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Articles

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EVALUATION OF NEW PRODUCT DEVELOPMENT (NPD) MODELS OF THE INDIAN JEWELLERY INDUSTRY

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Abstract

This paper aims to study the Next Gen Stage-Gate New Product Development (NPD) model, and further evaluates the current New Product Development (NPD) Model of Jewellery Manufacturers of the Indian Fine Jewellery Industry.

The intention of this study is to assess the current capability of new product development of the jewellery industry. The study data is derived from 70 samples collected through a questionnaire survey from key members of the Indian Fine jewellery industry who are involved in the New Product Development (NPD) for their organization.

The outcome of the study highlights the concerns in the existing NPD model of the Indian jewellery industry, and suggests the direction based on the Next Gen Stage-Gate NPD model.

Keywords: *New Product Development (NPD), Next-Gen Stage-Gate Model, Technological Product Development, Product Innovation*

Introduction

The gems and jewellery sector is among the important sectors of the Indian economy; it largely depends on jewellery and stone exports. In India, it is one of the focus areas for export and investment. This industry among the rapidly growing Industrial sectors of India that provide income as well the employment. However, the previous year's data on Indian jewellery exports shows that the industry's growth is sluggish and hardly making an impact on overall export performance since the last slow down. As per the chairman of the Gem and Jewellery Council (GJC), Mr. Ananth Padmanabhan, the jewellery industry is not growing, and has remained stagnant after the 2009 slow down, and after the 2016 demonetization (Press Trust of India, 2019). There is no clear record of significant changes in jewellery design and development, and as per our observation, no drastic change has been happening in other areas in the jewellery industry which can be cited as major breakthroughs for the sector.

The Indian jewellery industry is considered to be one of the largest consumers of jewellery; it contributes 29 percent to the global jewellery consumption. The industry has more than 3,00,000 players spread across various organized and unorganized segments; it contributes to 7 percent to India's GDP (India Brand Equity Foundation, 2020). As far as exports are concerned, the Indian jewellery industry is distributed in three major segments. Among these, the polished and cut diamond fine jewellery segment dominates with 56 percent. Figure -1 demonstrates the 2019 export data.

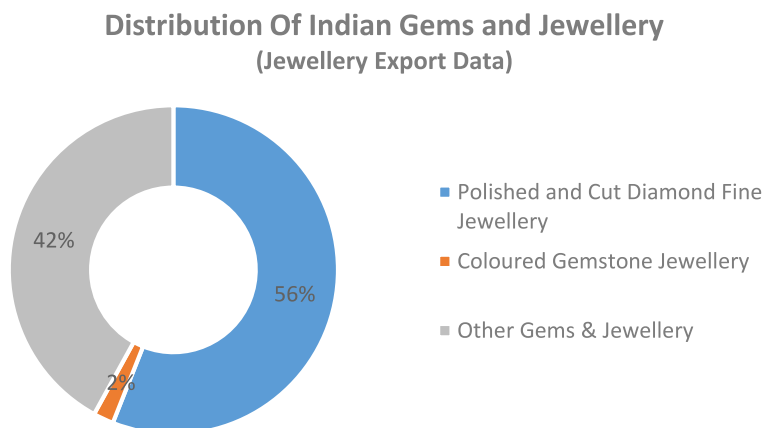


Figure 1: Distribution of the Indian jewellery segment based on export
(Source: Aranka Research)

The Indian jewellery industry is a big industry that satisfies the existing domestic and international need for gems and jewellery. Data from FICCI indicates that the industry is generating 56% revenue from exports and 44% from domestic demand.

Export vs. Domestic Revenue

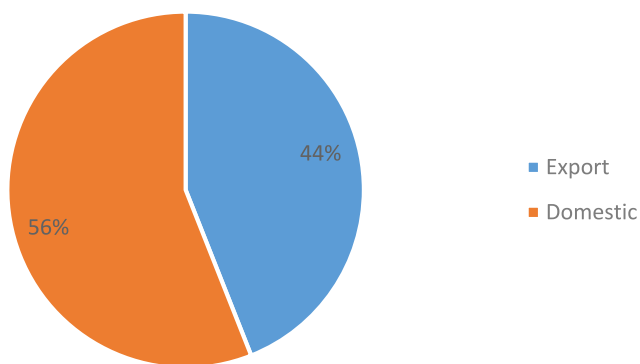


Figure 2- Indian jewellery industry revenue - export vs domestic (Source: - FICCI)

The fine jewellery industry is scattered across various segments; cut polished diamonds and jewellery made from them have a major market share.

Fine Jewellery Industry Segment

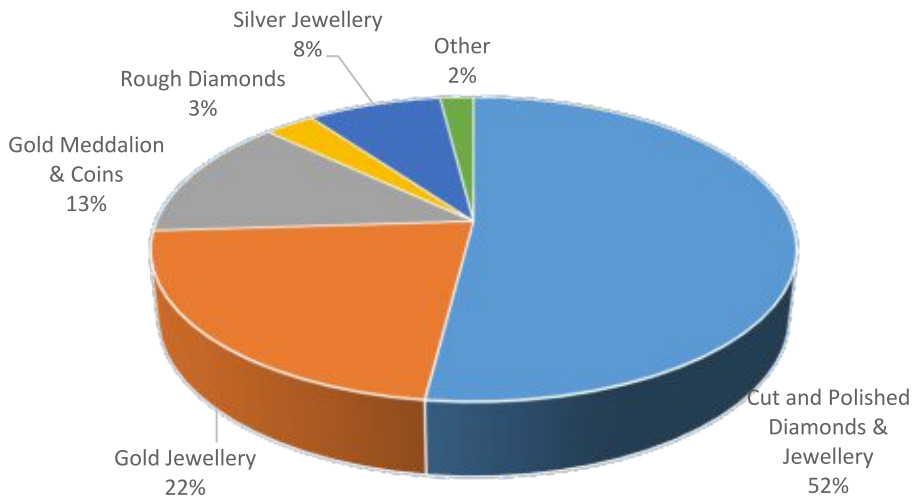


Figure 3: Indian fine jewellery segments and their share

The Indian jewellery industry is skill centric and dominated by unorganized retailers. At the same time, organized retail has stepped up from 10% in 2000, to 30% in 2016. However, the unorganized segment continues to enjoy a larger share of the pie. The possession of gold and fine jewellery is considered one of the most adopted mode of accumulating illegitimate wealth. The government restriction policy related to gold, huge differences in making charges compare to organized retail, the trust factor associated with local jewellers, and the availability of traditional craft style jewellery with unorganized retailers are some of the main reasons of why unorganized jewellery retail enjoys a large market share in the country (Sandeep Gupta & Somil Shah, 2017).

As per the GJEPC export data (Gems & Jewellery Export Promotion Council, 2019) of the last five years, we are lagging behind neighbouring country. These neighbour countries were once perceived as less competent and also assumed as that, they will never compete us because we have inherited unique skills and cheap labour. But the situation is evident now of those ignorance and overconfidence. Competitors have outdone us through innovative new product development models, fierce design management strategies, technology, hard work, and continuous efforts (Business Standard, 2016). The current situation of the Indian jewellery industry is alarming as the impending economic slowdown may hit just as hard as it did in 2009. In this situation, we need to correct ourselves by changing our mindset, and by changing approaches and policies that are not favourable. We need to think of a suitable environment for innovation and competitiveness, for the market to remain at the top spot in the world. For this, we need to respond quickly with a new framework for new product development; one that is favourable for innovation and unceasing growth.

In the current scenario of free trade and trade wars, we need to learn from the history of the United Kingdom's (UK) manufacturing industry, and the fall and rise of the Chinese manufacturing Industries. The study by M. A. William and A.K. Kochhar highlighted that weak new product introduction in the British manufacturing industry had great impact on new product development and innovation (Williams & Kochhar, 2000) in the UK manufacturing sector; this led to the decline of the entire industry. Gaulier G., Lemoine F., and Ünal-Kesenci D. have discussed how China's exceptional export performance due to the inclusion of technology in their local manufacturing industry gave them dominance in manufacturing around the globe (Gaulier et al., 2007).

This can be a good reference point for the Indian jewellery industry. We can take inspiration from the Chinese manufacturing strategy and derive an indigenous model, which can combine technology with our unique craftsmanship, and start focusing on building a

technology-driven new product development (NPD) model. This could play an important role in re-shaping the Indian jewellery manufacturing sector. Constant, innovative new product development will provide sustainable growth and pave the way for the Indian jewellery industry to soar to new heights.

NPD is a back and forth fusion process of combining design, engineering, manufacturing, distribution, sales, and marketing knowledge to meet precise targets. NPD is a vital process in any industry to survive in their business in the competitive business environment. NPD is a set of endeavours to realize the market scope, culminating in production, sales, and distribution (Ulrich, 1995). The product may be tangible or intangible in nature. The NPD is an act of innovation where a completely fresh product or an improved version of an existing product is brought to the market for satisfying the needs of customers effectively (Kumar & Gopalan, 2020).

The product development (PD) process is a series of systematic activities to develop products or services from ideas, or on the basis of market opportunities. Many scholars, writers, product developers, and designers have put forth their views concerning the NPD process. The NPD process normally coincides with the engineering design process where several steps are involved; a developer's guide is compiled, which envisions a real concrete product or an abstract concept. The NPD process has been articulated in various ways, many of which include identifying the opportunity, ideation, designing, testing, and commercialization.



Figure 4:- Generalized NPD Process

The initiation of NPD can be rooted back to 1960 when there was a shift from the grand approach to the focus approach, and later, to the process approach. These approaches continue to be effective in the 21st century particularly the process approach. In the stage-gate NPD process, the movement from one stage to another is carried out by the concerned person from the management, or by the decision making committee, keeping in mind the business, risk, and other production factors. Such a movement also includes consideration regarding the budget, human resources, and marketability (Elmansey, 2017).

The Stage-Gate New Product Development Process

The Stage-Gate process developed by Robert G. Cooper is a model which guides product development through several stages from idea to launch. The standard process consists of five main stages (Stage-Gate Systems: A New Tool for Managing New Products , 1990). The suggested stages are as follows:-

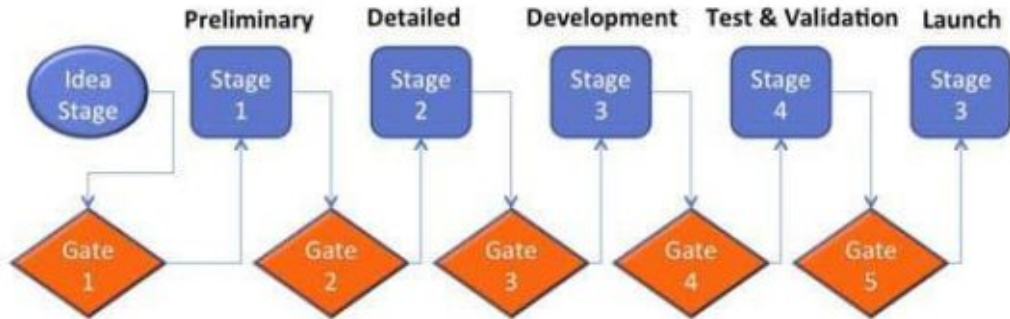


Figure 5: The Stage-Gate New Product Development (NPD) Process (source: - <https://www.designorate.com/stage-gate-new-product-development-process/>)

Stage 0: Discover

This is the first phase where an organization tries to discover or identify an idea which can address consumers' needs.

Stage 1: Scoping

At this stage, the PD team assesses the discovered idea based on current or upcoming market needs. Here, the PD team uses various tools of scoping such as SWOT analysis and Matrix analysis.

Stage 2: Build Business Case

When the idea for product becomes clear and decided, the PD team develops the product definition, conducts an analysis, creates a business case, makes a product plan, and compiles a product feasibility plan.

Stage 3: Development

At this stage, the PD team takes the developed idea and converts it into a working prototype.

Stage 4: Testing and Validation

At this stage, the PD team tests the prototype and collects feedback for product improvisation. Comprehensive testing identifies problems with the product and retests the product using real market tests to check for feasibility.

Stage 5: Launch

Testing and validation pave the way for the product launch. At this stage, the developed product gets rolled out to the real world, i.e. the market. The marketing division of the PD team plays an important role in developing market needs, determining the maximum market risk in launching the product, and collecting statistics for the development of yet another a new product at the level of product degradation.

The developed standard model is used in decision making, and that improvises the product to move forward. The Stage-Gate model was rationalized by Robert G. Cooper in the year 2006, and named 'Next Generation Stage-Gate Model', for an effective outcome with regard to new product development (COOPER, 2006) as is shown in Figure: 6.

