

INTRODUCTION TO PROJECT MANAGEMENT

Sumit Kumar
Dr. Jayakrishna Udupa



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CHAPTER 1

SURVEY ON IMPACT OF INFORMATION TECHNOLOGY IN BUSINESS OPERATION AND MANAGEMENT

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ABSTRACT: *The relationship between information technology (IT) and the evolution of company operations is examined in this essay. We assess the regional demand for customer service contacts across businesses. Districts serve as differentiated products in the framework, which is a unique selection model. The effects of IT are assessed in terms of customer size, location choice, and cost containment using the estimated demand structure. The findings support the increased cost sensitivity of IT-focused businesses, but they also suggest that the capacity to use cost differences is largely company-specific and that the impact of externalities with limited geographic reach is even present. Companies have a motivation to need cooperative funding in technology across the business because the productivity of many IT phenomena based on networks results in the edge productivity caused by the acceptance of a technology by a site being higher if the rest of the company accepts this technology as well. In order to study this equilibrium, we develop a mathematical model and derive experimental hypotheses that link the range of IT-funding to the distribution of decision-making authority.*

KEYWORDS: *Business Operation, Customer Service, Information Technology, Management.*

1. INTRODUCTION

Businesses may now support modest benefits beyond conventional barriers, particularly geographical ones, because to advancements throughout information technology (IT) over the last several years, as well as particularly owing to the widespread expansion and adoption of commercial application. The recommendations of this significant rearrangement of work are broad and have an impact on businesses, employees, and ultimately, national or worldwide policy. In fact, the political resurgence that outsourcing activities have caused shows how crucial the issue has become for businesses and the whole economy. However, there is little systematic analysis of how much more flexible organizations have become in hiring as a result of their investment in IT and whether the straightforward pattern that the idea of the company as an integrated whole will give way to a network of freely coupled individuals is a true representation of reality[1]–[3].

IT has assumed a big role in the ambitious market-leading pioneer businesses' strategic planning. Particularly among IT implementations, e-commerce and e-business have been separate. The acquisition of a competitive advantage in the value chain and the development and gradation of core decencies are two key factors that may be utilised to analyse the function of IT. Numerous issues with IT project outcomes and management success have been looked at.

Success, or more accurately effectiveness, is determined by how well an information system's or IT request's outputs meet the needs of the business and accomplish its objectives while also raising the bar for that organization. There is widespread agreement on the challenge of finding evidence of returns on IT spending, despite the fact that this challenge may be plausibly explained. Businesses should evaluate IT performance to allow for the strategic alignment of the objectives of installed IT applications and their outcomes with the

company's business vision in order to make better use of these funds[4], [5].Figure 1 illustrates the major benefits of the IT in business operation.

