how customers perceive the Push Notification Marketing strategies used by various applications. It is aimed at understanding how customers feel about these notifications, whether they are too repetitive, too full of content, etc.
The variables used in this research are as follows:

1. Age group: the respondents were divided into 5 different age groups which was used to identify how age group wise the perception of push notification changes

2. Content of the notifications: the content used by companies in the notifications can be perceived in different ways by customers hence it is used as a variable.

3. Number of notifications: many customers like receiving notifications while many do not, hence it is another variable in this study.

4. Perception of customers: the most important variable is how different customers perceive these notifications.

A questionnaire was circulated among the people of Pune and Bangalore using snowball and convenience sampling methods. A total of 316 responses were recorded in this questionnaire. Apart from that, there are many different reference articles, journals, and papers. Following are some results of the questionnaire.

Figure 1: Influence of notifications on buying behavior

How many times do notifications influence your behaviour? Do you end up buying the product offered because of the notification?
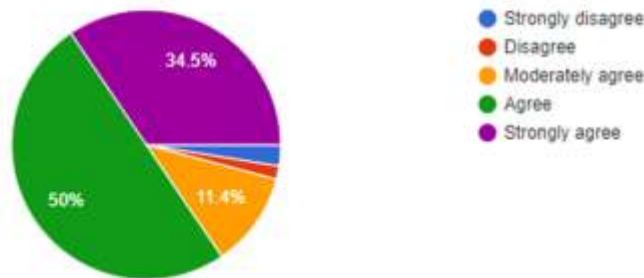
316 responses
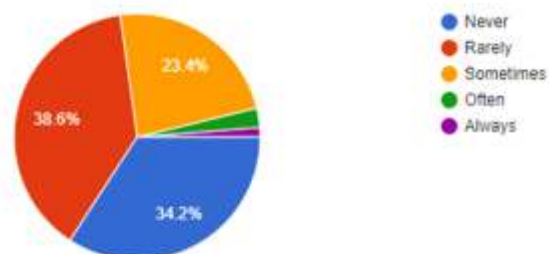
The above pie chart mentions the percentage of people who end up purchasing/buying the product because of the push notification marketing strategies. This pie chart shows that more than 34% of people (108) never get influenced by these notifications and almost 39% of people (122) rarely end up buying these products. Only 4% of the people (13) end up buying the products and are highly influenced by the notifications.

Figure 2- Response on limitation to number of notifications.

Notifications are good but should be limited in number

316 responses

- Strongly disagree
- Disagree
- Moderately agree
- Agree
- Strongly agree

The pie chart mentions the responses given to the statement 'notifications are good but should be limited in number'. More than 84% of the respondents (267) agree and strongly agree with this statement and believe that notifications, if sent in limited numbers, are a good way of marketing.
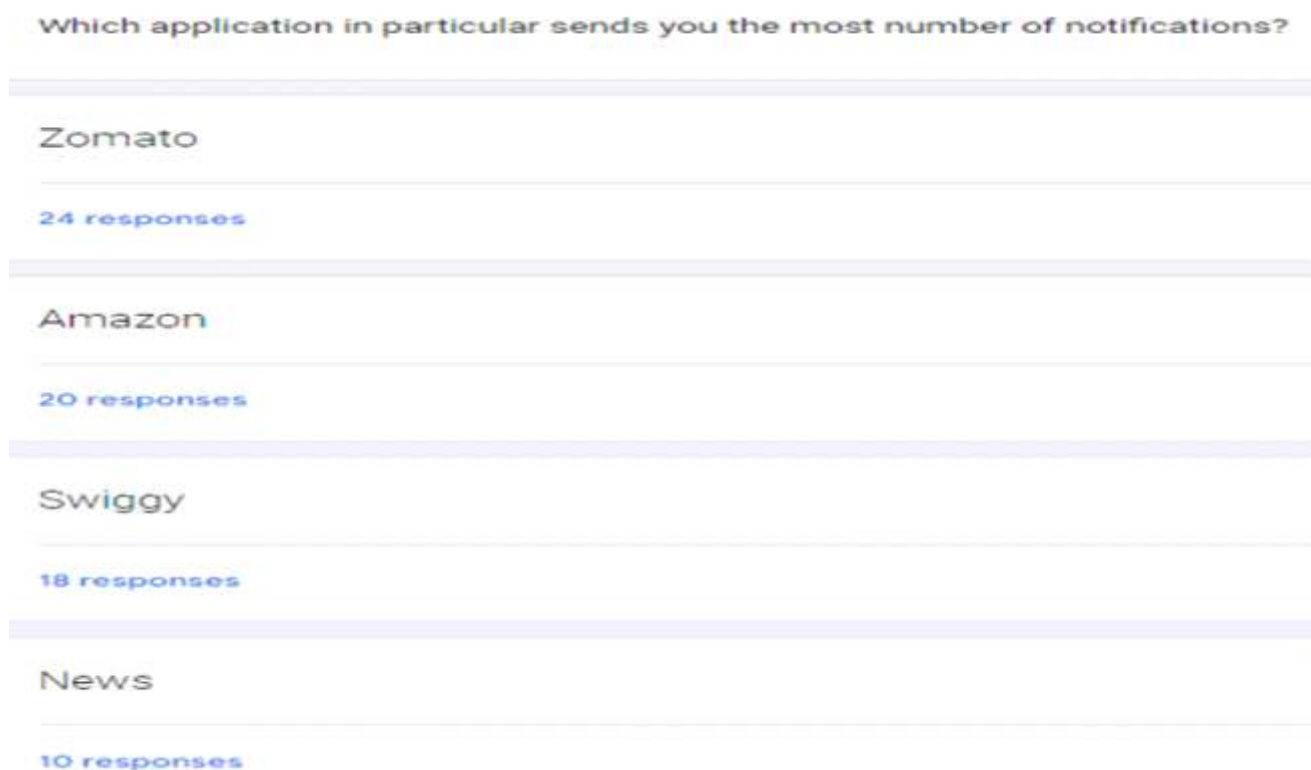
Figure 3- Ranking of applications on the number of notifications they send.

Rank the category of applications which send you the most notifications (high to low)

The image above is the question on ranking done by respondents based on the number of notifications applications send to them. It is observed that News applications and Food delivery applications like Swiggy and Zomato send the most number of notifications according to 164 respondents (51.8%) as they are voted the most for 1st preference. Online shopping applications like Amazon and Myntra are selected by 116 respondents (36.7%) as the most popular among people for their 2nd preference. In 3rd preference, respondents have juggled between News, Food delivery, and online shopping applications as these categories of applications send the most notifications. In the 4th preference, people have chosen Health and Fitness tracking applications to send more notifications (52 respondents). Online payment applications like Gpay and Paytm have been chosen as 5th preference by 53 respondents (16.7%) and Ticket booking applications like Bookmyshow, Redbus, etc have been chosen as 6th preference by 93 respondents (29.4%).