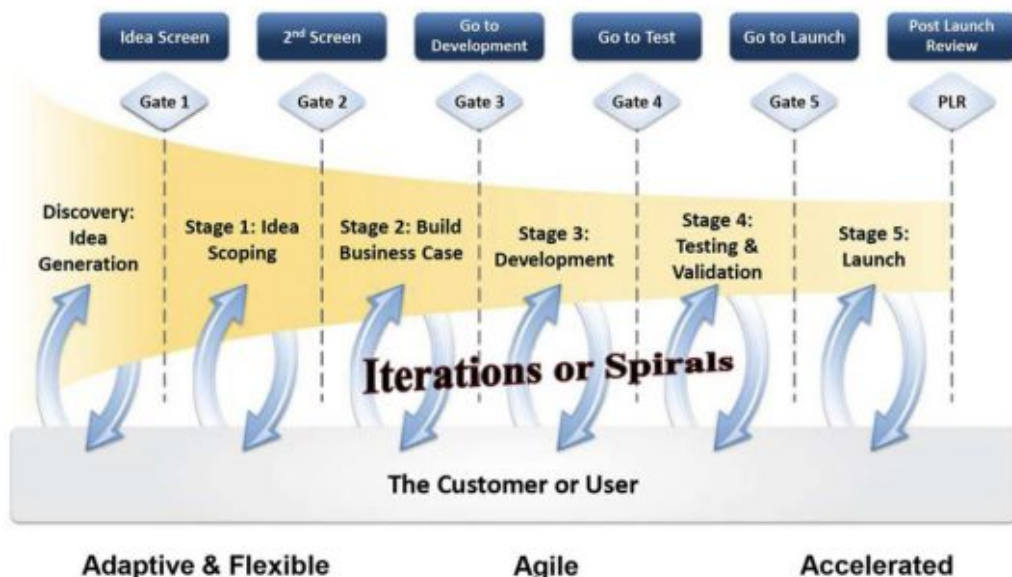


Figure 6: The next-generation idea-to-launch system
(Source: <http://www.stage-gate.com>)

Adaptive and Flexible:

The modernized model includes the consumer view at each stage and incorporates the iteration for the spiral process, which provides back to back customer feedback and gives the model an adaptability and flexibility, which make it possible to improvise at each stage.

Agile:

The updated State-Gate model is inspired by the agile development system of the software industry; this has helped to make the model more agile and reduce development time.

Accelerated:

The updated model allows processes to overlap with each other to accelerate development.

The below shown in figure: 7 illustrate how the Stage-Gate model process can merge and overlap with one another to reduce the development timeline.

The next generation Stage-Gate model allows the organization to reduce the risk when developing a new product. This ability increases the organization's competitiveness in the market and provides room for innovation. The model is also known for its iterative and spiral characteristics that allow the organization to develop the product through co-creation. The continuous views of the customer at each stage give confidence in the product. Iterative and spiral characteristics make it more scalable, which allows the developer to modify the process based on the timeline of PD.

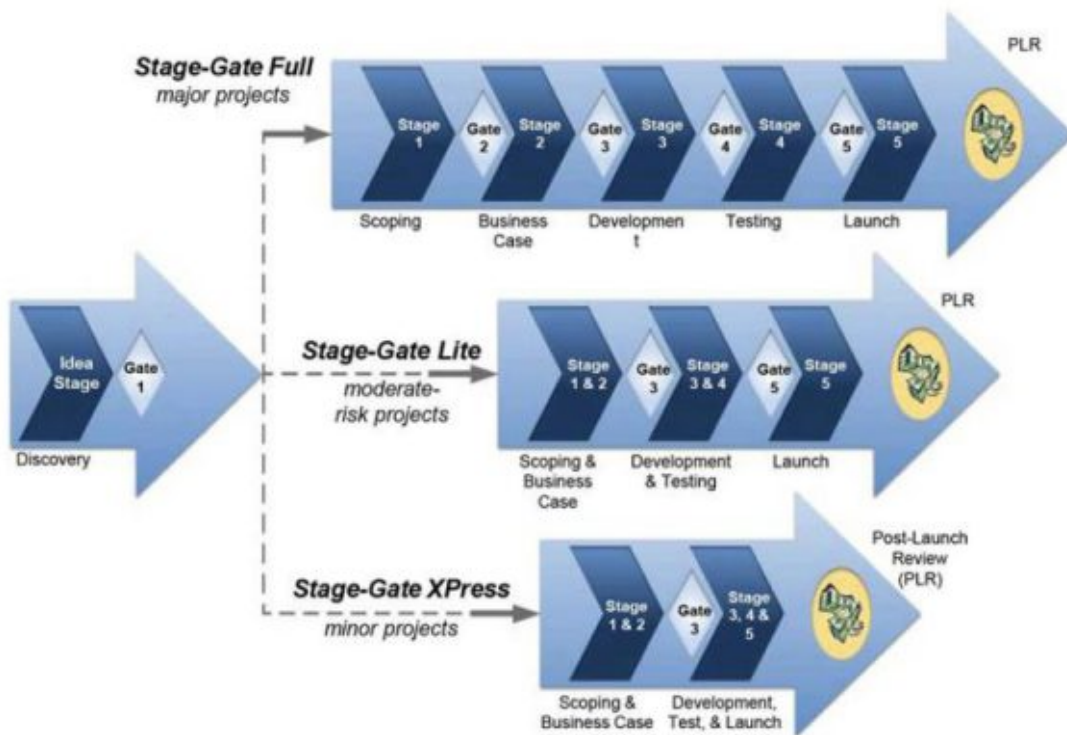


Figure 7: Scalability in the NexGen Stage-Gate process (Source: <http://www.stage-gate.com>)

Literature Review

The Indian gems and jewellery industry is a crucial industry in terms of revenue generation, GDP, and employment. This industry is the 4th largest revenue generator for the Indian economy. This industry contributes 7% of the country's GDP. It makes up 15.71% of India's total exports (IBEF, 2019). This industry heavily depends on exports and brings the huge foreign revenues for the country (Khanna, 2018). The Indian gems & jewellery industry employs more than 4.64 million people and is likely to provide employment to 8.23 million in 2022 (NSDC, 2017). In the last decade, India was the world leader in jewellery exports; however, it lost its place to its neighbouring country due to a deficiency of cheap labour and quality products (PTI, 2019) (Dr. Parul Agarwal, 2017).

The rise in jewellery exports from our neighbouring country is a result of its cheap labour, relaxed exports policy, and quality products. This also possible of because the uses of technology in the PD (PTI, 2019) (Dr. Agarwal. P. et.al.). In the same study, Dr. Agarwal. P.

et.al (2017) have identified the area where the Indian jewellery industry is facing problems; they have highlighted the issues of severe competition from China and other countries.

The technology sector is where the Indian jewellery industry is facing a problem since long. Also, technology plays an important role in the growth of the Chinese jewellery industry; this is proving to be a threat to the Indian jewellery industry. Modern, automatic factories provide better quality products and competitive prices. She also highlighted that, the Indian jewellery industry has a very low level of research and development for their PD. Suitable R&D resolutions will definitely support in refining the product quality, decreasing wastages, developing new designs and concepts, innovating new supply chain management techniques, and implementing an effective marketing strategy. The lack of high-end machines and unskilled labour can also be resolved with innovative R&D solutions; such capabilities can be attained by adopting new and emerging technologies.

The rapid changes in the global market have definitely put pressure on businesses across the globe. The manufacturing country have to overcome issues related to product prices, quality, labour cost, and regulations along with developing innovative products and services. Particularly, manufacturing companies must continue to provide innovative, high quality, new products in a very short span of time to remain competitive in the market. This is only possible by implementing a contemporary philosophy in their NPD processes (Y. Tina Leea, 2017). A new philosophy based on technologies must be incorporated in NPD and manufacturing for continuous growth. The past century was a benchmark century in the field of manufacturing; the industry has adopted various technologies in the process of enhancing their capabilities and lead innovation. From the Ford assembly line (1900s) to the Toyota six sigma production system (1960s), flexible manufacturing (1980s), reconfigurable manufacturing (1990s), agent-based manufacturing (2000s), and cloud manufacturing (2010s) have been implemented to improve performance and increase innovation (Jinjiang Wanga, 2018). These technologies have been used for effective performance and innovation when they were in vogue, or invented to tackle circumstances of those times. Now, the situation has changed, and a novel era of new-generation information technologies has arrived. Big data-driven technology is the need of the hour along with artificial intelligence; this will help to transform low level of efficiency to high and optimum levels of performance by using exact information (Fei Tao, 2017). Information plays a significant part in the creation of a new product; this will be vital in NPD.

The NPD model of the Indian jewellery industry is untouched by researchers. No research was found in this area during the study. There are few organizations in the industry that have

a NPD department and a research and development department. These organizations' NPD departments work around internal idea sourcing and upcoming trend directions. The R&D departments of only a few organizations work on developing new settings, multi-wearability, metal reduction, and developing new findings. These practices have already been done in the past and appear obsolete in the current competitive environment and business context. Further, in the process to know the current model, discussions were carried out with many product developers to learn about the existing model used in the Indian Jewellery industry. The model which emerged is an indigenous model developed by the industry. The current model is based on the British standard, "BS 7000, of the design management system-guide to managing innovation" (British Standard, 2008). This model was developed in 1979 to standardize product innovation. The model seems obsolete in the current era of advance internet and might not be effective enough with regard to NPD needs for the current era.

Based on the above review, we can conclude that there is a need to rework the NPD model for the Indian fine jewellery industry involved in export; the model should be based on contemporary concepts and philosophies. This novel model will help the industry to tackle challenges, especially those which have emerged from China.

The Research Objective

The objective of this study was to assess and evaluate the existing NPD model of the Indian jewellery industry. The new product development model is an area of concern for the Indian jewellery industry and has great emphasis on product development and innovation.

The research findings may help motivate the industry players to accept the effective next-generation Stage-Gate model process to develop their NPD strategy; this could help their organization to do effective NPD, making them more competitive and innovative.

Research Methods, Data Collection, and Sampling

This research was a descriptive research, and conceptual in nature; in order to carry out this research, we used a set of questionnaires which included the Next Generation Stage-Gate model (Cooper, www.stage-gate.com, 2012) process. Next Gen Stage-Gate's based questions were asked from industry stakeholders to assess the industry NPD process. The questionnaire-based survey was carried out with the stakeholders such as owners, managing directors, directors, presidents of marketing and operations, marketing manager, PD managers, production managers, design managers, and designer among others associated with the PD process in the Indian jewellery industry. These targeted samples are key

personnel of their respective organizations and associated with the PD process. They are from India's well-known jewellery industry, working at various design studios, domestic jewellery manufacturing units, export related jewellery manufacturing units, jewellery e-commerce store, specialty retailers, and other jewellery setups of India. In this study, the non-random quota sampling technique has been used. The significant views of all quotas have been taken into record for ensuring greater depth in the research. A total of 70 samples' data was collected in the research.

Data Analysis & Findings

This section covers the data gathered to evaluate the current model of NPD by comparing it with the Next Gen Stage-Gate model of the NPD process, which is shown in figure: -7. For the data analysis, eight criteria were considered: Idea Generation, Idea Screening, Concept Development & Testing, Marketing Strategy Development, Business Analysis, Product Development, Test Marketing, and Commercialization & Feedback.

The data collected is analysed to evaluate the flaws of the current NPD process that is followed by the Indian jewellery industry; it has also been compared with the Stage-Gate NPD model. Also, based on data analysis, a new direction has been suggested for NPD for the Indian jewellery industry. The analysed data has been represented using statistical tools, visual charts, and graphs.

Sample Distribution

The samples have been collected from across the industry to get generalized views of stakeholders related to the NPD process adopted by their organization.

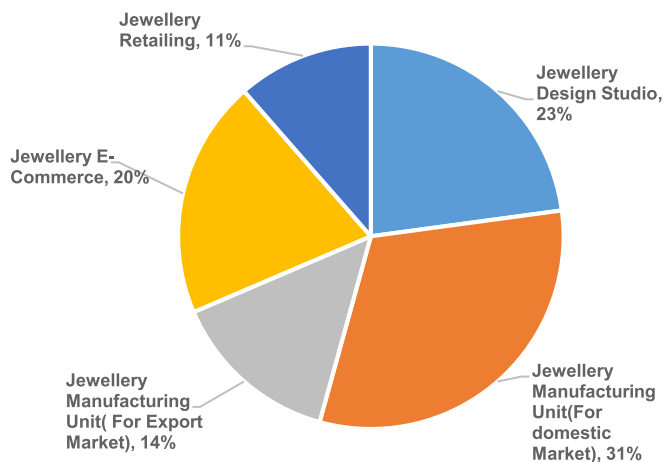


Figure 8: - Sample distribution

Methods of Idea Generation

The industry approach in idea generation is quite diverse and most businesses use methods and tools such as market research, self-initiated ideas, trend-based ideation, marketing team leads, and client suggestions to develop ideas (refer to Figure 9). The idea generation method adopted by the industry is quite traditional and based on internal idea sourcing; it does not include end customers' views.

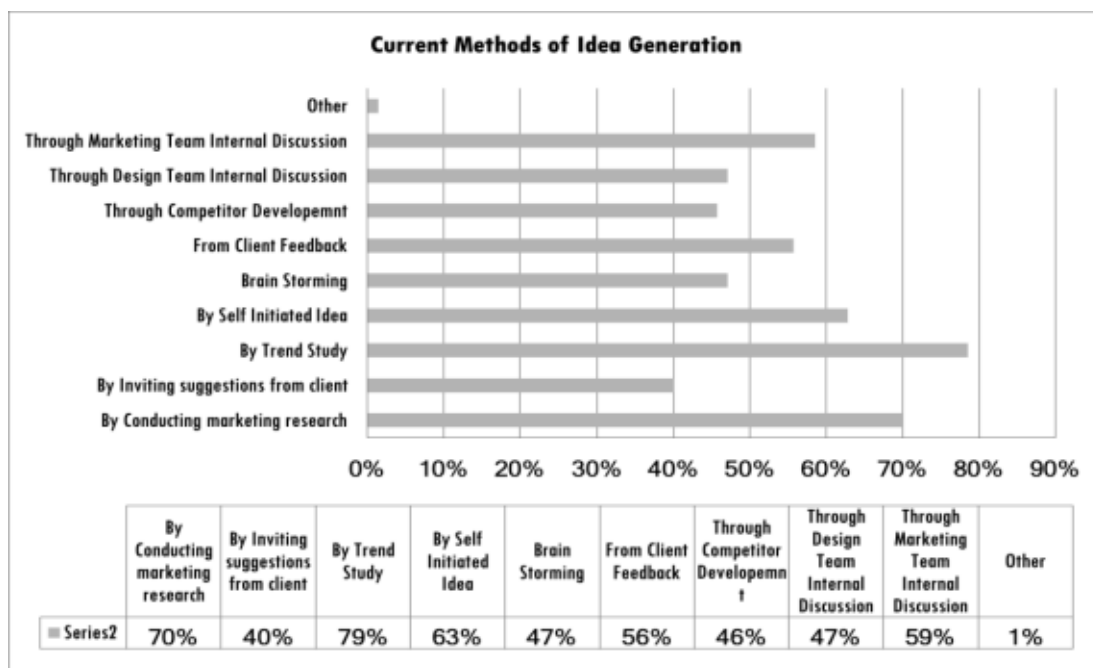


Figure 9: - Methods of idea generation adopted by the industry

Methods of Idea Screening

The collected data shows that idea screening (Figures-10 and 11) is quite person centric in the industry, thanks to availability of first-hand sales information. Also, the rationale of idea screening adopted by the industry is based on the assumed saleability and, marketing intelligence, shown in Figure-11, which differs from the Next Generation Stage-Gate Model, and focuses on co-creation.