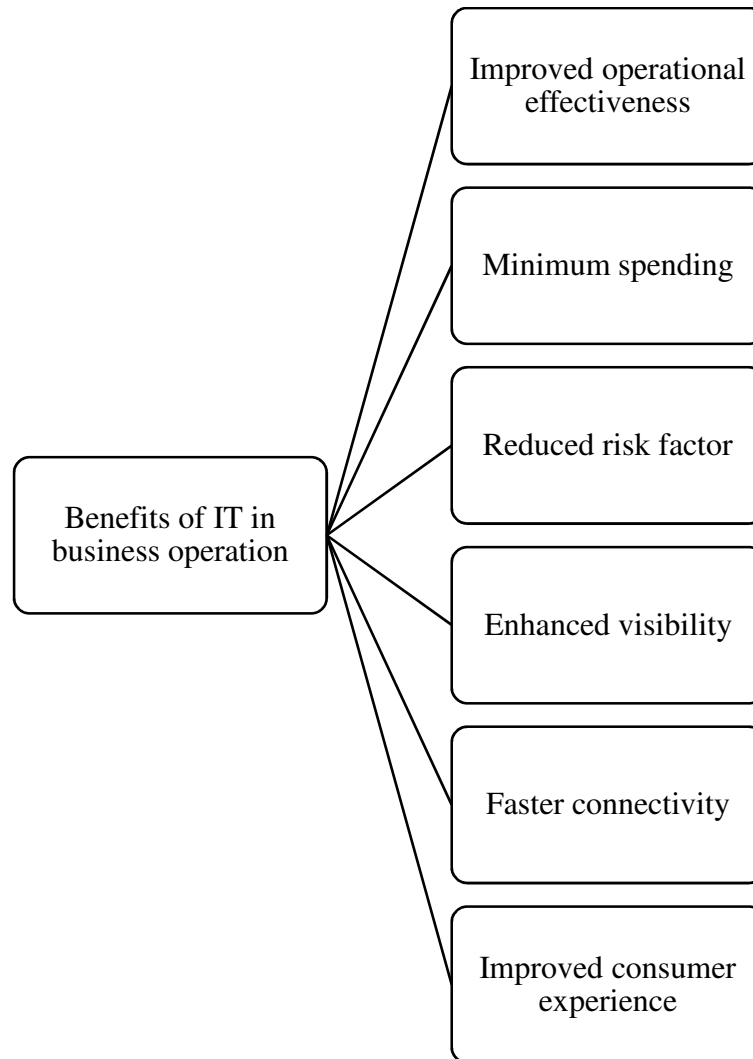


Figure 1: Illustrates the major benefits of the IT in business operation [Source: Google].

Since the firm's position is always changing to take into account market realities and dynamics, the distinction and evaluation of business and IT strategies as well as between business and IT structure must be an ongoing activity. IT has often been seen as one of the internal and external causes of organisational substitution. In reality, the capacity to handle and exchange massive volumes of information electronically for very little money has a lot to say about how businesses and markets should be structured. Some IT researchers looked at how IT may affect whether business transactions take place within or outside of the firm[6]–[8].

In this case, procedures are often more in line with the company than a market. The degree of intricacy involved in the procedure is the second feature that sets economic proceedings apart. The likelihood of an internal adjustment increasing with process complexity. IT has an impact on both of these fields. Assume that a business decision is altered because it requires intricate data processing and entails a high degree of benefit specificity. Information solutions, such those that enable adaptive manufacturing practises, will make it possible for businesses to switch production lines more quickly, enhancing the benefit's alternative worth outside the relationship and lowering the chance of being "stuck" in it ex-post. Similar to how

huge databases, powerful querying tools, and automated production processes will lessen the difficulty of the work. Then, previously modified internal company procedures will shift in favour of market-based procedures. In that regard, the IT industry may be a more effective market. Figure 2 illustrates the major role of IR in business operation[9], [10].