Figure 4- Most notifications sent by an application

Which application in particular sends you the most number of notifications?

Zomato

24 responses

Amazon

20 responses

Swiggy

18 responses

News

10 responses

This image shows the most responses received on particular applications which send the most number of notifications. Zomato sends the most number of notifications according to 24 respondents and in line are Amazon (20 respondents), Swiggy (18 respondents) and News applications (10 respondents).

SUMMARY OF FINDINGS

This paragraph describes the methodology of a research study. The study starts with the formulation of objectives and hypotheses that were aligned with the aim and scope of the research. This means that the researchers had a clear idea of what they wanted to achieve with their study and what their research questions were. To gather data, the researchers used two sampling methods - convenience and snowball. A convenient sampling method involves selecting participants who are readily available and easy to access. Snowball

sampling, on the other hand, involves identifying initial participants and then asking them to refer other potential participants. The researchers received a total of 316 responses to their questionnaire. After collecting the data, the researchers scored the responses using regular and reverse scoring methods to obtain the total scores of each individual. Regular scoring assigns a higher score to a higher response, while reverse scoring assigns a higher score to a lower response. The researchers then conducted three statistical tests using SPSS software - descriptive statistics, T-Test, and correlation. Descriptive statistics were used to summarize the data and provide an overview of the sample. T-Test was used to compare the means of two groups, and correlation was used to examine the relationship between the two variables. Finally, the researchers used a few questions from the questionnaire to check if the study objectives were met. This implies that the researchers evaluated whether the data they collected were relevant to their research questions and helped them achieve their study objectives.

CONCLUSION

From the analysis and findings, we can conclude the following things from this research.

1. The respondents were 61% male and 39% female.

2. Nearly 61% of the people have less than 50 applications on their mobile phones.

3. The application category that sends the most number of notifications is food delivery applications like Swiggy and Zomato.

4. The application that sends the most number of notifications is Zomato according to most of the respondents.

5. Most of the respondents feel that the number of notifications is too much and that important messages are being missed because of them.

6. It is evident that respondents prefer less number of notifications but they should be better in quality and not the opposite.

7. There is a difference between how respondents of different age groups perceive these notifications.

8. The content and the number of notifications one receives matters a lot as it varies from person to person as to how they will perceive them.

From the interpretation, we can also understand that nearly 75% of people do not buy or rarely buy the products offered by companies that are marketing through push notification marketing. Almost 85% of the respondents agree/strongly agree with the statement 'notifications are good but should be limited in number'. People receive too many notifications daily and feel like they should receive fewer notifications than what they do today. It is also observed that more than 50% of respondents feel that the applications they have from the food delivery category like Swiggy, Zomato, etc send them the most number of notifications combined as they serve 24x7. The application that sends the most number of notifications according to respondents is Zomato, which is the most common answer among all.

FUTURE SCOPE OF THE STUDY

The study will not be able to reach thousands of people out there who might be having issues with the notifications they receive daily from numerous applications. It is observed here that many people are not liking

the frequency with which the applications send notifications and a major concern is that important notifications might be missed. Another limitation was that some of the respondents were not completely consistent with their answers and might lead to an error. This type of study is also a bit time consuming as it takes a lot of time to collect primary data from a questionnaire. Thus in future, it can be carried out on a larger scale to determine even more accuracy and the exact number of people who are not in favor of so many notifications to be received daily by the same applications.

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Exploring Uncharted Avenues For Niche B2b Software Companies: Innovative Digital Marketing Strategies In New India To Expand Reach To New Audiences

*Dhairya Veerwani**
*Dr. Daitri Tiwary***

ABSTRACT

Marketing strategies are dependent on leads but lead generation is an area that requires continuous efforts and incremental innovation. This research aims to enhance an existing database of leads systematically. We employ a well-defined methodology integrating primary and secondary research. The study identifies avenues for new contacts such as associations, events, alumni groups, and more. We employ an "*impact effort matrix*" to guide resource allocation, considering factors like availability and reach. Catering to a niche knowledge-based industry to market an expert platform, we target IIT Alumni Associations, Industry Associations, and specialized database & telemarketing Firms for new contacts. The study's structured approach expands the database for future outreach, partnerships, and networking. This systematic, resource-conscious methodology ensures reproducible and impactful contact acquisition.

Keywords: B2B Software, Innovation, Digital Marketing

INTRODUCTION

Niche knowledge-based market segments do not conform to traditional marketing approaches. This is partly because the prospects, users, and the technology, product, or platform in the offering are distinct in nature. This study aims to systematically enhance an existing database of leads for one such innovative knowledge-based platform offering B2B software solutions. The primary objective of this study is to enrich an existing database with new contacts in a reproducible manner. To accomplish this goal, a meticulously devised methodology has been constructed, amalgamating both primary and secondary research modalities. The study's primary focus resides in discerning and establishing novel conduits for procuring these contacts, which encompass a diverse assemblage of avenues, including but not limited to associations, media conduits, events, alumni associations, social media platforms, and other prospective sources.

To judiciously assess the ramifications of each avenue and prudently allocate resources, a comprehensive framework known as the "*impact effort matrix*" has been conceptualized. This matrix undertakes a multifaceted appraisal of each avenue, taking into account diverse variables, such as resource availability, financial investments required, and the extent of reach achievable through these avenues. By meticulously contemplating these variables, the study team is empowered to ascertain the most suitable and viable avenues for acquiring novel contacts.

In light of the three distinct sources delineated for the acquisition of fresh contacts, the foremost among these is the IIT Alumni Associations. These associations are deemed invaluable assets, fostering networking

Dhairya Veerwani* Birla Institute of Management Technology, Greater Noida 201306. dhairya.veerwani24@bimtech.ac.in
Dr. Daitri Tiwary** Assistant Professor, Birla Institute of Management Technology, Greater Noida 201306.
daitri.tiwary@bimtech.ac.in

opportunities and harboring an expansive reservoir of alumni members who could potentially possess pertinent contacts. Through a strategic collaboration with these associations, the study endeavors to leverage their extensive networks, thereby accruing fresh contacts to be incorporated into the database.

The second source entails Industry Associations, communal entities that bring together professionals operating within specific industries or sectors. Through active engagement with these industry associations, the study's research team can secure access to professionals deeply immersed in their respective domains. This collaborative interaction presents the prospect of acquiring invaluable contacts, thereby substantively augmenting the database's scope and depth.

The third delineated source comprises specialized entities, known as Database & Telemarketing Firms, which specialize in the meticulous curation and maintenance of diverse contact databases. By forging partnerships with these specialized firms, the study stands to gain entry into their expansive repositories, potentially housing contacts pertinent to inclusion within the evolving database.