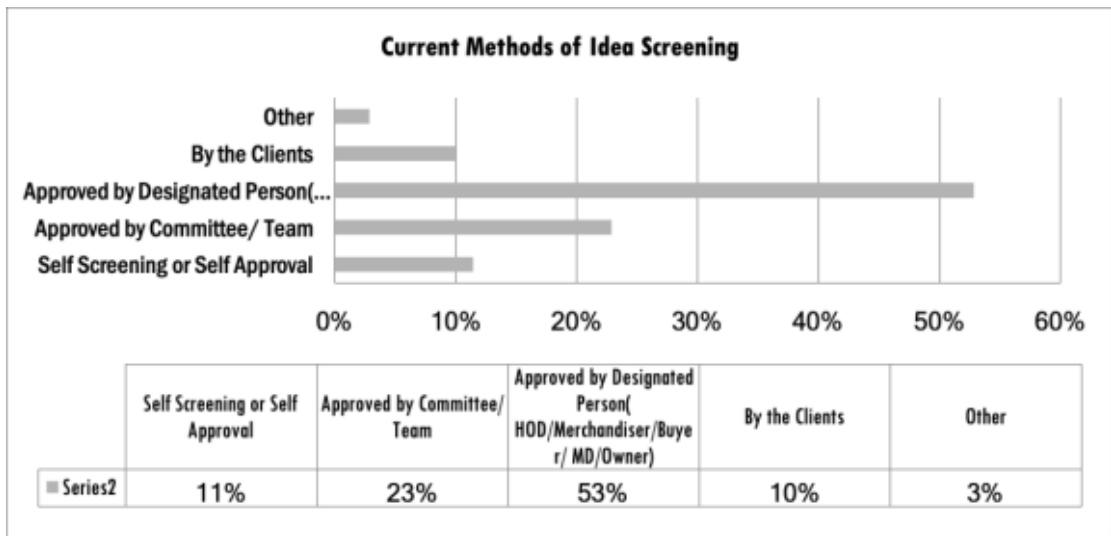


Figure 10: - Methods of idea screening followed by the industry

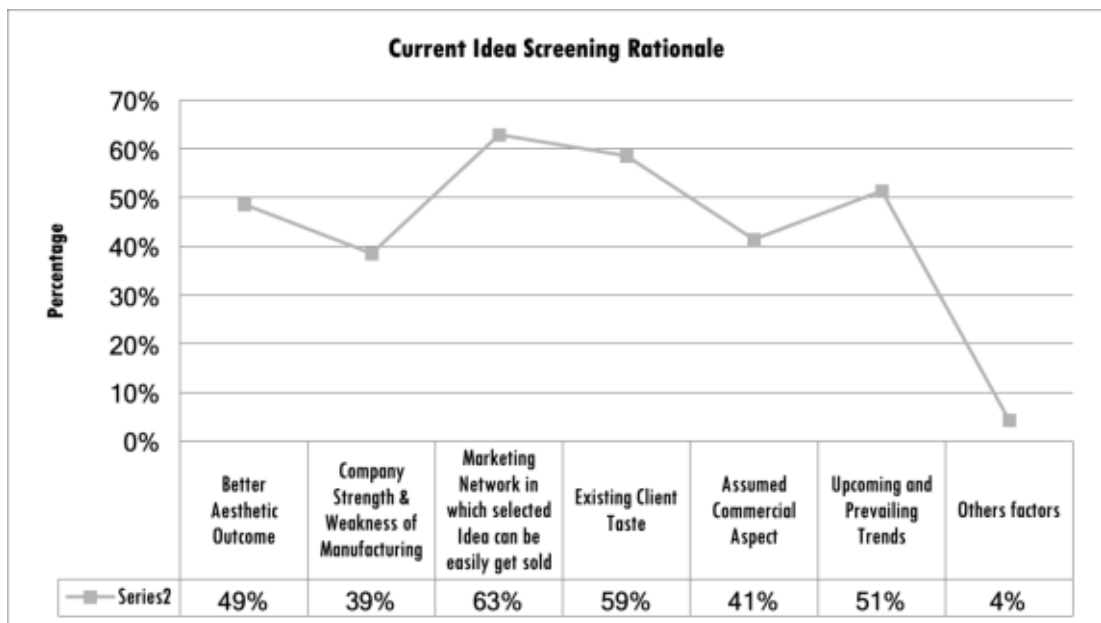


Figure 11: - Rationale of idea screening in industry

Rationale of Concept Development

The concept development approach in the industry is based on the buyers’ demand, assumption of customer understanding, and assumed needs of the customer, its purpose is to add on to the organization sample line. In the existing process, the end customer’s direct

views are not taken into account. The concept development approach is different from the Next Generation Stage-Gate model of NPD.

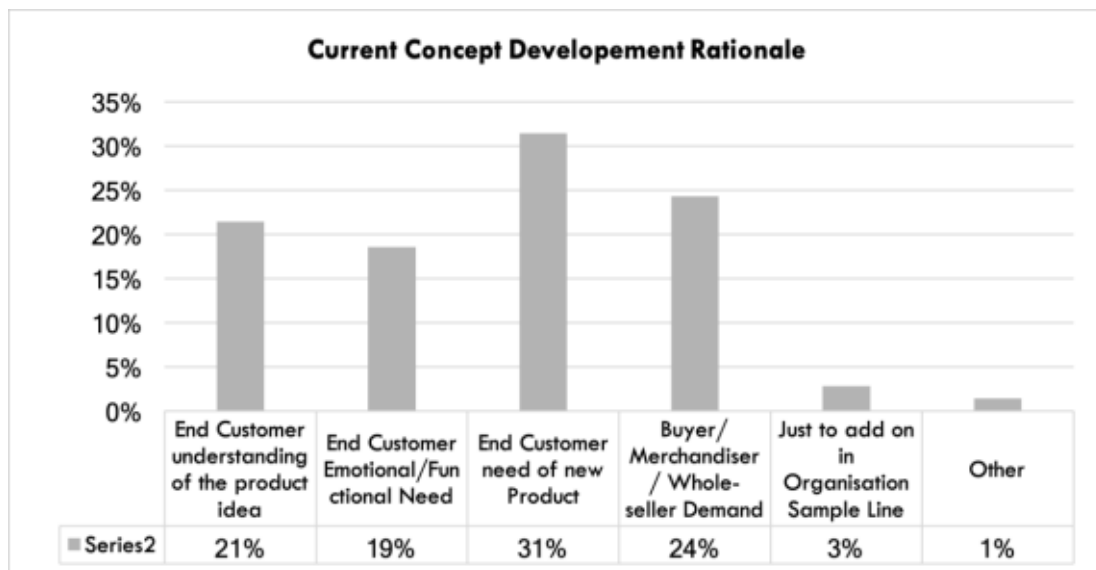


Figure 12: - Concept development rationale of the industry

Feedback of End Customer on Design

The data suggests that the feedback of the end customer gets considered in the current NPD process, but there is no direct interaction system with the end customer in the industry right now. The feedback of the Head of Department (Marketing/Design/PD/Production) involved in product development along with the buyer plays an important part in the NPD process.

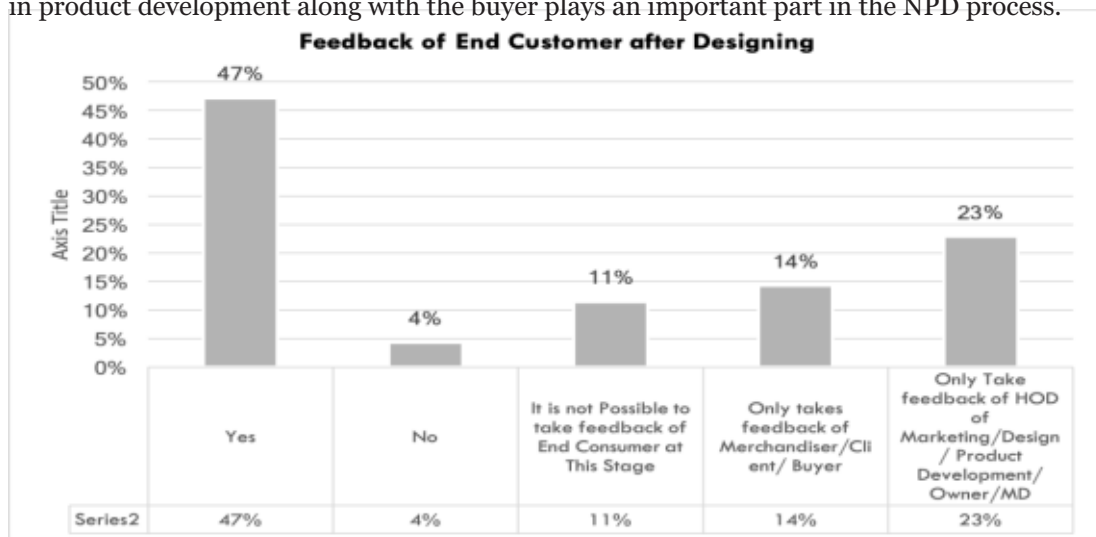


Figure 13: - Feedback from the client after designing

New Product Viability Analysis

The industry approach in analysing the manufacturing feasibility is acceptable and mostly believed in analysing the production feasibility by producing the sample first. This practice may be a time-consuming and costlier affair for the industry, but is in fact the best fit (Figure-14).

The commercial viability analysis is quite orthodox in the industry. Mostly, the commercial viability analysis is based on the cost and value proposition of the first sample, important management persons' views, and an assumption of various sales and profit indicators. These aspects are entirely based on assumptions and not on any primary data collected from the end customer. The views of respondents shown in Figure-14 clearly illustrate the basis of analysing the commercial viability, it is based on the assumption and ownership of important stakeholders of industry involved in the NPD process.