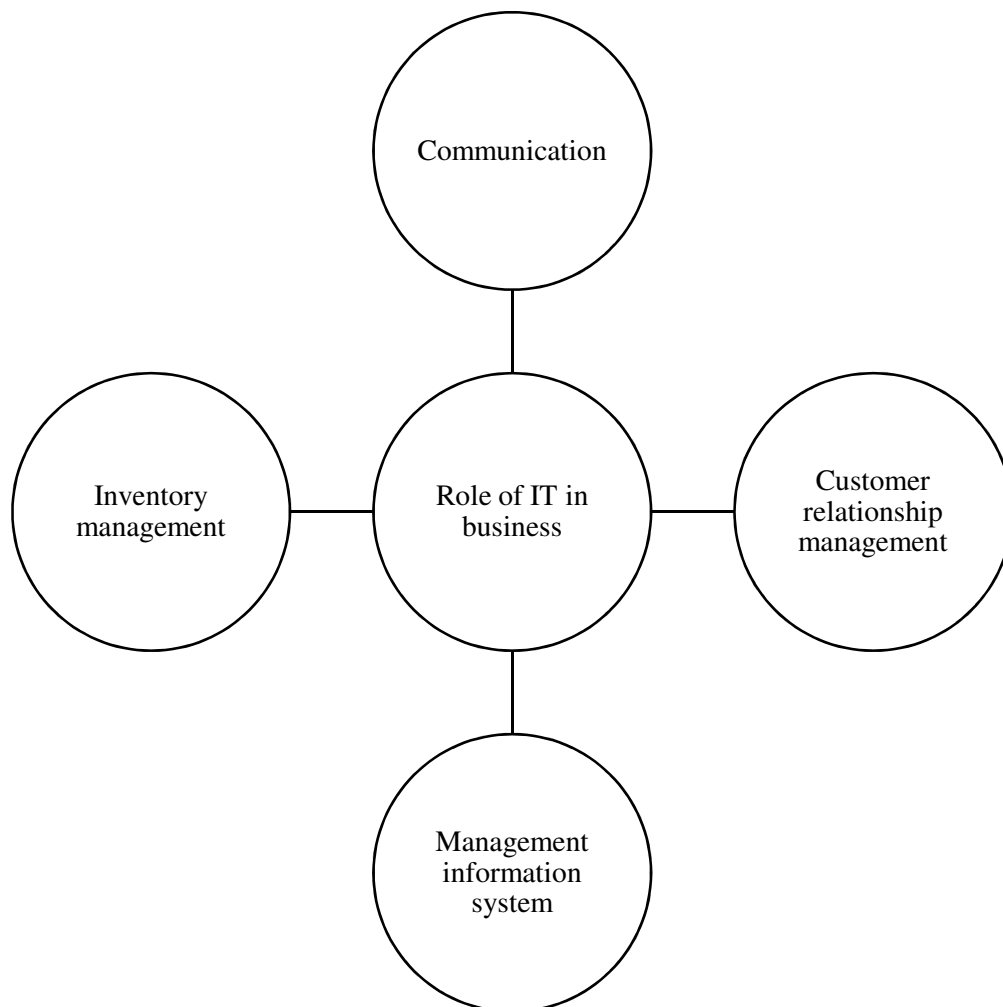


Figure 2: Illustrates the major role of IR in business operation [Source: Google].

In the corporate sector, communication is crucial to preserving relationships with clients, suppliers, and workers. Thus, by using IT, we can make it simpler to interact through e-mail, video chat, or social networking sites. Businesses must have enough inventory on hand to fulfil demand without buying more than they need. Inventory management systems use a method of inventory management to determine the number of each item a firm keeps and an order of extra stock. It has grown increasingly crucial since businesses must have adequate inventory on hand to satisfy client demand. Utilizing IT for inventory management also makes it easier to keep track of how many of each item a business has on hand, which is helpful for controlling inventory[11]–[13].

Information data is a crucial resource for an organisation and is necessary for providing safe and effective treatment. Data is employed in a strategic plan to accomplish the goal and objective. In order to monitor sales data, expenses, and productivity as well as information to track earnings occasionally, maximise return on investment, and identify areas for development, the organisation should employ a management information system (MIS). IT is being used by businesses to enhance how they plan and manage client relationships. CRM (Customer Relationship Management) systems record every interaction a business has with a

customer, allowing for increased customer satisfaction. The customer service representative will be able to see what the consumer has bought, examine shipment details, bring up the training manual for that item, and efficiently address the issue if they get a call from a customer reporting a problem.

In the future, technological development will only quicken in the current high-technology environment. Productivity within an organisation relies on the proper integration of relevant technologies. Organizations have undergone a full reorganisation as a result of technological breakthroughs that have made corporate operations more efficient and seamless than before. Previous research has shown that using technology increases the impact of ICT. When a technology needs difficult new skills, is costly to install, and takes a long period, adoption is likely to be delayed. Organizations must alter their strategies, procedures, structures, and cultures if they want to survive the flurry of competition. To guarantee that the process of changing proceeds without a hitch and that the strategic objectives of the changes are achieved, selecting the appropriate model for a planned change is of the highest significance[14], [15].

Technology is advancing at an astounding rate and is quickly taking the lead in helping all organisations, public and commercial, address the challenge of increased productivity. For an organisation to be successful, it must be able to compete both domestically and internationally. Business operations are what an organisation does on a daily basis. They may be seen in the processes across the organisation that must be completed for sales requests, work approvals, and financial reporting. These procedures may significantly alter how an organisation does business and become established in the company's culture. Even though changing business procedures might be challenging, doing so may be vital if the firm is to benefit from the information technology at its disposal.