Embracing this meticulously structured paradigm, the study aspires not only to extend the database's ambit but also to establish an intricate and encompassing web of contacts. This fortified database, infused with an array of newfound connections, assumes the role of an invaluable resource poised to underpin forthcoming initiatives. From expansive outreach campaigns to strategic alliances, collaborative ventures, and networking pursuits, this enriched database stands as an enduring asset. The methodology meticulously employed in this study ensures that the process of cultivating novel contacts adheres to a systematic and replicable course of action, underscored by a judicious evaluation of available resources and the anticipated impact of each initiative.

REVIEW OF LITERATURE

Roberto Mora Cortez and Wesley J. Johnston's (2017) paper focuses on how business-to-business (B2B) marketing theory has been developed over time and gained insights about its development in the future. The research paper begins by stating the history of industrial marketing now commonly known as B2B marketing and also focuses on transactional interactions. It then talks about the shift towards relationship advertising which emphasizes long-term trust-building relationships with customers, and sellers. Roberto and Wesley also try to focus on the new growth of network theory and how it has been impacting the stakeholders in the B2B market scenario. The relationship between the buyer and seller is about the value being created, services being provided up to the mark, and the customer experience. They also provide us with an overall view of the future advancements in the direction of B2B marketing, indicating that it will keep on shifting and adapting as business is considered to be in a dynamic environment. It also suggests that further study should focus on areas such as customer engagement, sustainability, technology-enabled marketing, and the effects of global trends in B2B markets. Lastly, the literature of the paper points out the importance of B2B marketing theory, while using the disciplines of psychology, sociology, and economics.

Brennan and Croft's (2012) study helps to understand the overview of the present state of the use of social media in B2B marketing and its branding. The paper focuses on the role of social media in exploring the B2B marketplace, identifying key trends, and identifying gaps in reaching a potential customer. It begins with highlighting the importance of social media in today's business environment and how it has been increasing in the past decade.

The study talks about businesses using social media platforms such as LinkedIn, Twitter, and YouTube to share communications about the company, new product launches, updates on industry trends, and regular interactions to connect with the target audience.

The review also mentions the challenges a business faces while using social media platforms to promote the brand and reach the target audience can be whether the audience can trust the brand, whether the content is relevant to the people, and even after all this is social media providing any results to the brand or not. It also suggests that even though every business has been adopting social media there is still a need to research more about the best channels and identify strategies that can be used by businesses to have the most impact.

Wilcox & Sussman (2014), the study focuses on generating leads for B2B from social media. The writers mentioned the Social Media Performance model and how it can help businesses use social media by generating leads and increasing brand awareness. The study begins by highlighting the trends of using social media, how important it has become for businesses to have a social media presence, and how to use these platforms. The key components of the models are strategy, integration, implementation, and impact. The strategy area focuses on the importance of collaborating the business objectives to the social media strategies, it involves setting clear goals, target audiences, and which platform to use, which will lead to an increase in lead generation for the business.

The implementation focuses on how the business is reaching its audiences \, through social media activities. The business needed to create engaging and relevant posts and how the business is driving traffic to their page/ account. Wilcox and Sussman also provide some insights for implementation can be running a social media campaign, leveraging LinkedIn for prospecting clients, or participating in thought leadership.

The impact component focuses on assessing the returns on the strategies that were implemented and how many lead counts were generated through the activity such as a social media campaign. It is important to measure the impact this can be done through website traffic, likes, comments, engagement rates, and conversion rates.

In conclusion, "Lead-generating Social Media Strategies using the Social Media Performance Model: The B2B connection" provides a comprehensive outlook on social media use in generating leads for a business.

RESEARCH METHODOLOGY

The company is looking to broaden its client base beyond its existing database. However, there is no structured, sustainable, and replicable mechanism available to accomplish this. Also, to identify the new sources as marketing avenues to capture the relevant customer base. A defined process can lead to more efficient and consistent increments in a company's database. The main focus of the project includes the identification of different sources for getting marketable contacts apart from the existing database; designing a repeatable mechanism for the engagement with the contacts; prioritizing mediums of engagement based on impact and effort matrix and delivery of a systematic approach that can be implemented in the future.

We thus frame our research question as, "*What are the new potential sources and marketing avenues that can be identified to capture the relevant customer base for the company and contribute to a more efficient and consistent increment in their database?*"
The research objectives are as follows:

RO.1 To discover new avenues and ideas for promoting products and reaching out to prospective customers.

RO.2: To increase engagement through different defined activities and tactics, leading them to the database as marketable contacts.

The scope of the study is limited to focusing on Geo Small Names territories and bringing new names while

ensuring GDPR Compliances sources can be used to achieve the goal. The research also conducted pilot testing for the sources. Student/ University and Major named Accounts were out of the scope of the study.

Primary Research

The initial stage of research was focused on detailed discussions with various stakeholders on whom this study will make an impact. The primary stakeholders were IN- the marketing team, and sales team, as well as discussions with well-known database companies such as Dun & Bradstreet and Demandify. Also, 10 employees of the company who were also a part of Alumni Associations gathered insights about the events that take place.

The initial step in the process involved interacting with the marketing team and sales team based in the India office, these conversations helped and provided insights into the current marketing strategies, the target customers, and the sales technique that has been employed by the company. These discussions gave a deeper understanding of the company's work and insights into its approach to reach targeted audiences.

To get a better viewpoint of the problem statement, external discussions also took place. Detailed conversations were done with representatives from database and telemarketing firms such as Dun & Bradstreet and Demandify. The aim behind these discussions was to gather information about the latest industry trends, the availability of databases that can be relevant to the software company, and whether this data is GDPR compliant.

To further enhance the research, 10 employees of the company who were also a part of Alumni Associations were interviewed. The company has a long-standing relationship with the colleges that the employees were a part of. This was to understand what activities the Alumni Association of these colleges has been doing to stay in touch with the alumni, and if the company can organize events in collaboration with these associations.

Overall, the initial research involved detailed discussion with the marketing and sales team, engaging with database companies, and interviewing the employees. This approach ensured a comprehensive look at the subject matter and provided valuable insights to understand the problem statement from different perspectives.

Secondary Research

In addition to the primary research conducted through discussions and interviews, secondary research was carried out by researching through existing sources to gather information on the similar area. The major sources of secondary research were on online resources such as google, research paper; including the company's website and Highspot page. These platforms were used to gather information on the research topic.

Online research using google and other platforms played a significant role in gathering information on a global level as well as data to support it. The company' s website was scrutinized to get a better understanding of their target audiences and content of the website, how it has been presented, is it easy for a person to navigate through and reach the relevant information. This also helped in understanding the company's product and services provided.