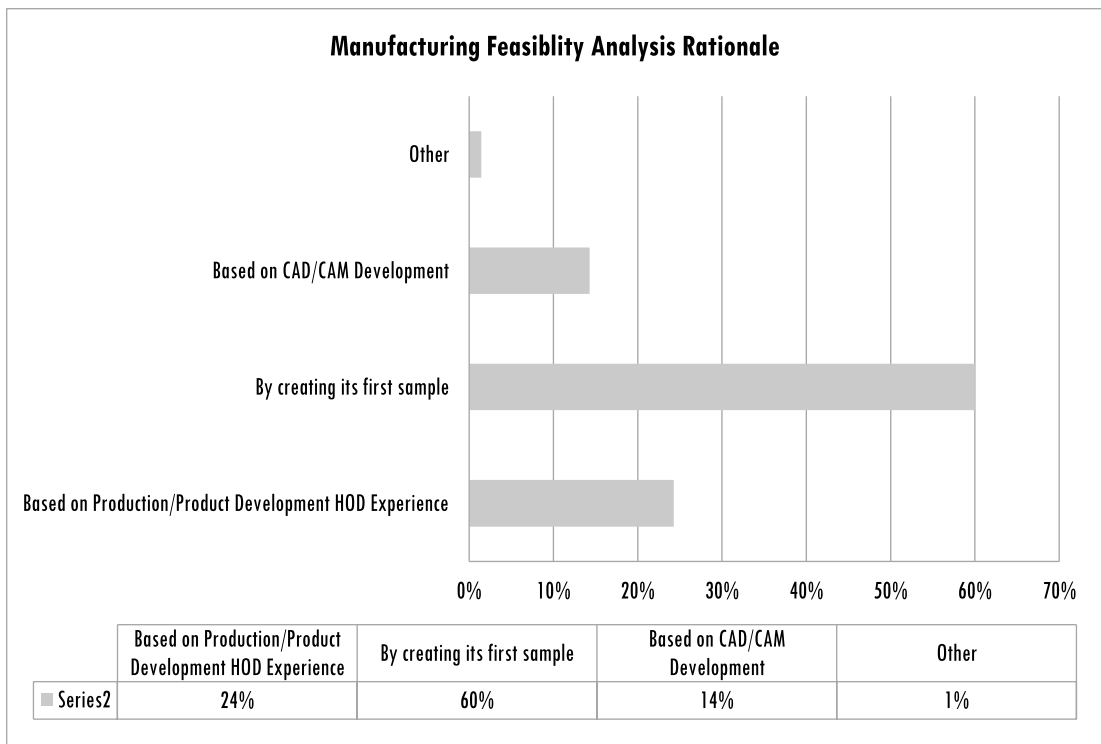


Figure 14: - Product feasibility analysis methods of the industry

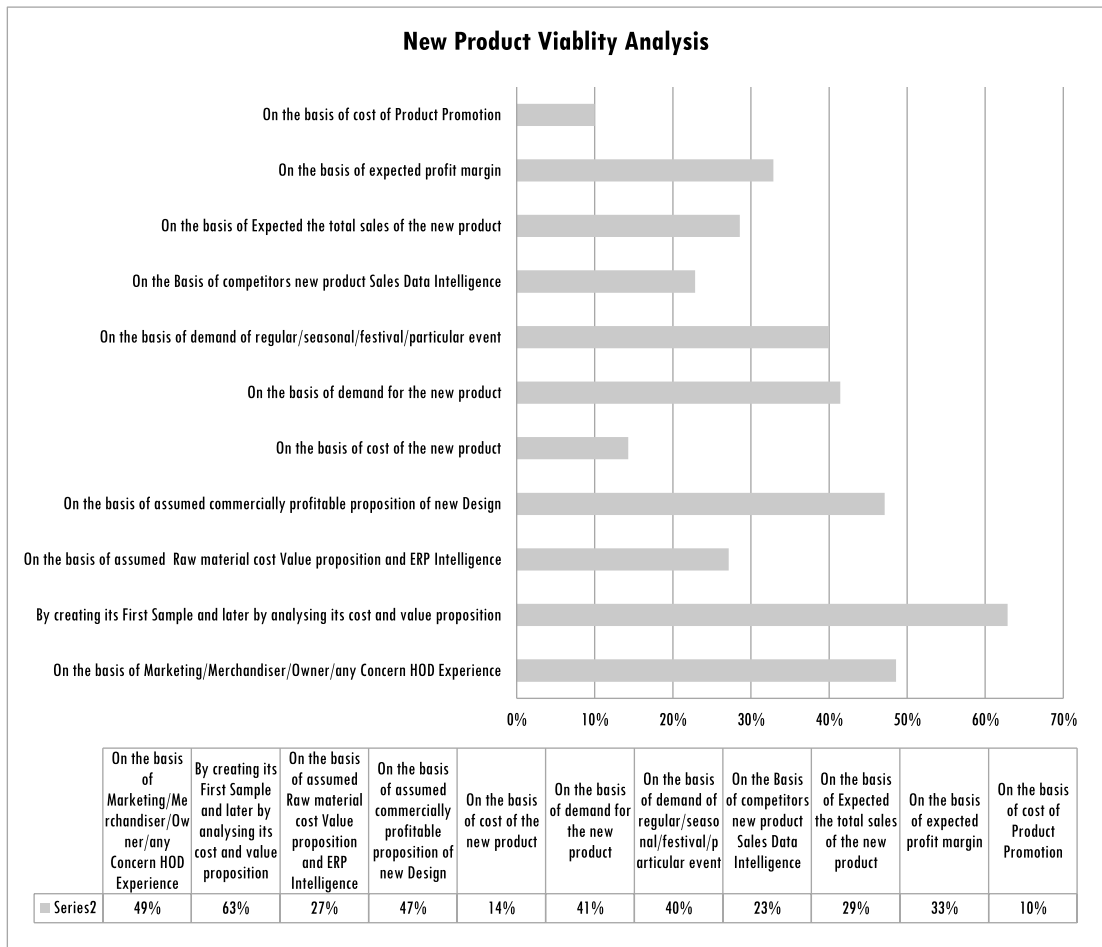


Figure 15: - Product viability analysis methods used by the industry

Approach for PD

The industry is still dependent on the contemporary and traditional method of PD where the use of the old CAD and CAM methods which had started a decade ago for producing the samples is still in use in the industry. The infusion of latest technology is the need of the hour for the industry to develop new products. The new technology may help in reducing the sample turnaround time and reducing the development cost. It may help the industry to experience the product virtually by implementing virtual realization technology.

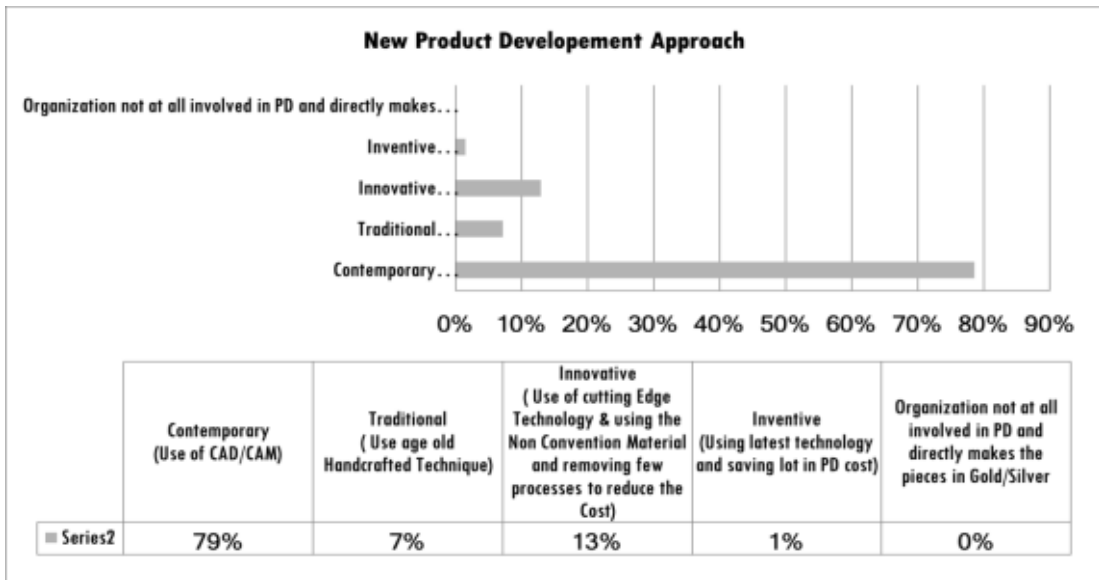


Figure 16: - NPD approach adopted by the industry

Approach to Production Management

The views on production management are scattered among industry stakeholders, but there are some acceptable standard procedures followed by the industry. A separate production planning and control (PPC) departments or other specific departments manage the production of newly developed products (Figure:-17).

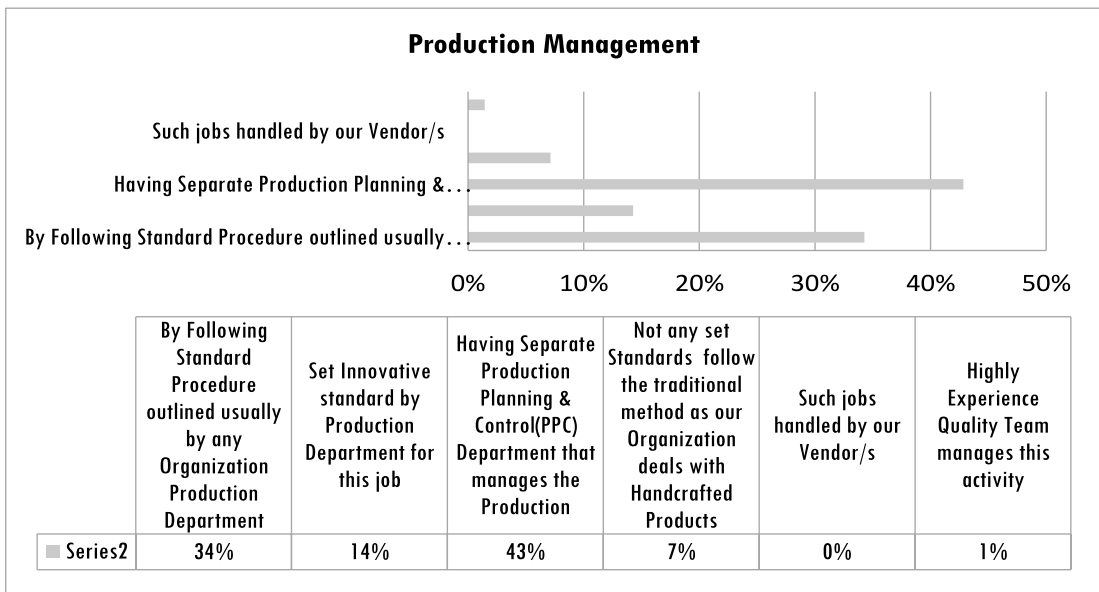


Figure 17: - Methods of production management adopted by the industry

Test Marketing

Test marketing is an important stage before commercialization and the industry currently performs quite well where in test marketing is concerned. At this stage of the NPD process, the product and its planned marketing agenda are tested in real market settings. The industry does well on this front, as is visible in their response (Figure-18).

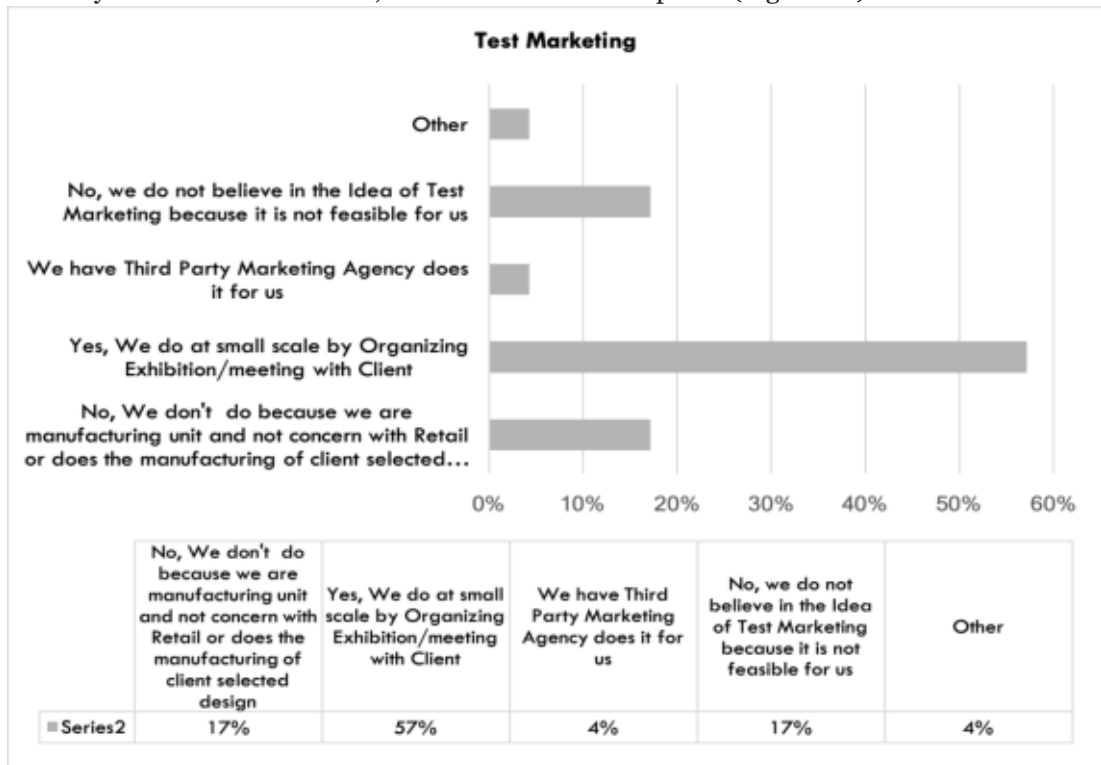


Figure 18: - Methods of test marketing

Assessment of New Product Development (NPD)

The assessment of NPD heavily depends on test marketing because a large investment is at stake; this is an investment organization make prior to product launch. There is a high level of risk involved in introducing a new product to the market. The test marketing result is an indicator of the new product development process. In the collected data, the Indian industry still believes in client selection and aesthetic value, rather than end customers' views, as is evident in the data shown in Figure-19.

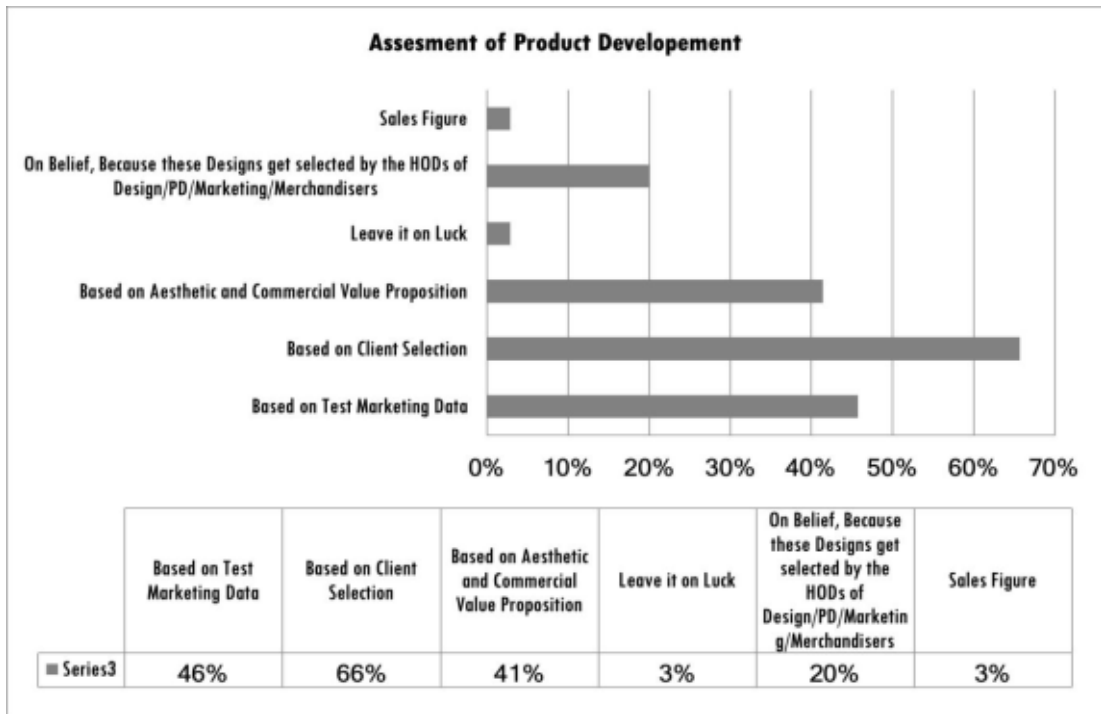


Figure 19: - Basis of assessment of PD by the industry

Commercialization

Commercialization is an important part of getting the desired results from the NPD process adopted by an organization. In the ongoing internet age, most organisations have moved from traditional mass media advertising to digital media advertising. Interaction with the end user has also become an important part of commercialization process.