Since the beginning of time, there has been business. If the history books are to be believed, it may have started out as nothing more than barter commerce, but it has since evolved into something far more sophisticated, and none of that would have been possible without technology. If companies suddenly lost access to and use of information technology, the main industries of the world would collapse. This is because, in the twenty-first century, the majority of corporate processes and transactions need the use of technology. The development of technology has accelerated trade and commerce throughout time. Many conventional company strategies and ideas underwent radical change as a result of technology. With the help of technology, we were able to adopt new viewpoints and methods for performing things that we were already doing. Additionally, technology has improved our ability to do business.

Technology is essential to company in a number of areas, including accounting systems, point-of-sale systems, and other intricate components of day-to-day operations. Technology gave rise to even something as simple as the calculator, which was groundbreaking in its day. It is difficult to envisage returning to physical labour. We would go back around 100 years.

We can automate many tasks thanks to technology, which boosts our productivity. This is achievable because it allows us to employ less resources, which allows us to increase quality while lowering costs and speed up delivery to clients. The outcome has made it feasible to assist even more individuals. Additionally, technology makes it simple to store more data while protecting its integrity. We are better equipped to safeguard sensitive and private data so that a data breach won't compromise it. When required, the data may be downloaded rapidly, and it can be examined to look at both past and prospective patterns. Consequently, this could facilitate decision-making.

A component of business is communication. Therefore, business is a network of intricate processes that interact with one another due to transportation and operations. Technology has made it easy to expand commercial operations internationally. Nowadays, anybody may do business from any room in their home, almost anywhere. Businesses may now access a bigger global audience thanks to technology. The World Wide Web and the internet serve as the finest examples of this. The internet is now an essential component of every company's marketing strategy since it allows the company to draw clients from all over the globe. When technology and business are effectively combined, life itself has become worthwhile. But it would be stupid to ignore the fact that technology also poses risks to business. These include nefarious actions taken by people or groups, such hacking. Because of this, it's crucial for companies to utilise technology responsibly. Technology has various drawbacks as well as benefits, some of which need to be addressed. Nevertheless, despite all the baggage, it is something that we must recognise and appropriately use to improve our company. Figure 3 illustrates major impact of IT in business management.

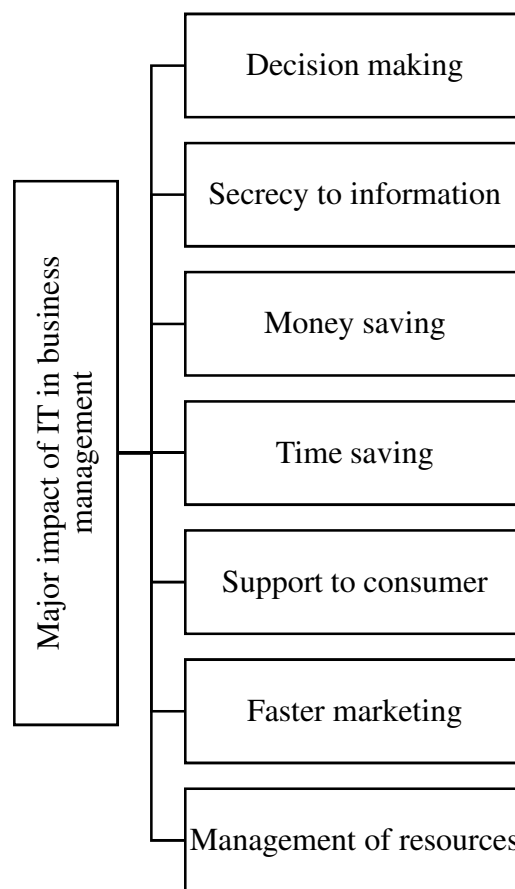


Figure 3: Illustrates major impact of IT in business management.

The Industrial Revolution drastically altered the economic landscape by streamlining many procedures and tripling production. The commercial environment, however, remained largely unchanged over the next century. It is reasonable to conclude that nothing will ever be the same again because of the technological revolution and the use of technology in business, which caused even more disruptive changes than the Industrial Revolution did. All companies are being carried away by the flood of technological change and adaptation at an exponential pace, whether or not they are prepared for it. Even while it may not seem like we've made much progress, even five years ago, there was no consumerism on social media,

no usage of mobile devices for business, no cloud-based solutions, no App Generation, and omni-channel marketing was still in its infancy. Technology has significantly altered almost every element of business, and this has never occurred so quickly in recorded history.