The Highspot page, is an online platform that provides sales enablement and content management solutions as one of the other sources of secondary research. This helped in gaining insights of the industry trends, the sales technique which the company has employed, and how the technique can be enhanced.

Through a deep dive in these online resources, the secondary research contributed to the overall understanding of the problem statement, and gained more perspective and ideas to cater the solutions.

FINDINGS

When the company organizes an event, or participates in an event, for example putting a booth at a third party event, if a person visits the booth he is required to fill out a contact form wherein there is a column that if the person would like to be contacted with the sale's team of the company. Subsequently, a modification was made to this particular section, wherein the query regarding potential engagement with the sales team was replaced with an inquiry about the individual's interest in subscribing to the company's official newsletter.

This alteration, while seemingly cosmetic, holds significant implications in terms of regulatory compliance, particularly concerning the General Data Protection Regulation (GDPR). By selecting the option to subscribe to the company's newsletter, the potential customer inherently grants their consent for the company's employees to initiate contact with them. This exchange of information and the subsequent outreach by company personnel align with the stipulations set forth by GDPR, which mandates that any contact and data processing activities must be executed in alignment with the explicit consent of the data subject. This modification resulted in a 25% increase in the database received during the event.

The company has strong ties with engineering colleges, and its potential clients include their alumni. To tap into this opportunity, the company plans to engage regularly with these alumni. This collaboration will happen through partnerships with the alumni associations of these colleges.

The thought behind this strategy is to stay connected with the engineering college alumni as the company aims to expand its customer base in different industries. As having a long-standing relationship with these colleges, the goal is to make the most of the connections and knowledge these alumni have. This way the company can promote its product and at the same time expand its reach to various sectors. In a nutshell, teaming up with engineering college alumni and their associations is a smart move for the company. It will give the company an advantage to leverage existing connections and keep expanding its customer base in the market and different industries.

CONCLUSION

In conclusion, the study points out the need to expand the existing database with new contacts in a systematic and repeatable manner. The research methodology used for this study had both primary and secondary research allowing to have a comprehensive outlook in acquiring new contacts for the company.

The avenues/ channels proposed after extensive research and impact and effort matrix which would have high impact and have less effort would be industry associations, alumni associations, and database and telemarketing companies. Other avenues that can be explored by a B2B company can be corporate competitions, gated content, panel discussions, feedback forms, LinkedIn communities, leverage speaker connections, and more. Additionally, the study is still open to finding more avenues that will contribute to expanding the database.

To evaluate all the avenues, the impact/ effort of every avenue was put where the impact was considered to be the monetary investment required and time which needed to be invested; and for effort factors such as reach, and contacts generated were taken into account. This matrix helped in providing a structured approach to prioritizing the avenues that need to be focused first.

The impact effort matrix helped us prioritize 3 avenues namely, IIT Alumni Associations, Industry Associations, and specialized database and telemarketing firms as the key most efficient sources to obtain new contacts. These sources help us to reach different customer bases in different industries and also provide us with unique networking opportunities.

Overall, the study tries to present a defined process for acquiring new contacts and a few avenues that can be used while generating these contacts.

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Awareness and Usage of E-wallets Among People in Tiruvarur District

Dr. M.ILAMPIRAI*

ABSTRACT

E-Wallets or Electronic Wallets play a major role in cashless transactions among people in India. People make quick payments and also send money through these e-wallets. They can easily keep track of their transactions with the help of these e-wallets. These E-Wallets save a lot of time. Previously people had to stand in a queue at the Bank counters to transfer or send money to their friends or other institutions. Nowadays, people need not stand in queues and are using these e-wallets. They need not waste their precious time. The Government of India is encouraging the Digital Payment System and Demonetization has been done to block the transaction of black money among people in India. E-Wallets help in reducing these black money transactions. There are various studies about e-wallets. This study helps in finding out the awareness and usage of e-wallets among people in Tiruvarur District.

Keywords: *Awareness, Usage, E-Wallets, Cashless Transactions, Tiruvarur*

INTRODUCTION

Cashless transactions are being encouraged by the Government of India to reduce the circulation of black money among people in India. Therefore the Government of India has given importance to the Digital Payment System thus promoting cashless transactions.

One of the best methods of the Digital Payment System is the usage of E-Wallets. Transparency of monetary transactions increases by using these E-Wallets. We can transact money quickly and also keep track of our transaction details with the help of these e-wallets. Some of the e-wallets used by people in India are Pay TM, Google Pay, Phone Pe, SBI Yono, BHIM Axis Pay, ICICI pockets, etc. Awareness about e-wallets among people in Tiruvarur district was not studied by anyone. Therefore this study helps to find out the awareness and usage of e-wallets among people in Tiruvarur district.

OBJECTIVES

1. To find out whether people in Tiruvarur district are aware of e-wallets.

2. To study the influence of e-wallets among people in Tiruvarur district.

3. To find out from when e-wallets are used among the people in Tiruvarur district.

4. To find the purpose of usage of e-wallets among the people in Tiruvarur district.

REVIEW OF LITERATURE

According to a study conducted by M.Manikandan, and Dr.S.Chandra Mohan (2016) Lack of awareness of wallet services, poor advertisement, and unwillingness to adapt to new technology, were the reasons for the poor practice of mobile wallets among people.

Dr. M.ILAMPIRAI*, Assistant Professor of Management, Centre for Distance and Online *Education Bharathidasan University, Tiruchirappalli, Tamil Nadu,* elamvenkat81@gmail.com

From the study conducted by Bhagyashri R. Pachpande, and Aakash A. Kamble (2018) it was found that the majority of the users of E-Wallet were satisfied with the services provided to them. The majority of the users faced transaction failure and therefore the users were neutral about transaction safety.

Jumaila. K (2018), in her study "A Study on the Awareness of E-Wallet among Rural People," found that the majority of rural people do not always believe in the security of E-Wallet. They were dissatisfied with E-Wallet services. They sometimes trust e-wallet services. Therefore she suggested that safety measures can be provided by the bank.

The research study of Dr.M.Ilampirai (2023) on "A study on perception and preference towards e-wallets among College students in Thanjavur district (with special reference To GASC students, Orathanadu) inferred that the students of GASC, Orathanadu felt that security threat was the major obstacle in using e-wallets. Therefore it was suggested that severe security measures must be followed by the companies providing e-wallets to the consumers.

RESEARCH GAP

Various studies on E-Wallet usage among college students have been studied by various researchers. The awareness and usage of e-wallets by people in other districts of Tamil Nadu and other states have been found out by other researchers. Research about e-wallets among the people of Tiruvarur district was not studied anywhere. Therefore this research study about awareness and usage of e-wallets among people in Tiruvarur district has been conducted.