In the post commercialization portion of NPD, the views of end users are key for further development and fine-tuning. These views enable organisations to remain competitive. However, in the existing model there is a dearth of steps that enable and encourage further development and fine-tuning.

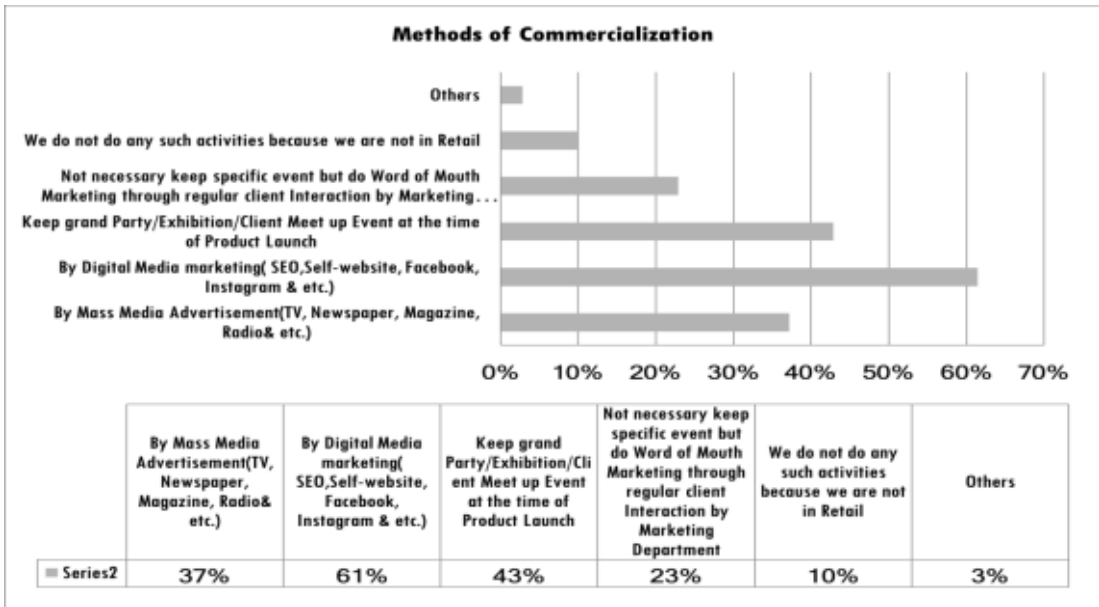


Figure 20: Methods of commercialization adopted by the industry after NPD

NPD Success Indicator

The significance of the NPD process is that it helps to create better value for customers; only then can the product become successful. Only a few products taste success in the market after commercialization. The gathered data shows that the industry gives consideration to the acceptance of products by consumers, better sales and profit and customer satisfaction after sales. These aspects are key deciding factors in the success of NPD process.



Figure 21:- NPD success benchmark of the Indian jewellery industry

Suggestion and Discussion

Products get mature every day and their demand reduces with times. In the current competitive environment, the jewellery industry must continuously lead where the development of new products is concerned, in order to remain relevant in the market. Effective implementation of successful NPD is the only way to maintain business success. To sustain the business, an organization must execute NPD successfully. The industry encounters problem in successfully executing new products because of various hurdles such as lack of primary information, lack of feedback, lack of test data, and a lengthy process. The launched product which may not have developed using the NPD process sees setbacks when launched to customers. Therefore, there is a necessity to understand the value of the consumer's view, the market requirement and competitors' strategies. This can give better results if the industry follows the systematic NPD process.

This research is intended to assess the processes adopted by the jewellery industry of India for NPD; further, it compares with the Next Generation Stage-Gate model of NPD. This study indicates that the industry does not follow the Stage Gate model. The industry still follows the two-decade-old British standard model of product development, and findings indicate that the views of end customers do not get recorded directly anywhere in the New Product Development process. The views of senior management personnel such as the owner, managing director, buyers, marketing and merchandising head, product development head, and design head play an important role in idea generation, concept development, product development and its finalization. There are no significant indicators that data and analysis play a role in the NPD process only the above- mentioned management personnel's views are taken into consideration in the industry's NPD journey. Also, the practiced model of the industry does not carry out marketing and business analysis after concept development. Findings also indicates that the industry has strengths in many processes or sub processes in the New Product development process; these includes the internal idea sourcing, concept-building, communication with immediate clients, product feasibility and viability analysis, production management, and advertisement strategy during commercialization, However the industry is lacking somewhere when it comes to idea screening, end customer inclusion in the process of co-creation, sample development and its review and, test marketing.

The jewellery industry is quite narrow in thought because of its family-owned traditional business mind-set, competition, issue with raw material and lack of attention to safety aspects. This may be the reason for not including end users at stage of the New Product Development (NPD) process. The derived conceptual model is suggestive model based on

Next Generation Stage-Gate model will build a bridge between the end customer and the organization. This will help the organization to make their decisions more customer-centric and help the product development team to innovate products with systematic processes. The Stage-Gate model will provide direction to the organization and make the New Product Development Process more innovative than earlier. It will also make the organization more competitive.

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ONLINE BUYING DECISIONS - AN EXPLORATORY FACTOR ANALYSIS WITH REGARD TO MUMBAI CONSUMERS

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Abstract :

E-commerce or electronic commerce has changed the shopping behaviour of Indian consumers. Indian consumers who were accustomed to offline shopping are slowly migrating to online shopping. The novelty of buying goods online once in a while has been replaced by habitual buying. A number of factors may contribute to this shift of consumers from offline to online shopping. Traditional offline shopping involves direct interaction between buyers and sellers. However, consumers are restricted to what is available in the physical shop. Geographical boundaries also prevent buyers from accessing products that may not be available in local stores. In addition, smaller offline retailers may not offer discounted prices; and consumers have to shop according to retailers' store timings. Consumers may find online shopping attractive due to the convenience, ease, product range, price offers and variety available at one place. However, they may also be sceptical regarding the safety of their purchase and the information that is being shared on online shopping sites. Consumers like to search for

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products, compare them, and then make their buying decision. Reviews by other customers on online shopping sites facilitates comparison between products offered by various sellers. Further, these retailers run several campaigns as part of their ongoing marketing strategy. These retailers offer daily and hourly discounts in order to motivate audiences to visit their websites. However, whether or not consumers really make purchases upon visiting these websites is something that needs to be understood. It is also unclear whether or not customers tend to indulge in impulsive buying online, like they do in offline brick and mortar retail stores. This study aims to explore the factors that influence consumer buying decisions during online shopping with regard to consumers living in Mumbai city. Researchers have used the survey method for data collection, and collected data has been analysed using statistical techniques. Factor analysis was undertaken in order to understand the factors that would affect consumer buying behaviour in online shopping. Three factors were identified through the analysis — namely buyer benefits, risk awareness, and price offers. The findings of this research can help marketers design specific strategies to stimulate buying behaviour. In addition, this research will help them to focus on specific aspects involved in influencing consumer decisions.

Keywords: Brick and mortar retailing, online buying, risk, price offers, payment options

Introduction

According to A.T. Kearney's global retail e-commerce index (2013), "Online retail is defined as the sale of consumer goods to the general public through websites operated by pure play online retailers or those owned by store-based retailers. This term also includes mobile commerce sales through smart phones or tablets."

The Indian consumer market is witnessing a major shift in attitude; consumers are moving from traditional stores to online stores. According to Alba et al. (1997), physical stores, such as departmental and specialty stores, give buyers the opportunity to touch and feel the merchandise, and to get information directly from sales persons. In contrast, the online shopping environment is highly intangible, wherein buyers do not get the opportunity to touch, feel, or smell products before buying them (Childers et al., 2001). Consumers make online purchases for both, convenience and enjoyment (Childers et al., 2001). The emergence of various online retail formats with attractive offers and availability of many products in one place is one of the factors contributing to the shift from offline to online. At the same time, the penetration of the internet into the Indian market is another factor that has contributed to this phenomenon. A majority of retailers have created user friendly mobile interfaces, so that users without computers can also indulge in mobile online shopping. Such mobile phone applications developed by sellers make one touch shopping easy for customers. According to studies, number of mobile phone per user in countries like Russia and UAE are much higher than developed countries (A.T.Kearney,2013). Consumers in these countries use their mobile phones to seek information about products, compare prices, and read reviews by other consumers. Similarly, in the US e-commerce growth in 2014 rose by 15 percent and has taken the top spot due to continued growth in the economy, coupled with higher levels of consumer confidence (A.T.Kearney, 2015). While we analyse the online consumption habits of different age groups, it has been identified that generation X consumers born between 1966–1981 made more online purchases (KPMG report, 2017). Online shopping is still in its nascent stages in India, and given the size of the market and the diversity of the population, it is also imperative that retailers understand how to retain customers once the novelty wears out (Booma & Deepika, 2020). According to internet stats (2018), the global internet reach is increasing steadily and is around 59.9%. This opens up opportunities for online retailers to capitalize on the trend. Aspects that we can look into as reasons for online shopping include the ease and convenience of purchasing desired products and services coupled with access to a large variety of products, discount offers, doorstep delivery, speed of purchasing, swift payment options, and no disturbance from salespersons (Zhou et al., 2007). Impulse buying is a significant phenomenon, which needs to be triggered in consumer buying behaviour; especially in India. Unintentional purchase of products carried out by consumers without

prior planning is referred to as impulse buying behaviour (G. Muruganatham & Ravi Shankar Bhakat, 2013). Impulse buying is widely studied across the world, but in India this has emerged as a recent trend, mainly in online shopping. Impulse buying in online shopping involves a person purchasing products unplanned without considering alternatives. This consumer behaviour of acting upon an unexpected urge to buy a product without prior planning is considered irrational. So, to retain the consumer after the initial novelty is gone is the greatest challenge and retailers have to design strategies for improving customer retention. So, it is very important to identify what triggers purchase and the reasons that motivate buyers to come back to a website for shopping again. In addition, understanding the role of demographics like age and gender can offer significant insights for a marketer.

The goal of this research is to analyse the impact of various factors in online buying.

Literature Review

Indian online retailing has gained many buyers in the recent past due to an increasing shift in the attitude of consumers towards online buying. Indian buyers are basically touch and feel consumers who have slowly migrated to online buying. A number of factors have contributed to this, namely, the penetration of smart phones, access to the internet, and an increase in awareness levels of users about products and digital payment facilities. Online buying has increased in countries where the growth and penetration of the internet have increased (Mehrad Salehi, 2012). In addition, it has been observed that demographics and risk perceptions have an impact on online shopping behaviour (Sandra M. Forsythe, Bo Shi, 2003). Consumer attitude towards online grocery shopping is a key indicator of purchase intentions. There is a strong correlation between attitude evaluation and behavioural intention. (Torben Hanson, 2000). According to Goodwin (1999) attitudes and motivations cannot be understood through online purchases but they are vital for online marketing strategies' outcomes. Online purchase intentions are developed through social influences and brand image (Tahir Ahmad Wani et al, 2016). Though online shopping boasts about convenience, 24*7 availability, variety, low prices, or price offers, convincing a customer to switch over to online buying completely is very difficult. Product price has a direct influence on overall customer satisfaction and influences the customer to make repeat purchases (Alhassan G Abdul Muhmin, 2001). While consumers shop, they look for value utility and acquisition utility. Value utility refers to the benefit perceived by consumers after the transaction, whereas acquisition utility is the psychological satisfaction a consumer gets from a transaction (Lichtenstein et.al , 1990). Online recommendations have an impact on the consumer buying decision process. (Senecal & Nantel, 2004) Similarly, consumers' preference towards buying from online stores is influenced by pricing. Different consumers respond to pricing differently. Online retailers assume that low prices can influence

consumers to shop online, but the findings of some studies reveal that it is not necessarily so, and consumers were in fact using the internet for browsing (Sapna Rakesh & Arpita Khare, 2012); many a times website visitors do not buy anything. On the other hand, according to Mehrdad Salehi (2012), devices are flooded with spam advertisements that do not entice internet users much, which makes it difficult to get the attention of customers in order to encourage them to use online platforms. One of the key concerns with online shopping is trust towards the seller, and the associated security risk. According to Cunningham (1967), a consumer perceives two types of risks – uncertainty, and consequences of purchase. According to Y.E Nayyi (2004) consumers experience some kind of uncertainty while buying from a brand, and as a result, are indecisive about their purchase. The role of an online retailer is to build trust and instil confidence in buyers. Online retailers have to invest heavily to build trust (Jorji Abraham, 2018). Different authors have recognized different types of risks associated with online purchase. According to Nena Lim (2003), consumers perceive three types of risks while making online purchase – technology, vendor, and product. Sandra M Forsythe and Bo Shi (2003) identified four types of risks associated with online purchase – risk related to financial loss, performance of the product, mental stress, and loss of time. According to the E-Commerce Foundation report (2018), about 49% of consumers never buy goods or services online due to trust issues. Consumers' perceptions about quality of product is also an important reason for consumer to buy the product through online (Aaker,1991). Experience and trust influence the online purchase process; when consumers have a positive online experience and trust the retailer, they are more likely to shop online again (Weng Marc Lim, 2008) .Therefore, the retailer must strive to influence the perception of consumers by creating positive experiences that would build trust; this in turn, can motivate consumers to shop again online. Consumers' online buying status can be identified through their education, perceived accessibility and utility of distribution, and experience (Hairong et al, 1999).