Many people consider mobility to be the next big thing in business. This is reflected in Google's algorithms, which give preference to mobile webpages. You can manage your company and every element of it with only a tablet or smartphone. You have control over everything, including content marketing, customer service, sales, and back-end tasks like billing and shipping. However, mobile solutions aren't only for companies; they also cater to consumers. The millennial generation utilises their phones for a variety of tasks, including purchasing, selling, connecting with friends, and discovering local companies. Businesses may now use the internet to outsource many of their tasks to third parties thanks to cloud computing. In addition to handling changeable data packages, it enables organisations to grow quickly and adopt mobility without having to worry about things like crashes, downtime, and lost data. Due to this, small and medium-sized firms now have access to resources that were previously beyond of their price range. The field of play has really been levelled.

Since more and more data is being generated, it is now much simpler to evaluate it and acquire a comprehensive understanding of what consumers want. As analytics services grow, firms can divide their prospects into ever-more-specific groups, making it much simpler to target them and getting more bang for their ad dollar. A company may learn a lot about a customer by utilising something as easy as their Google account, such as their location, the kind of browser they're using, how they found the website, what they did there, how long they're likely to remain, and when they decide to leave. Businesses may optimise this segmentation even more with even more sophisticated analytics services, which will significantly increase their conversion rates.

People may now remain in contact more easily thanks to technology. Mobile technology and the ongoing innovation in the sector have allowed communication to reach a new level of hyper-realism, whether you're wanting to send email blasts to prospects or video chat with your employees and coworkers. To enable what is known as a "buyer's market," two key factors have come together. These include the fact that the hardware and software required to develop the essential software solutions have become more inexpensive as well as the growing number of tech-savvy entrepreneurs who are using these technologies every day. A major corporation would formerly need roughly a year to construct a back-end inventory system. Nowadays, it just takes a few recent college grads a few weeks to construct the same thing. Businesses don't have to spend a lot of money in the solutions since they are readily available and relatively simple to use, which has simplified business.

Now that they are of legal drinking age, millennials are the engine behind the contemporary economy. Millennials will soon make up more than half of the American workforce, and they will also soon reach their peak level of wealth, when they will have a lot of money to spend and few debts, giving them a lot of disposable income. They are more numerous than baby boomers and far more generous with their money. They are also all about getting satisfaction right away. Additionally, they grew up using the internet. They are prepared to spend, tech-savvy, and connected. If businesses want to succeed, they must adjust to this new client base.

You can no longer only assume that your company functions in a vacuum. Because of social networking, people can connect with one other regardless of who they are, where they are from, or how affluent they are. Prior until a few years ago, mediocre customer service was sufficient to get by. Now you have to work harder if you don't want bad reviews on review

websites and people ranting about your service on social media. Therefore, companies must be cautious about their internet reputation and improve their digital footprint.

2. DISCUSSION

Businesses are advised to maintain modern IT infrastructure in order to maximise productivity. Companies should not be afraid to make adjustments when necessary since technological development is also important. Future study on knowledge management's detrimental effects on organisational productivity is advised. The study, which provides measurement and a structural model of the influence of technology adoption on organisational productivity, theoretically closes a research gap in this area. The report also emphasises how big of an influence this is. The research makes a variety of contributions to management implications. Managers may link problems with organisational productivity to the use of technology, and these problems can be addressed by looking at the IT infrastructure and knowledge management of the firm. Additionally, it affects how the firm decides whether to spend in upgrading its IT infrastructure.

Technology is playing a bigger role in our everyday lives these days. It has an impact on people, communities, enterprises, and the country. influence of modern technology on the corporate sector. It has aided in administration, production, marketing of communication goods, and more straightforward modular design. Information technology, sometimes known as IT, is a broad term used to describe the management of information via the use of computers and software. Any aspect of computer technology, including networking, hardware, software, the Internet, or the individuals who work with these technologies, is referred to in this phrase. Nowadays, a lot of firms have IT departments that are in charge of managing the computers, networks, and other technical aspects of their operations, including data storage, protection, processing, transmission, and retrieval as needed. Management Information Services (or MIS) or Information Services are the terms used to describe this (or IS).