RESEARCH METHODOLOGY

This research study comprises both primary data and secondary data. Magazines and Journals have been used for collecting secondary. Questionnaire method has been used to collect Primary data. The sample size is 90 in numbers. Samples have been selected by the Convenient Sampling Method. This study uses simple percentage analysis.

TABLE:1 DEMOGRAPHIC VARIABLES OF THE RESPONDENTS

Variables	Classification	No. of Respondents	Percentage
Gender	Male	30	33
	Female	60	67
	Total	90	100
Age (In Years)	<18	09	10
	18-20	42	47
	21-30	30	33
	>30	09	10
	Total	90	100
Educational Qualification	Not Literate	03	03
	Diploma	09	10
	UG	51	57
	PG	18	20
	Professional	09	10
	Total	90	100
Monthly Income of the Family (In Rs.)	<10,000	48	53
	10,000-20,000	18	20
	21,000-30,000	15	17
	>30,000	09	10
	Total	90	100

The above table shows that the majority 67 per cent of the respondents are female. Majority 47 per cent of the respondents are in the age group between 18 and 20. Majority 57 percent of the respondents are having UG qualification. Majority 53 per cent of the respondents are having monthly family income less than Rs. 10,000.

TABLE 2: AWARENESS OF E-WALLETS

Awareness of E-Wallets	Total No. of Respondents	Percentage
Yes	57	63
No	33	37
Total	90	100

From table 2, it is found that the majority 63 per cent of the respondents are aware of e-wallets.

TABLE 3: INFLUENCER OF E-WALLETS

Influencers	Total No. of Respondents	Percentage
Friends	27	30
Relatives	03	03
Family Members	33	37
Colleagues	03	03
On Own	24	27
Total	90	100

The above table shows that the majority 37 per cent of the respondents are influenced by their family members to use e-wallets.

TABLE 4:   PREFERENCE OF E-WALLETS BY THE RESPONDENTS

E-Wallet Preferred	Total No. of Respondents	Percentage
Google Pay	57	64
Pay TM	09	10
Phone Pay	03	03
SBI Yono	03	03
Others	18	20
Total	90	100

From the above table it can be found that Google pay is preferred by 64 per cent of the respondents.

TABLE 5: DEVICE ON WHICH E-WALLET IS USED

Device on which E-Wallet is Used	Total No. of Respondents	Percentage
Personal Computers	06	07
Tablet	03	03
Mobile	66	73
Others	15	17
Total	90	100

The table 5 states that the majority 73 per cent of the respondents prefer mobile phones for using e-wallets.

TABLE 6: SINCE WHEN E-WALLET IS USED BY THE RESPONDENTS

Usage of E-Wallets	Total No. of Respondents	Percentage
Since Last One Month	30	33
Since Last Six Months	24	27
Since Last One Year	15	17
For Last 2 to 3 Years	03	03
For More than 3 Years	18	20
Total	90	100

From table 6, it is found that the majority 33 percent of the respondents have been using e-wallets since last one month.

TABLE 7: PURPOSE OF USING E-WALLETS

Purpose of Using E-Wallets	Total No. of Respondents	Percentage
Recharge	21	23
Fund Transfer	12	13
Bill Payment	15	17
Some of the above	03	03
All of the above	39	44
Total	90	100

The above table states that the majority 44 per cent of the respondents use e-wallets for all purposes like recharge, fund transfer and bill payments.

TABLE 8: AVERAGE AMOUNT SPENT THROUGH E-WALLETS

Average amount spent through E-Wallets (per Month)(In Rs.)	Total No. of Respondents	Percentage
<1,000	51	57
1,000-5,000	21	23
5,001-10,000	12	13
>10,000	06	07
Total	90	100

The table 8 states that 57 per cent of the respondents spend an average amount of less than Rs. 1,000 through the e-wallets.

TABLE 9: REASONS FOR PREFERENCE OF E-WALLETS

Reason for preference of e-wallets	Total No. of Respondents	Percentage
Availing Discounts	0	0
Cash Back	36	40
Easy to transact	27	30
No Risk of carrying Physical	0	0
Premium Offers	03	03
Security	24	27
Total	90	100

From table 9, it is found that the majority 40 percent of the respondents are preferring e-wallets for cash back offers.

TABLE 10 : RECOMMEND OTHERS TO USE E-WALLETS

Recommend others to use e-wallets	Total No. of Respondents	Percentage
Yes	72	80
No	18	20
Total	90	100

From the above table, it is found that the majority 80 percent of the respondents will recommend people to use e-wallets.

SUGGESTIONS

1. The majority of the respondents are influenced by their family members to use e-wallets. Therefore the companies providing e-wallets can concentrate on attracting and influencing these family members who in turn influence the usage of e-wallets among them.

2. The majority of the respondents are using e-wallets with the help of their mobile phones. Therefore e-wallet companies can tie up with mobile phone sellers to install their apps and make their apps available in the new mobile phones. The customer need not search for an app and download it. This may increase the usage of the e-wallets among the people in Tiruvarur district.

3. The people in Tiruvarur district are using e-wallets for all purposes. From the study, we can find out that they are not very interested in transferring their funds through their e-wallets. The majority of them use e-wallets to recharge their phones and top-ups for Television channels and prefer e-wallets for cash-back offers. Therefore the Government can provide attractive cash-back offers to these people for transferring their funds.

4. The majority of the people of Tiruvarur district are aware of e-wallets and use e-wallets. The average amount spent by them is less than Rs. 1,000 per month. To increase their usage amount, attractive cash-back offers can be provided to them.

5. The majority of the respondents have stated that they will recommend others to use e-wallets. Therefore cash offers can be provided to those who recommend others to use e-wallets. The new users can be asked about the person who recommended the e-wallet to them and offer a cash prize to the recommended person. This in turn may increase the usage of e-wallets.

LIMITATIONS OF THE STUDY

1. Only four months have been utilised for this research study.

2. The sample size is only 90 in numbers.

3. In this research convenient sampling has been used.

4. Bias in understanding the questions by the respondents may be one of the limitations of this study.

SCOPE FOR FUTURE STUDY

1. Other districts of Tamil Nadu can be selected for this research study.

2. The satisfactory level of using these e-wallets can be found out.

3. This study may help to increase the usage of e-wallets among people in Tiruvarur district.

4. The Government can try to implement cashless transactions among people of Tiruvarur district with the help of this study.

CONCLUSION

The people of Tiruvarur district are aware of the e-wallets. They are influenced by their family members to use e-wallets and are attracted by cash-back offers provided by these e-wallets. Despite their awareness of e-wallets, they are spending a minimum amount of less than Rs. 1,000 per month through these e-wallets and the majority of them have been using e-wallets for the last six months only. They also feel that e-wallets are easy to transact. As they are influenced by cash-back offers they can be provided attractive cashback offers for recommending e-wallets to others and also for doing transactions of more than Rs.1,000 per month. People in Tiruvarur district will recommend e-wallets to other people if they are given attractive cash offers.