The increasing number of online retailers increases the perception of risk among buyers (Mohammed et. Al., 2018). This perception can become an important decisive factor affecting the buying process (Y.E.Nayyi, 2004). Individuals perceive risk because of the online shopping and they fear that sharing information over the internet can bring harm to them, because online businesses collect and use information without paying attention to data safety norms (E.A. Nyshadham, 2000). Consumers associate a high level of risk with online purchase via credit card. So, they prefer to purchase products that have a low risk (E.H.Fram & D.B. Grady,1997). In order to reduce the perceived risk, retailers can share the names, addresses, and contact details of website owners along with other website details. Similarly, to reduce the product risk they need to display a privacy policy, refund policy, and warranties on the website. (Nena Lim, 2003). Among women shoppers, security risk is a bigger concern

compared to other risks (Arora & Rahul, 2018). Another aspect that may affect the online buying decision could be that an individual with high hedonic value does not prefer to buy from online stores as they prefer to interact with sales persons. So, retailers have to create hedonic value in the online outlet, and also reduce the perceived risk for the customer (Abhigyan Sarkar, 2011). E-retailers have to reduce risk perception by understanding the risk dimensions that affect the consumers' purchase decisions (Emad Masoud, 2013). Another focus area for an e-retailer is the need for differentiation from other retailers. With mushrooming numbers of retailers online, it is important for retailers to differentiate themselves from others in order to make customers understand the difference between their offerings, service, and quality; this in turn, can reduce the risk perception. In order to attract buyers to their website, retailers are designing competitive offers. However, in spite of several efforts made by retailers, the emerging competition results in consumers getting drawn from all sides. This study tries to identify the factors that affect consumer buying decisions in online shopping, so that retailers can design better strategies to attract buyers.

Objectives of the study:

To identify the various factors that influence the consumer decision process in online shopping

Research Methodology:

Type of Research:

A quantitative research methodology has been adopted for this research. An exploratory factor analysis technique has been used to explore the factors that affect consumer buying decisions while shopping online.

Sources of Data:

An extensive literature review was carried out to understand the relevance of the topic and the various studies done in the past, on online buying behaviour. Survey data was collected through a structured questionnaire administered through Google Forms. To minimize sampling bias, the questionnaire was administered to different age groups.

Sampling Plan:

A total of 180 respondents were surveyed and a convenience sampling method was used to collect data from the sample. The sampling unit for the study was the city of Mumbai, and its suburbs.

Scale:

The questionnaire comprised of two sections. The first section covered socio-demographic questions relating to the age, gender, income, occupation, and qualification of each respondent. The second part of the questionnaire carried 27 questions which had to be answered using a five-point Likert Scale; some of these questions were adopted from other studies previously conducted on online consumer behaviour. The scale was constructed after reviewing existing literature; it identified key elements like price offers, information security, privacy, quality, and usage.

Factor Analysis for Data Analysis:

According to Kline (1979) the ideal sample size for factor analysis is at least 100, while Catell (1978) suggested that the sample N should be at least 250. According to Tinsley and Tinsley (1987) a sample size N of up to 100 is poor, up to 200 is fair, up to 300 is good, and up to 500 entities is very good. It was observed that there were standard errors in factor loadings which might be attributed to the variability in factor loadings across repeated samples and this can be reduced by increasing the sample size. According to MacCallum. et. al (1999), the minimum sample size to be considered for obtaining a factor solution which would be stable depends on population factors. He also states that the ideal N would depend highly on the specific aspects related to that study. According to him, in certain studies a small sample is highly acceptable, but in other conditions a larger sample may be inadequate. Therefore, the researcher must understand the aspects of the study that would influence the necessary sample size before deciding on the sample. According to the variables considered for the study, the sample size seemed to be adequate to undertake factor analysis. However, before proceeding, further tests will be conducted to determine the adequacy of the sample for factor analysis.

Data Analysis

The data collected from 180 respondents was cleaned and the final responses of 167 candidates were considered for data analysis. Among the respondents surveyed, 47.3 percent were female and 50.3 percent were male. 52.3 percent of the respondents belonged to the age group of 18 to 25 years, and regularly shopped online. 27.8 percent of the shoppers had an income above ¹ 5 lakhs, and 23.7 percent of the respondents earned between ¹ 2 lakhs to ¹ 3 lakhs. 44.4 percent of the respondents who shopped online were salaried employees and 40.8 percent of the respondents were students who shopped online.

Table 1: Demographic data of the respondents

Gender					
		Frequency	Percent	Mean	Std Deviation
Valid	female	80	47.3	1.53	0.524
	Male	85	50.3		
	Prefer not to say	2	1.2		
	Total	167	98.8		
Age					
Valid	18 to 25 years	90	53.3	1.83	1.092
	26to 35 years	35	20.7		
	36 to 45 years	28	16.6		
	45 to 55 years	11	6.5		
	56 to 65 years	1	0.6		
	above 65 years	2	1.2		
	Total	167	98.8		
Income					
Valid	less than 1 lakh	22	13	3.84	1.793
	1 lakh to 2 lakhs	21	12.4		
	2 lakhs to 3 lakhs	40	23.7		
	3 lakhs to 4 lakhs	9	5.3		
	4 lakhs to 5 lakhs	28	16.6		
	above 5 lakhs	47	27.8		
	Total	167	98.8		
Employment Details					
Valid	student	69	40.8	1.86	1.029
	salaried	75	44.4		
	self employed	9	5.3		
	Business	5	3		
	others	9	5.3		
	Total	167	98.8		

A total of 91.7 percent of the respondents shopped online for various products; 51.5 percent of the respondents shopped online on a weekly basis, and 40.7 percent of the respondents shopped on a monthly basis.

Table 2: Shopping habits of respondents

Do you shop online

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	155	91.7	92.8	92.8
	No	12	7.1	7.2	100.0
	Total	167	98.8	100.0	

Table 3: Frequency of shopping

How often do you shop

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	weekly	86	50.9	51.5	51.5
	fortnightly	4	2.4	2.4	53.9
	monthly	68	40.2	40.7	94.6
	Once in a while	9	5.3	5.4	100.0
	Total	167	98.8	100.0	

Table 4: Reliability Test – Cronbach's Alpha Method

Case Processing Summary			
		N	%
Cases	Valid	166	99.4
	Excluded ^a	1	.6
	Total	167	100.0

Reliability Statistics	
Cronbach's Alpha	N of Items
.709	4

a. Listwise deletion based on all variables in the procedure.

Table 4: Reliability Test – Cronbach’s Alpha Method

A reliability test using Cronbach’s alpha was undertaken to evaluate the validity of the data collected. The test revealed that among the 167 responses received, 1 was excluded, and 99.4 percent responses were found valid; a score of 0.709 was found, indicating a high reliability in the responses, good enough to take the analysis further. A Cronbach’s alpha score of 0.709 indicates high internal consistency in the data, and it suggests that the data can be taken for further analysis. In addition, the sample was tested for adequacy to further undertake factor analysis. The factor solution was subjected to varimax rotation. A KMO (Kaiser-Meyer-Olkin) measure with a sampling adequacy value of 0.878 for the given sample indicates that the sample is adequate for factor analysis. This analysis was done using the principal component factor analysis, wherein 3 factors with eigen values above 1 were extracted. These 3 factors accounted for a total variance of over 54.73 percent. Hence these factors were considered. In addition, the scree plot confirmed the presence of three factors, after which the eigen values dropped off considerably with no significant difference between the factors.

Table 5: Sampling Adequacy Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.850
Bartlett's Test of Sphericity	Approx. Chi-Square	837.679
	df	105
	Sig.	.000

Testing Sampling Adequacy

The first factor was labelled ‘buyer benefits’. It included the following variables: variety, friends’ recommendations, convenience, COD option, and clear policies. The second factor was labelled ‘price offers’; it included discounted pricing, off season sale, buy during offers, buy one get one free, and comfortable. The third factor was labelled ‘risk awareness’; it included the following variables: quality can be compromised during sale, can be cheated sometimes, and online sites sell poor quality products.

The following three factors have been identified:

1. Buyer benefits
2. Price offers
3. Risk awareness

Table 6: Factor table

Factor Label	Variable	Factor Loading	Communality	Eigen Value
Buyers benefits	Shop online because of variety	0.751	0.652	5.252
	Prefer shopping online because of convenience	0.863	0.753	
	Buy when friends recommend	0.593	0.470	
	Shop online because of COD option	0.648	0.542	
	Buy only when policies are clear	0.670	0.583	
Price offers	Buy whenever I see something I like	0.566	0.343	1.641
	Often attracted by offers	0.784	0.638	
	Buy whenever there is buy one get one offer	0.721	0.617	
	Buy during discounted pricing	0.616	0.570	
	Shop during off season	0.576	0.490	
Risk awareness	Can be cheated sometimes	0.652	0.516	1.317
	Quality can be compromised during sale	0.622	0.609	
	Online sites often sell poor quality products	0.764	0.646	

Discussion and Implications

The variables that were considered for the study were used after reviewing the literature of various other studies. The implication of this study is that online retailers need to understand buyers' preferences and design products that buyers are looking for, while designing strategies. Online shopping allows retailers to create an aesthetically rich environment that can address hedonic shopping as well as utilitarian shopping motivations (Terry L Chiders et al. 2001). This information is helpful in designing websites in order to attract more web traffic and motivate website visitors to shop. This study gives an insight into the perceptions of consumers towards online retailers in terms of quality, and risk associated with shopping. Retailers need to improve their image with regard to quality, and build trust by bringing in tie-ups with suppliers who are trustworthy and can sell products according to buyers' expectations. Today, quality is a differentiating factor that can be used to a retailer's advantage. Perceived quality is a key construct in measuring brand equity (Aaker, 1996). Because many big brick and mortar retailers are making their online presence felt these days, it is important for online-only retailers without physical stores to take adequate measures to prevent customers from switching over to these big brands; this is possible by building strong brand equity through quality. As the online market has become a big market for many players, it is important for new online retailers to maintain quality, brand image, and safety measures rather than focussing only on low prices (Rakesh & Arpita Khare, 2012). In this study, it has been identified that the product quality, as well as the risk aspect associated with online shopping is well-understood by respondents, and they take informed decisions. It is also important that in addition to variety, online retailers also focus on quality and safety to build brand equity. It is also important that online retailers identify distinguishing features that their website can offer as against their competitors' websites, in order to attract buyers.

Conclusion:

This study infers that the shopping preferences of consumers are influenced by the benefits that they get through shopping online; at the same time, consumers are aware of the risks associated with online buying, but they feel comfortable shopping online. In addition, marketers need to identify the elements that motivate buyers and offer those elements through their websites, in order to attract more customers. Online shopping offers products at lower prices than offline retailers; this can attract the cash crunched buyer while offering variety and convenience; these aspects are able to bring a continuous inflow of buyers to websites.

This study has been conducted with a limited sample size. However, it can be undertaken with more sample groups from different cities to identify whether there are any variations in buyer behaviour across different samples. Further, a confirmatory factor analysis can be done to understand whether the identified factors are indeed relevant.

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ANALYSIS OF LEADERSHIP CAPITAL DEVELOPMENT INITIATIVES ON THE PERFORMANCE OF EMPLOYEES IN THE IT SECTOR

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Abstract

The principal of this research paper is to analyse and find out the effect of leadership capital development initiatives on the performance of employees in the IT industry, along with the mediating effect of total work experience of the employees. This research paper uses quantitative research methods and the collection of data has been carried out using questionnaires with the Likert scale for measurement. The sample used for this research paper consisted of 500 mid-level IT executives in Bangalore, from leading IT companies. The results showed that leadership capital development initiatives have strong relations with employees' performance, and the total work experience mediates the independent variables and the dependent variable.

Keywords: leadership capital, employees' performance, total work experience, IT firms, initiatives

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Introduction:

“I used to think that running an organization was equivalent to conducting a symphony orchestra. But I don’t think that’s quite it; it’s more like jazz. There is more improvisation. Build Leadership as an organizational capability” Warren Bennis

Leadership is continually judged and ‘sold’ by reputation. Leaders create their own performance measurements and they perform what they promise. Successful leaders communicate, achieve aims and strengthen relations and reputation. Failed leaders poorly communicate or never map out a vision, then often lose confidence, control and credit. The idea of leadership capital offers one possible way of understanding how leaders succeed and fail. A leader should have squandered skills, reputation, and relations over and over with his followers. Leaders always rise by toil and struggle. Leadership is a choice. (Humnath Bhandari and Kumi Yasunobu, 2009).

McGrath and MacMillan (2000) reported that there is significant relationship between leadership styles and organizational performance. Relationship between leadership style and employee performance has been discussed often in various research.

Leadership Capital is the strength of an organization. Building leadership proficiency, articulating strategies, and executing things are the greatest aspects of leadership capital that a leader can exercise in the business firm. The fundamental measure of a leader is how far-sightedly the vision and strategies for the overall growth of the organization are set. During a crisis, a leader’s leadership capabilities become more relevant in a business organization, with respect to handling the crisis and protecting the employees. The leadership capital in a business is its most valuable and important asset. Powerful leadership capital development initiatives and practices help the organization grow and achieve its business goals. Leadership capital is an elixir for business growth and development. Leadership capital guides human behaviour in the workplace; this is an absolute truth.