In the corporate sector, information technology has grown significantly in importance. Regardless of the size of the company, IT has aided managers, employees, and workers in more effective problem-solving, the conception of a problem's complexity, and the creation of new goods and services. This has increased productivity and production. IT is being used by businesses to enhance how they plan and manage client relationships. CRM (Customer Relationship Management) systems record every interaction a business has with a customer, allowing for increased customer satisfaction. The customer service representative will be able to see what the consumer has bought, examine shipment details, bring up the training manual for that item, and efficiently address the issue if they get a call from a customer reporting a problem.

One of the key tools for boosting economic development is information technology (IT). It encourages businesses to make the most efficient use of their input resources. It is crucial to comprehend how these expenditures could pay off since they make up an ever-increasing portion of capital investment (Gilchrist et al., 2001). There has been considerable discussion over whether or not investing in IT increases productivity and business efficiency. Expenditures in IT may not have a significant direct impact on a company's success unless they are paired with complementary investments in business operations, human capital, and organisational reorganisation. As a result, BPR is useful for businesses to boost the influence of IT on overall performance of businesses, according to the function of IT in business process reengineering. On the other hand, combining BPR with IT investments may significantly raise productivity. In a highly competitive market, efficiency improvement is

essential for businesses to survive. The goal of any productivity-related effort is to boost performance over the long term. The greatest way to combat inflation, lower unemployment, increase profits, lower costs, build capital and wealth, and better working conditions is productivity. Drucker (2001) made evident the significance of productivity as an economic metric.

3. CONCLUSION

In this research, the business shift that underpins IT financing has been examined, with a focus on the distribution of decision-making authority and human resource assignments among geographically dispersed business units. The significance of place and the potential replacement of place-based benefits by information technology, as well as the distribution of decision-making authority across geographically dispersed business units, are two essential and interrelated managerial outcomes of information technology that have been prepared by this research. The research comes to the conclusion that the three technical shift factors IT infrastructure, IT knowledge management, and technological change have a considerable influence on organisational productivity. IT infrastructure among the three influences on technological progress has a beneficial effect on business productivity. Organizational productivity is strongly influenced by both of these criteria, but the latter has the greatest effect on all three. The organization's productivity was negatively impacted by IT knowledge management.

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CHAPTER 2

AN ANALYTICAL REVIEW ON INTRAPRENEURSHIP: THEORETICAL BACKGROUND AND FUTURE RESEARCH AGENDA

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ABSTRACT: *As a branch of entrepreneurship, the term intrapreneurship has become more important. The rising body of research showing the crucial function that entrepreneurial individuals represent in creativity as well as strategic benefit has given birth to a number of ideas. Notwithstanding the growing attention within this topic, there is presently not comprehensive categorization of the related concepts since study on intrapreneurship has historically depended upon a range of analytical positions. To differentiate the accomplishments to the discipline, numerous terminologies are actually employed. There is no thorough analysis that provides a broad perspective about the subject. Through distinguishing among corporation entrepreneurship, an entrepreneurial mentality, as well as intrapreneurship, present study makes it obvious that intrapreneurship is indeed an independent-level notion. Nevertheless, analysis concentrating on particular intrapreneurial persons is rare. Hence bulk of past study has indeed been undertaken at the administrative stage, stressing concepts like corporation entrepreneurship. This article addresses the void through performing a comprehensive literary assessment as well as using a narrow focus to offer the status of studies with regard to the independent-level perspective on intrapreneurship. Furthermore, this paper presents an analytical review on Intrapreneurship, its theoretical background and the future research agenda.*

KEYWORDS: *Business, Enterprise, Entrepreneurship, Intrapreneurship, Organization.*

1. INTRODUCTION

Professionals now play a different function in firms than those who formerly did. Workers nowadays have greater flexibility as well as accountability, and choice-making procedures have grown greater decentralized. This pattern coincides with the expectation that workers would be adaptable, engaged, as well as creative. Workers required to take on responsibilities like "innovators" as well as "differentiators" as opposed to becoming passively receivers of shifting occupations as well as goods. In order to create innovative concepts for products or processes, organizations must be capable of adapting but also change the (evolving) industrial landscape. Individuals must constantly search for possibilities as well as accept chances to bring about transformation. In order to cope with or possibly start such shifting needs that have a significant effect on a company's corporate orientation, workers are especially needed to embrace a much greater intrapreneurial manner of functioning [1]–[3].