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Harmony at Work: Nurturing Employee Wellbeing Through Mindfulness Practices:
A Literature Review

*Ms. Saniya Ulhas Shiurkar**

ABSTRACT

In the paper, the significant influence of mindfulness on building a resilient and well-rounded workforce in the modern workplace is examined. The introduction establishes the scene by emphasizing the growing significance of worker well-being and presenting mindfulness as a transforming tool in the face of the demanding and fast-paced nature of contemporary workplaces. The paper explains the fundamentals of mindfulness, including its history, tenets, and practice of being in the now. The tone for further talks about the useful applications of mindfulness in the workplace is established by this fundamental knowledge. By integrating the mind and body, mindfulness is explored in a way that goes beyond mental exercises to show its comprehensive character. The report highlights the complex relationship between physiological wellness and mindfulness, highlighting its ability to lower stress hormones and improve immune system performance. It does this by drawing on neuroscientific research as well as psychophysiological investigations. These useful tools enable staff members to adopt mindfulness as a technique for managing the demands of their work lives, from regular routines to special meditation areas. The fourth portion looks at mindfulness to boost emotional intelligence, develop empathy and self-awareness, and establish a collaborative and understanding work environment.

The study also emphasizes mindfulness as an effective tactic for lowering stress and fostering resilience. It illustrates how mindfulness practices give workers the skills they need to handle stress, overcome setbacks, and face problems head-on with poise using case studies and real-world situations.

Keywords: *Mindfulness practices, Employee wellbeing, Workplace culture, Stress reduction, Resilience building.*

INTRODUCTION

"Mindfulness is the key to unlocking the full potential of individuals in the workplace. By fostering a culture of presence and awareness, organizations can nurture employee wellbeing and pave the way for sustained success."

- Jon Kabat-Zinn

As we are discussing the mindfulness of employees in an organization, it is crucial to find out if staff members are truly satisfied with their work and the results they receive there. Mindfulness is a mental state in which individuals find satisfaction in what they are doing and the results they receive. The practice of mindfulness, which has its roots in contemplative traditions, has drawn attention from a variety of areas, leading to a range of definitions. In the end, mindfulness will provide dividends in terms of employee engagement and welfare. Here are some viewpoints on mindfulness from which we might get various definitions. The following perspectives are particularly significant when considering the well-being of our employees.

Ms. Saniya Ulhas Shiurkar*, B.Pharmacy, MBA (HRM), Ph.D Research Scholar, *MGM University, Aurangabad*, shiurkarsaniya@gmail.com

Conventional Reflective Viewpoint:

The term "mindfulness," which comes from Buddhist traditions, describes developing a concentrated, non-judgmental awareness of the current moment. It entails viewing emotions and ideas devoid of bias or attachment.

From a psychological standpoint:

The consciousness that occurs from paying attention intentionally, in the present moment, and without passing judgment is commonly referred to as mindfulness in psychology. This definition of mindfulness, made popular by Jon Kabat-Zinn, emphasizes how deliberate and non-reactive it is.

From a cognitive standpoint:

Redirecting attention to the present experience, including sensations, thoughts, and emotions, while emphasizing acceptance and avoiding being mired in judgments, is mindfulness from a cognitive perspective.

From a corporate and workplace standpoint:

Mindfulness is becoming more widely acknowledged in the business sector as a technique for improving worker welfare and productivity. It entails developing a concentrated, distraction-free presence during work-related activities, which enhances decision-making and helps manage stress.

(American Psychological Association. (2019, October 30). Mindfulness meditation: A research-proven way to reduce stress. Retrieved September 29, 2022, from https://www.apa.org/topics/mindfulness/mediation.)

The goal of employee well-being has surpassed traditional methods in the fast-paced and demanding environment of today's workplace. With its origins in antiquated contemplative practices, mindfulness has become a ray of calm amid the tumult. This study examines the significant influence of mindfulness on worker well-being, illuminating its transformative potential and useful applications in promoting a peaceful workplace.

In the fast-paced modern workplace, where tasks and obligations seem to pile up on top of one another, the pursuit of employee well-being has progressed beyond conventional approaches. Drawing from ancient contemplative traditions, mindfulness has evolved as a guiding beacon in this dynamic terrain, providing a peaceful refuge amidst the tumult. This essay delves into the tremendous impact that mindfulness has on workers' well-being, revealing the various facets of its transformational power and the useful applications that support the development of a peaceful and productive workplace. The clamor of deadlines, conflicting demands, and the constant buzz of technology in today's workplace has highlighted the necessity of an all-encompassing strategy for worker well-being. With its foundations firmly rooted in time-tested practices, mindfulness offers not just a haven but also a significant paradigm change. It is critical to comprehend the subtle effects of mindfulness as businesses struggle with the changing nature of work.

This paper acts as a compass, guiding readers through the complexity of the contemporary workplace and highlighting the many advantages of mindfulness for workers. It explores the origins, tenets, and methods of incorporating mindfulness into everyday work life, going beyond trendy terms and superficial aspects to uncover the substance of the practice. The transforming power of mindfulness can rethink the very essence of

how we approach well-being in the professional realm, as well as lessen the pressures of modern work, from the boardroom to the breakroom.

As we set out on this journey, we will examine the many facets of mindfulness, delving into its historical context and investigating the neuroscientific foundations that support its effectiveness. We will unravel how mindfulness may transcend rhetoric and become a lived experience that enables people and organizations to face the difficulties of the modern workplace with resilience, focus, and a deep sense of inner calm through concrete examples and useful ideas. Permit us to investigate mindfulness and how it affects worker wellbeing.

REVIEW OF LITERATURE

Organizational mindfulness can be defined as the practice of cultivating awareness and attention within an organizational setting, which involves the collective ability of individuals within an organization to be fully present, attentive, and conscious of thoughts, feelings, and actions in the work environment (Weick & Sutcliffe, 2001). The goal of mindfulness interventions is to promote increased attention and awareness of the experiences that are occurring in the present moment. As more businesses seek to promote employee performance, well-being, and health, the use of mindfulness programs in the workplace has increased (Lara G. Hilton, Nell J. Marshall, Aneesa Motala, Stephanie L. Taylor, 2019). Performance meditation is one of the numerous practices that have been recommended for gaining mindfulness about employee welfare. This practice will assist the employees in achieving mindfulness from a cognitive standpoint. Studies have demonstrated the beneficial effects of mindfulness meditation on worker well-being. This is because the practice helps to produce and circulate feel-good hormones that in turn give people a sense of mindfulness and belonging. Employees' well-being increased, burnout decreased, and their levels of anxiety and sadness decreased (Hyacinth Franca, 2023).