The competent leadership can realize the impediments together with the main problems behind. The same phenomenon can be pushed forward to the ultimate objectives with the employees functioning on the front (Avolio, Walumbwa & Weber, 2009). In the same line, several issues like authority and performance of leadership, communication skills and decision-making, intellectual capabilities and personal characteristics are the core kinematics behind. The leadership and their workforces underneath are bridged by the level of performance (Bass, Avolio, Jung & Berson, 2012).

True leadership can illuminate the entire organization across dimensions. Nothing can replace the power of leadership capital in an organization. LC always plays an important role in an organization, focusing only on the organization's holistic growth. A leader who is able to exhibit a certain leadership stature attracts employees and influences followers. Leadership capital development initiatives consist of aspects such as the power of delivering results, leadership skills, personal abilities, communication, vision, and popularity, based on leadership capital. The pre Building leadership proficiency, articulating strategies, and executing things are the greatest aspects of leadership capital that a leader can exercise in the business firm. Ailing policies, practices, initiatives, and procedures have been analysed and interpreted in this chapter.

Problem statement:

Leadership capital development initiatives stimulate and motivate employees' performance. Certain leadership capital issues in the work place may cause some problems. The problems such as poor executive involvement, not delivering effective results, lack of proper leadership skills, incompetencies can affect the employees' performance. There are also issues and challenges like communication problems, improper vision and mission may cause an inability to meet performance targets, among employees. These problems may occur due to a lack of leadership capital. This paper analyses and examines the best leadership capital initiatives, which stimulate the performance of employees. The paper intends to analyse and examine the association of the following variables.

1. Leadership capital development initiatives
2. Employees' performance
3. The mediating effect of total work experience on the two variables.

Scope of the study:

The study focuses only on exploring how leadership capital is related to employees' performance, particularly with the mediating effect of total work experience. Leadership capital in the workplace can stimulate employees' performance. Therefore the total work experience can enhance the employee's leadership skills.

The structure of the research study deals with the introduction, statement of the problem, significance of the study, and scope of the study. The research methodology is

presented with research questions, sample framework, sample size and population for the study and with sample design. Analysis of leadership capital development initiatives in IT sector was tested with Chi – Square test statistical tool for the objectives of 1, 3 and 4. Correlation coefficients are used in statistics to measure how strong a relationship is between two variables for the objective 2.

Review of Literature:

Knowledge capital based resources:

Cummings and Schwab (1973) in their study of leadership capital on employees' performances have explained that a leader gives his life to an organization, and takes care of the firm. Further they have explained that a leader, who is capable and able, moves and directs the organization with goal sets. A leader with his competencies and skills has the ability to achieve organizational goals and objectives. The study reveals that leaders are able to persuade, stimulate, and enhance performance of their employees.

Khandwalla P.N (1977) in his research article, leadership capital in IT sector studied that most of the leaders were above average in intellectual capital. It has been revealed in this study that effective leaders want to possess skills such as greater intelligence, supervisory skills, abilities, personality, initiatives, self-assurance, and an individual personality. Managers at the top level possess these skills and traits to a greater extent.

Bryman A (1986) in his book, states that good leadership is essential for business firms. Sometimes they go through difficulties and struggle to achieve their goals. The efficiency, effectiveness, and profitability are the vital features of employees' performance. The firm and the employees depend on their leaders to perform their tasks. The success of a firm is largely dependent on its leaders. A leader helps his followers to achieve their goals.

Mintzberg H (1998) in his research paper, covert leadership explained that leaders have certain personality traits in common. Personality traits are of extreme interest for leaders which leads and effects on employees' performance. Further, he observed and explained that each leadership style has multiple advocates. The qualities of a leader make an impact on employees' performance. The effective leadership is believed to enhance employees' performance.

Sossik JJ and Megerian LE (1999) in their article 'Understanding Leader Emotional Intelligence and Performance; The Role of Self - Other Agreement on Transformational

Leadership Perceptions', elaborated the results of their research regarding the role of acceptability and agreement, in leadership transformation. The authors examined that the behaviours of leaders and followers have an interconnection, and especially with the emotional management and performance. It is clearly understood from this research article that leader's emotional intelligence stimulates the self-awareness of the managers for better performance.

Taseema and Soeters, (2006) in their research study 'leadership Capital contributing factors towards employees' job performance' examined the factors affecting LC on employees' performance, and looked at the phenomenon with empirical data with this study. In this study, compensation, quality of work life and its related conflicts, and working conditions are the main contributory issues towards employees' performance.

Singh SK (2007) in his research article, emotional intelligence and organizational leadership discussed the collective measures of employees' performance of their managers. In this research, the author explained how social factors, emotions, and cognitive abilities predict employees' performance. It was observed from emotional management effectiveness that executives taking more initiatives help the better planning. Therefore, emotional capital is positively correlated to performance of leadership in IT sectors.

Hartmann F, Gil D.N and Perego P (2010) in their research study, the Effects of Leadership Styles and Use of Performance Measures on Managerial Work-Related Attitudes - identified effects of executives performance. Results show that an initiating structure leadership style affects subordinates' work-related attitudes through the use of objective performance measures.

Adair J (2002) in his article, effective strategic leadership discusses various styles of strategic leadership and how they influence the performance of employees. He emphasizes that leaders have different aspects of managers' abilities. It induces and motivates the subordinates and to work in high efficacy and zeal. The significance of the leadership is further explained in the article leaders should develop a future-oriented vision in order to improve the performance of employees. As per the author, leadership has the ability to persuade the workforce to work towards the defined objectives enthusiastically.

Ismail, et al. (2011) wrote an article entitled Interaction between Leaders and Followers as an Antecedent of employees performance. It is an empirically proven evidence study. It was carried out in Malaysia, with a sample size of 200. It was analysed, and the reliability of the data proved to be valid. The research findings were confirmed that there is an interaction

between followers and leaders, which acts as a full antecedent of the employees' performance.

Oladipo Kolapo Sakiru, Jamilah Othman and Aliyuyero (2013) in their research article titled, 'relationship between leadership and employee productivity in an organization' examined the interconnectedness that exists between employees' performance, and leadership. It describes the level of motivation and ability of the employees and its effects on the productivity of the organization. Leadership always remains sensitive in modern organizations.

C. Laxman (2014) in his research paper, 'leveraging human capital through performance management process: the role of leadership in the USA, France and India', analysed the role of human capital. The focus is on the conversion of tacit to explicit knowledge. It shows a high and positive impact of leadership capital. Performance enhancement strategies and critical interactive behaviours build strong perceptions on leadership.

Iqbal N, Anwar S and Haider N (2015) through their research study titled, 'Effect of Leadership Style on Employee Performance', investigated leadership effectiveness and its styles, which are practiced in business firms, and their impact on the performance of the employees. The main objective and aim of the study, was to understand the effectiveness of different leadership styles. Democratic and participative leadership styles played a significant role on employees' performance.

Tri Prihatini.(2016); in his research study, 'The Determinants of Employee Performance: Role of Human Development processes', examined the employees' performance. Some previous researchers studied the problem on employees' performance was caused due to lots of factors. The research aim was to know and analyse the determinants of employee performance based on human capital process. The three most dominant factors are-outsourcing employees, leadership, and people development. Leadership is an important factor which plays a key role in influencing decision making skills of employees. The culture and fairness of management can encourage employee performance.

Abdul Basit, Zubair Hassan and Veronica Sebastian (2017) in their research article, 'Impact of Leadership Style on Employee Performance (A Case Study on A Private Organization in Malaysia)' identified the impact of leadership styles on employees' performance. The employees' performance is associated with most significant values of the leadership style. The most preferred leadership style appears to be democratic leadership, followed by laissez-faire leadership; autocratic leadership appears to be least preferred. The democratic leadership style has the highest mean value. It has been found that the autocratic style of

leadership is poorly correlated with employee performance. Autocratic leadership has a negative impact on employee performance.

Mohammed Al-Malki and Wang Juan (2018) in their article, 'Leadership Styles and Job Performance: a Literature Review', emphasized the need and importance of the impact of leadership styles on employees' performance. The article suggests that the job performance has focused on the leadership styles. The article shows how the leadership types and styles are highly connected to the productivity in the organization. Further, authors found that the leaders claimed that there is a positive impact on the effectiveness and the efficiency of the organization. The study found that there is a major impact of job performance on leadership influence and vice-a-versa.

Methodology:

This is an empirical research carried out using the survey method. It is descriptive and analytical. A structured questionnaire was prepared to find out prevailing levels of Leadership Capital Development Initiatives in IT sector, and their impact on employees' performance with respect to IT companies in Bangalore.

Objectives:

1. To analyse the impact of leadership capital development initiatives on IT executives in Bangalore.
2. To identify the factors influencing leadership capital development initiatives.
3. To find out the relationship between leadership capital and employees' performance.
4. To find out the relationship between leadership capital and total work experience.
5. To provide suggestions based on the findings of the study.

Research Questions:

1. What are the different practices and initiatives undertaken to enhance leadership capital in IT companies?
2. To what extent is the organization familiar with the concepts of leadership capital in the workplace?

3. How to identify the factors influencing leadership capital development initiatives?
4. Which leadership capital development initiatives are most preferred by employees?
5. What is the relationship between the leadership capital and the total work experience of the employees?

Table 1: RELIABILITY OF THE INTERVIEW SCHEDULE

	Leadership Capital Development Initiatives	Extraction
1	The firm provides executive involvement and ownership of leadership development	.822
2	The firm provides leadership programs for all levels (New, Next Generation, Senior Leaders)	.841
3	The firm maintains clear current succession plans and programs	.858
4	The firm provides focused leadership programs for millennial.	.886
5	The leader is able to exhibit leadership stature	.894
6	The role of managers in the organization is like a role model in employees' development	.861
7	The firm's leadership is managing the change well	.865
8	Problem solving and decision-making skills are good	.808
9	Setting a vision and forming strategies is good	.857
10	The firm develops the leadership in the firm	.832
11	The top managers make sure that the employees are enjoying their work	.866
12	When an employee does good work, his/her supervising officer takes special care to appreciate it	.822
13	The employees are treated more humanely by the firm	.852
14	The firm's leadership capital development initiatives enhance the employees' performance	.842

Table 1 shows the result of principle components analysis indicate the second stage in exploratory factor analysis. In that, proportion of each variables variance has given under communalities and it is defined as the sum of squared of factor loading variables.

The initial values are indicating the diagonal of correlation matrix and extraction values indicates the proportion of each variables variance and it help to determine retained variables.

SAMPLE FRAMEWORK

Sample size and population for the study:

The study is limited to five leading IT companies in Bangalore. From the records made available to the researcher by the Human Resource Development departments of the five selected organizations, the staff strength (population) in these organizations is as follows:

There are 200 IT companies in Bangalore as per the statistical data collected from Bangalore city, also known as the Silicon Valley of India. This research was carried out in five leading IT companies in Bangalore. The researcher has selected these companies because it has been found that the human capital concepts are known to these firms, and their applications are practised in these firms.

Data collection

The study is based on both, primary and secondary data collection. The research scholar collected data from the respondents through a questionnaire with a Likert scale for measurement. The respondents were 500 mid-level IT executives working in five different IT companies.

R software calculation

$$N = Z^2 * Sd^2 / E^2$$

Z = Z value based on Z distribution at 5% level is 1.96

Sd = 1.14, which is obtained from the pilot study

E = margin of error, which is fixed as 10% or .10

This computation obtained the sample size of 500

SAMPLE DESIGN

500 IT executives working in five standard multinational IT companies were selected, representing different departments such as the software development department, the energy department, the techno giants department, the quality assurance department, and the insurance/service department, using the stratified random sampling method. Moreover, convenience sampling was adopted to collect data from the executives of the IT companies.

Table 2
Leadership Capital Factors-Reliability Analysis
Scale reliability statistics

Particular	Mean	SD	Cronbach's α	McDonald's ω
Scale	3.90	0.83	0.97	0.97

Source: Primary Data

The above table 2 shows that Cronbach's alpha is 0.97, which indicates a high level of internal consistency of items of leadership capital. The table shows the reliability of LC variables, that indicates different measures such as Cronbach's alpha is 0.97 and McDonald's omega value is also 0.97 and the value of standard deviation is (SD) 0.8. Therefore, it indicates a high level of internal consistency of items of leadership capital. Reliability analysis has been used to find out the level of internal consistency of items.

LEADERSHIP CAPITAL AND TOTAL WORK EXPERIENCE-**Chi-square test**

Total work experience is measured based on the number of years for which employees have gained rich experience in their career. The total work experience plays a significant role in understanding the LC in the IT sector. Experienced employees have a lot of insights and understanding of the present practices of LC, which is required to present and predict the future to some extent, based on the total experience of the employees. The assumption is that more work experiences can make employees better leaders. In order to assess the associations and relationship between the total work experience of the employees and LC practices and policies in IT firms, the Chi-square test has been used. The null hypothesis is that total work experience does not influence the LC.