From being a taboo issue to being wildly popular, mindfulness has many positive effects on performance, health, and well-being within the company (Ellen Choi, Jamie A. Gruman, Craig M. Leonard, 2021). According to Kabat and Zinn (1994), mindfulness is the awareness that results from intentionally focusing on something in the present moment while maintaining a non-judgmental attitude. Organizational mindfulness equips leaders and employees with a profound comprehension of the prevailing environment enabling them to anticipate emerging trends and respond to new opportunities and threats (Malinowski & Lim, 2015).

The concept of mindfulness is centuries old, but organizational mindfulness has only recently garnered academic interest due to research done so long on the concept of mindfulness. Using a robust hybrid methodology that combines bibliometric analysis with a framework-based review this study provides an in-depth review of academic literature on organizational mindfulness. Organizational mindfulness emerges as a dynamic capacity of individuals within an organization to maintain present-moment awareness, attention, and a non-judgemental attitude toward internal and external experiences (Zheng et.al. 2022., Jang et al.2020).

The increasing acceptance of mindfulness's advantages has resulted in an exponential rise in the use of mindfulness techniques in a variety of contexts, including workplaces (Sutcliffe, 2016).

Organizational mindfulness provides a framework for employees to navigate the intricacies of their work with lucidity, concentration, and resilience thereby alleviating the detrimental impact of stress on their wellbeing (Walsh & Arnold,2020). Organizational mindfulness has focused on major four aspects first, conceptualization and comprehension of organizational mindfulness, mindfulness training and interventions for organizational change management, outcomes of organizational mindfulness in different business domains (Organizational

level and individual level), and last assessment of organizational mindfulness in different organizational settings. The increasing popularity of mindfulness among scholars and practitioners has drawn critical analysis from journalists and scholars (Ehrenreich, 2009) moreover despite the growth of scholarly research on organizational mindfulness, limited attention has been devoted to quantifying and advancing study. (Glomb T.M, 2011) contend that because mindfulness has a favourable impact on the self-regulation of emotional, cognitive, behavioural, and physiological phenomena, it fosters improved employee relationships, resilience, and task performance.

According to (Britton, 2019), there may be too many positive aspects of mindfulness that contribute to a productive workplace. According to (Good et al., 2016), context in mindfulness research in organizations needs to be given more consideration. The term "mindfulness" also encompasses a range of characteristics, behaviors, and approaches that are united by the emphasis on being in the present moment by means of non-judgmental awareness and attention.

The ability to pay attention to both internal and external factors, such as thoughts, body sensations, etc., is the fundamental component of mindfulness.

Although mindfulness is a state of consciousness, it also varies from person to person, indicating the presence of trait-like tendencies (Brown & Rayan, 2003).

The use of mindfulness-based HR practices to enhance employee wellness and other outcomes that are pertinent to organizations has gained popularity in recent years (Burton et al., 2016, Hyland et al., 2015).Employee engagement and creative work practices will result from mindfulness (Abhilasha Dixit, Yogesh Upadhyay, 2019).

The significance of Mindfulness's essence:

This section explores the essence of mindfulness to understand its significance in relation to employee health. By examining its history, fundamental ideas, and the practice of being present, we provide the framework for comprehending how mindfulness may serve as a pillar in the development of a resilient and well-rounded workforce.

The practice of mindfulness has its roots in ancient contemplative traditions, where it was a highly effective way to achieve emotional balance, mental clarity, and spiritual insight. Mindfulness, which has its roots in techniques like mindful breathing and meditation, is the deliberate engagement with the present moment without attachment to the burden of past worries or the uncertainties of the future. This conscious attention to the "now" is an active engagement with one's own experiences rather than just a passive observation. The fundamental ideas of mindfulness place a strong emphasis on acceptance, nonjudgmental awareness, and developing an inquisitive and receptive mindset toward how each moment unfolds. Through practicing the art of being present, we learn that mindfulness is a talent that can be learned and developed. Like any other mental muscle, it can be used to change the way people see and react to the various stimuli they encounter in their work life. Employees can develop a strong bond with their work, coworkers, and self by grasping and putting into practice the core principles of mindfulness. This will improve their welfare and resilience in the face of the constantly changing demands of the modern workplace.

Revealing the Mind-Body Relationship:

Being mindful is a complete activity that integrates the mind and body, not just a cerebral game. This section explains how mindfulness and employees' physiological well-being are intricately related, using research from both neuroscientific and psychophysiological fields. Mindfulness serves as a catalyst for a better, more balanced existence, resulting in lower levels of stress hormones and improved immune system performance.

Beyond stress reduction and immune function enhancement, mindfulness sheds light on the mind-body link that goes deeper into the foundation of holistic wellbeing. According to neuroscientific research, mindfulness exercises can alter the structure of the brain, especially in areas linked to self-awareness, attention, and emotional regulation. These changes in the brain provide the basis for improved emotional resilience as well as enhanced cognitive functioning. Psychophysiological studies also highlight the effects of mindfulness on autonomic nervous system performance, demonstrating how it can regulate blood pressure, heart rate, and even the expression of genes linked to inflammation. Understanding the complex relationship that exists between mindfulness and the body shows that this comprehensive approach is more than just a tool for psychology; rather, it is a transformative force that affects people's physiology and promotes a deep sense of balance and vitality both at work and in other contexts.

Incorporating mindfulness into the workplace:

This section delves into strategies to incorporate mindfulness into the workplace, moving from theory to practice. Organizations can support staff in embracing mindfulness as a strategy for overcoming work-related issues by establishing routines for everyday mindfulness and designating specific areas for meditation.

Furthermore, organizational policies and leadership techniques are included in the integration of mindfulness in the workplace, which goes beyond physical settings and everyday routines. Astute businesses are incorporating mindfulness into their operations by providing workshops, training courses, and other materials that meet the various needs of their workforce. These programs not only offer useful tools for stress reduction and concentration, but they also promote an environment of Candor and encouragement. By integrating mindfulness principles into their communication and decision-making processes, leaders establish the standard for a mindful workplace. The importance of mindfulness as more than just a personal practice is reinforced when it's incorporated into meetings, decision-making procedures, and company culture overall. It becomes a shared experience that unites coworkers in a shared commitment to sustained high performance and holistic wellbeing. Organizations find that mindfulness is not just a personal endeavour but a transforming force that may change the fundamental structure of the workplace as they move from theory to practical implementation.

Increasing Emotional Capacity:

Being mindful can lead to increased emotional intelligence, which is a valuable ability for negotiating the complexities of working relationships. Mindfulness acts as a catalyst to create a work environment that values mutual respect, understanding, and teamwork by encouraging self-awareness and empathy.

By practicing mindfulness, workers set the groundwork for increased emotional intelligence by going on a self-discovery journey. The development of self-awareness enables people to identify and comprehend their feelings, which empowers them to react to circumstances with more poise and clarity. At the same time, mindfulness' empathetic component goes beyond introspection and includes a keen understanding of other

people's feelings. This increased empathy becomes essential for collaboration, successful interpersonal communication, and dispute resolution in the workplace. By practicing mindfulness, staff members not only improve their emotional intelligence but also work together to create a culture at work characterized by mutual understanding, teamwork, and a deep respect for the range of emotional landscapes that make up the dynamic fabric of the work environment. Mindfulness serves as the spark that develops each person's emotional intelligence as well as the emotional intelligence of the entire corporate ecosystem.

Reducing Stress and Developing Resilience:

Reducing stress and fostering resilience are two of mindfulness's most important advantages. We examine how mindfulness techniques give workers the ability to control stress, recover from setbacks, and tackle problems with composure through case studies and real-world situations.

Beyond reducing stress, mindfulness's capacity to transform and build resilience is evidence of its long-lasting effects on worker welfare. People who practice mindfulness regularly become better at handling obstacles with grace and flexibility when faced with hardship and failure. Employees who practice developing a nonjudgmental awareness of their thoughts and feelings are better able to handle stress without acting on impulse. Case studies and real-world examples demonstrate how mindfulness prevents burnout, gives people the ability to stay focused in the face of uncertainty, and helps them come out of difficult circumstances with newfound energy. Mindfulness becomes a pillar for developing a workforce that not only successfully handles stress but also flourishes in the face of hardship, representing a resilient spirit that is essential for long-term success in the fast-paced and demanding workplace of today.

OBJECTIVES

1. To study the concept of Mindfulness.

2. To study the role and importance of mindfulness in employee wellbeing

3. To know about prospects of mindfulness in various HRM Practices.

CONCLUSION

When businesses start putting employee well-being first, incorporating mindfulness techniques into the workplace becomes a comprehensive and successful approach. "Harmony at Work" encapsulates this game-changing strategy by showing how mindfulness can foster a sense of resilience, balance, and general wellness in workers, creating the groundwork for a flourishing and peaceful workplace.

To sum up, "Harmony at Work" not only emphasizes how important it is for employers to put their employees' well-being first, but it also offers guidance on how to do it. Employees who adopt mindfulness practices gain the ability to handle difficult situations with more poise and clarity, which eventually boosts output and job satisfaction. The comprehensive incorporation of mindfulness benefits staff members on an individual basis as well as having a positive impact on the culture of the entire business by promoting closer bonds, better communication, and a common dedication to group achievement. "Harmony at Work" is a testament to the transformative power of mindfulness in creating a workplace where individuals thrive and contribute their best selves to the overall success of the organization, as businesses continue to recognize the indisputable link between employee wellbeing and overall performance

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Marketing 5.0: Technology for Humanity

Dr. Pallavi*

Author(s): Hermawan Kartajaya, Iwan Setiawan, and Philip Kotler

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Genre: Business Non-fiction

Publisher: Wiley

"Marketing 5.0: Technology for Humanity" by Philip Kotler is a must-read for any business or marketing professional looking to stay ahead of the curve. As the world continues to evolve rapidly with advancements in technology, Kotler provides a comprehensive guide on how organizations can leverage the latest tools and strategies to connect with customers in meaningful ways.

Kotler, a renowned expert in the field of marketing, takes readers on a journey through the progression of marketing, from the traditional 1.0 approach to the current 5.0 paradigm. He delves deep into the impact of digital transformation, artificial intelligence, and other emerging technologies, and how they are reshaping the way companies engage with their target audiences.

One of the book's standout features is Kotler's emphasis on the importance of "humanizing" marketing efforts. He argues that as technology viz., Artificial intelligence; Natural-language processing; Augmented reality & Virtual reality. These technologies have become more pervasive, it is crucial for businesses to maintain a personal touch and foster genuine connections with their customers. The author provides practical strategies and case studies to demonstrate how organizations can balance technological innovation with a human-centric approach.

Throughout the book, authors also explore the evolving role of the marketing professional, highlighting the skills and mindset required to thrive in the rapidly changing landscape. They encourage readers to embrace a growth mindset, continuously adapt to new trends, and leverage data-driven insights to make informed decisions.

Overall, "Marketing 5.0" is a comprehensive and insightful read that offers a compelling vision for the future of marketing. Kotler's deep understanding of the industry, combined with his ability to synthesize complex concepts into actionable advice, make this book an invaluable resource for any business seeking to stay ahead of the competition and connect with their customers in a more meaningful way.

Dr. Pallavi*, Associate Professor, *Army Institute of Management & Technology, Greater Noida*

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ABOUT AIMT

Army Institute of Management & Technology (AIMT), Greater Noida was established by the Army Welfare Education Society (AWES) in Aug 2004 to cater to the increasing need for professional education for the wards and widows of Army personnel. Army Institute of Management & Technology has been ranked 54th position in the IIRF ranking by Maction Consulting under the Federation for World Academics (FWA) for 2024. A NAAC Accredited; ISO 9001: 2015 Certified Institute, AIMT is affiliated to Guru Gobind Singh Indraprastha University, Delhi, and has been graded 'A'. Equipped with all modern teaching & learning tools/facilities, the Institute aims to provide top-class management education to the students.

AIMT conducts a two-year full-time residential MBA, MBA in Analytics, and three-year full-time residential BBA courses for the wards of army personnel only in areas of Marketing, Finance, Human Resources, Information Technology, International Business, and Operation Analytics. The Institute strives to impart value-based and character-centric management education to foster and refine perseverance, leadership, integrity, positive attitude, and skills that students imbibe right through their formative time spent in the Army Environment. The teaching pedagogy involves the ingenious amalgamation of faculty-supervised case studies, simulations, role plays, management games, etc. Students-driven activities include participation in forums like Marketing Club, Finance Club, HR Club, IT Club, Uddyami Club, etc. to provide a non-formal forum for the growth of dormant talents under the benign guidance of faculty members.

Within a short span of its existence, the institute has developed a strong and vibrant Institute-Industry interface with more than 1000 corporate linkages. Students have landed placements in leading Indian and MNCs like HUL, ITC Ltd., MMT, Puma, Decathlon, American Express, Oppo, HDFC Bank, IndusInd Bank, Mindswork, Prism, Ashiyana Housing Lt., Radisson Hotels, Jaro Education, etc. Taking into account the growing needs of the industry, many capsule courses like ERP, Business Intelligence, Investment, Security Analysis, etc. are being conducted to enhance the employability of students. The Institute has enlarged the scope of Management training by conducting Management Development Programmes for 1000 Judicial Officers, workshops for corporate executives, ex-servicemen, etc.