Table 3

Leadership Capital Development Initiatives Chi-square test

<i>Experience</i> Response	<i>5 to 10 years</i>	<i>11 to 15 years</i>	<i>16 to 20 years</i>	<i>21 to 25 years</i>	<i>Total</i>	<i>Chi - Square</i>	<i>P - Value</i>
The firm provides executive involvement and ownership of Leadership Development						32.647	.001
Strongly Disagree	8	2	2	0	12		
Disagree	16	2	2	0	20		
Moderate	60	8	2	0	70		
Agree	158	34	36	2	230		
Strongly Agree	136	28	2	2	168		
Total	378	74	44	4	500		
The firm provides Leadership programs for all levels (New, Next Generation, Senior Leaders)						12.720	.390
Strongly Disagree	8	2	2	0	12		
Disagree	18	2	2	0	22		
Moderate	64	12	4	0	80		
Agree	198	38	32	2	270		
Strongly Agree	90	20	4	2	116		
Total	378	74	44	4	500		

The firm maintains a clear and current succession of plans and programs						35.888	.002
Strongly Disagree	8	2	2	0	12		
Disagree	26	2	0	0	28		
Moderate	64	14	16	0	94		
Agree	162	34	22	2	220		
Strongly Agree	118	22	4	2	146		
Total	378	74	44	4	500		
The firm provides focused Leadership programs for millennial						20.569	.057
Strongly Disagree	10	2	2	0	14		
Disagree	28	2	0	0	30		
Moderate	78	12	12	0	102		
Agree	186	36	28	2	252		
Strongly Agree	76	22	2	2	102		
Total	378	74	44	4	500		
The Leader is able to exhibit Leadership stature						17.74	.124
Strongly Disagree	18	2	4	0	24		
Disagree	16	2	0	0	18		
Moderate	60	10	12	0	82		
Agree	170	40	24	2	236		
Strongly Agree	114	20	4	2	140		
Total	378	74	44	4	500		

Managers' role in the organization as a role model in supporting employees' development						31.973	.001
Strongly Disagree	12	0	4	0	16		
Disagree	18	4	0	0	22		
Moderate	72	14	4	0	90		
Agree	176	26	32	2	236		
Strongly Agree	100	30	4	2	136		
Total	378	74	44	4	500		
The firm's Leadership is managing the change well						27.681	.006
Strongly Disagree	12	2	2	0	16		
Disagree	32	2	0	0	34		
Moderate	66	14	10	0	90		
Agree	146	34	30	2	212		
Strongly Agree	122	22	2	2	148		
Total	378	74	44	4	500		
Solving problems and decision making skills are good						15.265	.227
Strongly Disagree	12	2	2	0	16		
Disagree	22	2	0	0	24		
Moderate	62	12	10	0	84		
Agree	176	34	28	2	240		
Strongly Agree	106	24	4	2	136		
Total	378	74	44	4	500		

Setting vision and strategies are good						35.187	.000
Strongly Disagree	8	2	2	0	12		
Disagree	26	0	0	0	26		
Moderate	76	8	14	0	98		
Agree	150	48	24	2	224		
Strongly Agree	118	16	4	2	140		
Total	378	74	44	4	500		
The firm develops the Leadership within the firm						16.544	.168
Strongly Disagree	12	0	2	0	14		
Disagree	18	4	0	0	22		
Moderate	62	14	12	0	88		
Agree	176	36	26	2	240		
Strongly Agree	110	20	4	2	136		
Total	378	74	44	4	500		
The Top Managers make sure that the employees are enjoying their work						21.170	.048
Strongly Disagree	12	2	2	0	16		
Disagree	30	2	2	0	34		
Moderate	62	14	6	0	82		
Agree	170	40	32	2	244		
Strongly Agree	104	16	2	2	124		
Total	378	74	44	4	500		

When an employee does good work, his/her supervising officer takes special care to appreciate it						29.084	.004
Strongly Disagree	14	2	2	0	18		
Disagree	18	4	2	0	24		
Moderate	86	12	2	0	100		
Agree	166	36	36	2	240		
Strongly Agree	94	20	2	2	118		
Total	378	74	44	4	500		
The employees are treated more humanely by the firm						37.905	.000
Strongly Disagree	12	0	4	0	16		
Disagree	26	6	0	0	32		
Moderate	54	10	6	0	70		
Agree	162	40	34	2	238		
Strongly Agree	124	18	0	2	144		
Total	378	74	44	4	500		

Source: Primary data

The Table 3 depicts that there is an association between total work experience and the factors affecting LC, such as: the firm provides executive involvement and ownership of leadership development, the firm maintains clear and current succession plans and programs, the firm provides focused leadership programs for millennial, managers' play the role of a role model in the organization when it comes to supporting the employees' development. The firm's leadership is managing the change well, setting a vision, and the strategies are good. The top managers make sure that the employees are enjoying their work; when an employee does good work, his/her supervising officers take special care to appreciate it, and the employees are treated more humanely by the firm. It is also found that there is no relationship between total work experience and the factors affecting LC, such as: the firm provides leadership program for all levels, the leader is able to exhibit leadership stature, problem solving and decision making skills are good, and the firm develops the leadership within itself. The P value and all the variables of LC are less than 0.05, except the four variables. Hence, the null hypothesis is rejected for all the factors of LC with total work experience, except four variables. This means, that except the four variables, the total work experience influences the LC in the IT sector.

Table 4
Factors of Leadership Capital - Correlation Matrix

Correlation Matrix												
	lc1	lc2	lc4	lc5	lc6	lc7	lc8	lc9	lc10	lc11	lc12	lc13
lc1	—											
lc2	0.74 ***	—										
lc4	0.68 ***	0.72 ***	—									
lc5	0.74 ***	0.68 ***	0.75 ***	—								
lc6	0.67 ***	0.68 ***	0.78 ***	0.78 ***	—							
lc7	0.75 ***	0.65 ***	0.76 ***	0.79 ***	0.79 ***	—						
lc8	0.69 ***	0.68 ***	0.76 ***	0.71 ***	0.76 ***	0.80 ***	—					
lc9	0.75 ***	0.72 ***	0.70 ***	0.78 ***	0.71 ***	0.79 ***	0.78 ***	—				
lc10	0.71 ***	0.71 ***	0.75 ***	0.68 ***	0.72 ***	0.72 ***	0.75 ***	0.75 ***	—			
lc11	0.78 ***	0.63 ***	0.69 ***	0.74 ***	0.68 ***	0.78 ***	0.70 ***	0.76 ***	0.76 ***	—		
lc12	0.72 ***	0.71 ***	0.80 ***	0.73 ***	0.76 ***	0.76 ***	0.74 ***	0.71 ***	0.74 ***	0.76 ***	—	
lc13	0.74 ***	0.66 ***	0.69 ***	0.79 ***	0.73 ***	0.75 ***	0.69 ***	0.72 ***	0.68 ***	0.76 ***	0.71 ***	—

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 4 shows the correlations analysis of leadership capital; all the items are positively and strongly correlated; all the value of all items is more than 0.7. It indicates that all variables of the leadership capital are positively and strongly correlated. Correlation coefficients are used in statistics to measure how strong a relationship is between two variables.

Descriptive factors of Leadership Capital (LC 1 to LC 12), which are mentioned above in the correlation matrix table are as follows:

LC 1 The firm provides executive involvement and ownership of leadership development	LC 8 Problem solving and decision making skills are good
LC 2 The firm provides leadership programs for all levels (New, Next Generation, Senior Leaders)	LC 9 Setting a vision and forming strategies is good
LC 3 The firm maintains clear and current succession plans and programs	LC 10 The firm develops leadership within itself
LC 4 The firm provides focused leadership programs for millennial	LC 11 The top managers make sure that the employees are enjoying their work
LC 5 The leader is able to exhibit leadership stature	LC 12 When an employee does good work, his/her supervising officer takes special care to appreciate it
LC 6 Managers play the role of a role model in supporting employees' development	LC 13 The employees are treated more humanely by the firm
LC 7 The firm's leadership is managing the change well.	LC 14 The firm's leadership capital development initiatives enhance the employees' performance

Managerial implications: The basic aim of this research is to help IT companies to manage the Leadership Capital Development Initiatives in the workplace. Future initiatives have to become more innovative. The company needs to focus more on the leadership programs at all levels. The firm needs to provide and concentrate more on providing proper and appropriate leadership programs for all the executives. The research provides the scope and it calls for action from the management to strengthen the problem solving and decision making skills. The leadership needs to be developed from within the firm, and there is a need to strengthen the leadership stature. The present scenario in context of the Covid-19 pandemic has created a lot of chaos in connection with dealing with employees, especially with respect to winning over the hearts of employees and building trust.

Discussion of Findings:

It has been found through the Chi square test that there is an association between the total work experience and the factors of LC, except with respect to four variables. Since the p value is less than the significant value of 0.05, except in the case of four variables, the null hypotheses are rejected. This means that except in the case of the four variables, the total work experience influences the LC in the IT sector.

The result of the study indicates that the IT sector is not up to the mark in providing leadership programs across all levels (New, Next Generation, and Senior Leaders). It signifies that firms need to concentrate more on providing proper and appropriate leadership programs for all these executives through the process of identifying appropriate leadership development activities, and personal leadership action plans related to leadership styles, abilities, strengths, and weaknesses.

The leadership of IT companies is able to manage the changes in the organization well. It is recommended that these exercises of managing changes and leadership are continued for the unpredictable business world of the future. Effective leadership is essential in managing change, and it should percolate down to the whole organization. In today's business organization, change is the only method to sustain the organizational success. In the current business environment, especially in context of the Covid-19 pandemic effective leadership skills are required to gain the trust of employees during crisis.

The reliability test has been used to identify the internal consistency of variables. After that, the correlation matrix has been used to analyse the relationship between the LC variables. It has been observed and noted from the correlation matrix analysis of LC, that all the items are positively strongly correlated. The correlations analysis of leadership capital and the values of all items are more than 0.7. It has been found through the correlation matrix that the highest relationship exists between the following items. (LC 12) When an employee does good work, his/her supervising officer takes special care to appreciate it and (LC 4) the firm provides focused leadership programs for millennial (0.80); (LC 7) The firm's leadership is managing the change well and (LC 5) the Leader is able to exhibit leadership stature (0.79); (LC 9) Setting a vision and forming strategies is good and (LC 7) reveals that the firm's leadership is managing the change well (0.79); (LC 11) The top managers make sure that the employees are enjoying their work and (LC 1) the firm provides executive involvement and ownership of leadership development (0.78); (LC 9) Setting a vision and forming strategies and (LC 8) solving problems and decision making skills are good (.0.78). The findings are from correlation matrix that is showing accurate results. All the criteria of the statistical process and analysis have been fulfilled.

Recommendations

Problem solving and decision making skills are needed for improvement in the organization. The organization must demonstrate good decision making skills by using critical thinking skills, taking decisions under pressure, and helping teams to overcome obstacles. The organization also needs to focus on problem solving skills through researching skills,

employing team work, and enhancing emotional intelligence.

Setting a vision and forming strategies is good, but, as the research findings indicate, it is not enough. The organization requires a more focused vision, and strategies to take the organization to the next challenging level. Setting a vision, mission, and strategies for the firm is required. There is a need to focus strategically to take the organization to next challenging level by sharing the company's values, knowing the exact business goals, and through forward thinking.

The supervising officers and executives take special care to appreciate employees when they perform well. This makes a major impact on employees' performance, and it is very motivating and encouraging for employees; it also instils in them, a sense of belonging vis-a-vis the organization. Today many employees are looking for this psychological and non-monetary appreciation from employers. Internal recognition and appreciation, and financial incentives could also be considered by firms.

The firm may provide a focused leadership program for millennial in making transformational leaders for IT companies in future. The firm may be organizing different types of leadership development programs for millennial. Dealing with millennial is a challenging task for firms. Therefore, it is recommended that the firm continuously and creatively engage the future millennial workforce, by providing immediate feedback, and excellent learning and development programs.

There are lots of employees who always contribute at the workplace with good suggestions, and yet their suggestions aren't always met with agreement from others. The organization must overcome these issues by holding meetings so that the employees can engage with each other. When people work together, disagreements will occasionally happen. These days dealing with employees who don't blend in with the workplace culture is a necessary step; this can be managed by resolving employees' conflicts. Therefore, it is required that software companies offer advice cautiously and solve problems together.

Employees striving for excellence in everything that they do are an encouraging stimulation for employees at workplace. It indicates that employees learn, improve, and grow. But this attitude may not always be there in the workplace. The confidence level of employees may not be the same at all times. Therefore, it is suggested that the firm adopt strategies that always keep encouraging and motivating employees by communicating the right thing at the right time, and by creating a united team atmosphere.

Conclusion:

It has been assessed and analysed that there are substantial evidences which prove that there is a positive relationship between leadership capital and employees' performance. Positive associations and relations between leadership capital initiative factors taken by the IT firms have revealed meaningful relations and impacts on employees' performance. The leadership capital factors such as the power of delivering results, leadership skills, and personal abilities of the leader, leadership communication, vision, and leadership popularity have a powerful impact and dependency, and they correlate with all 13 factors of variables. In this analysis, the leadership capital has been found to be positively linked with strong support of the data that was collected from the respondents.

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Appendix- Questionnaire

Leadership Capital Development Initiatives: The Power of Delivering Results = (Leadership Capital= Leadership Skills, Personal Abilities, Communication, vision and Popularity).

S.No	Measurable factors	5	4	3	2	1
		SA	A	M	D	SDA
1	The firm provides executive involvement and ownership of Leadership Development					
2	The firm provides Leadership programs for all levels (New, Next Generation, Senior Leaders)					
3	The firm maintains a clear and current succession of plans and programs.					
4	The firm provides focused Leadership programs for millennial.					
5	The Leader is able to exhibit Leadership stature					
6	Managers' role in the organization as a role model in supporting employees' development.					
7	The firm's Leadership is managing the change well.					
8	Solving problems and decision making skills are good.					
9	Setting vision and strategies are good.					
10	The firm develops the Leadership within the firm.					
11	The Top Managers make sure that the employees are enjoying their work.					
12	When an employee does good work, his/her supervising officer takes special care to appreciate it.					
13	The employees are treated more humanely by the firm.					

Guidelines to Contributors

1. Original research papers, articles, case studies, executive experience sharing, and book reviews on business and areas connected with management are welcome.
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