There has recently been a tons of study concerning intrapreneurship, including its origins, circumstances, as well as outcomes, due to its fundamental relevance. Although there exists lesser consensus over its description, it really is widely accepted because intrapreneurship is indeed a broad concept which encompasses other sub-concepts, including such creativeness or entrepreneurial orientation. For instance, intrapreneurship has been described by Fischer (2011) as just a corporation regeneration procedure within existing businesses, whereas some academics characterize the term as bottom-up, proactively job-related behaviors of individuals workers with the capacity to transform concepts into commercial achievement. Furthermore, there is disagreement regarding the characteristics, drivers, as well as circumstances of intrapreneurship. These factors that encourage intrapreneurship might be the

foundation for creating policies, which including growth as well as incentives that might encourage intrapreneurial activity [4]. Figure 1 illustrates the characteristics of the intrapreneurship.

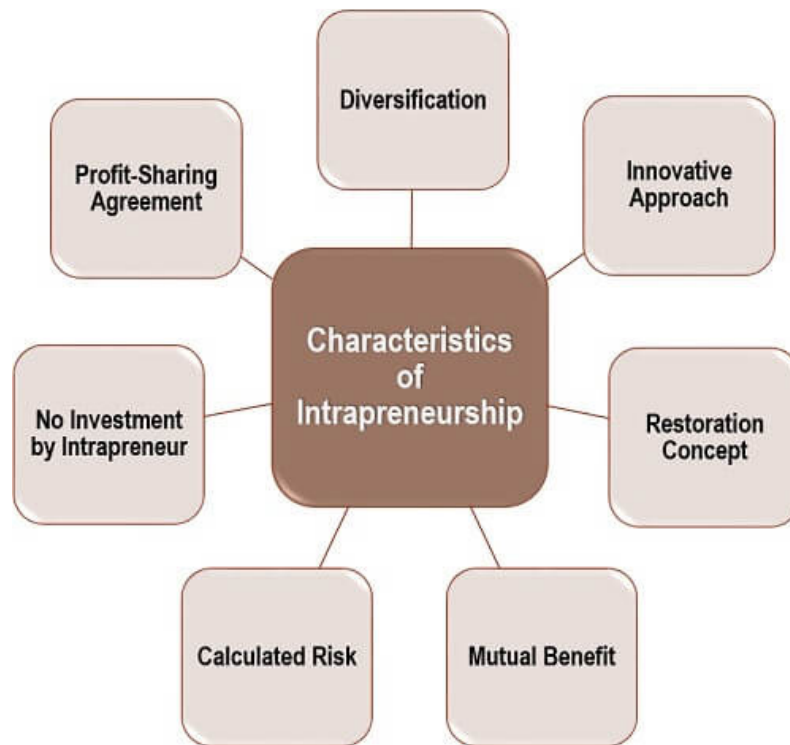


Figure 1: Illustrates the characteristics of the intrapreneurship [The Investors Book].

The research highlights many organizational issues as well as circumstances that promote intrapreneurship but result in management difficulties. There are a number of technology hurdles in contrast to the management ones. Intrapreneurs have potential to be involved in businesses owing to technical advancements, especially the digitized revolution, according to researchers as well as professionals alike. Interestingly, despite businesses' repeated insistence on the necessity to solicit as well as gather worker concepts, businesses frequently possess the practical IT-rooted instruments as well as procedures needed to effectively convert worker suggestions into new initiatives as well as solutions. Such technical difficulties vary between creating a standalone IT-rooted system to support the inner intrapreneurial activity to creating an advanced digitized intrapreneurship ecosystem which links outside assets [5]–[7].

Next but not least, study on intrapreneurship frequently focuses only on intrapreneurship as just an organisational trait. For example, several research have examined the relationship amongst EO (Entrepreneurial Orientation) as well as organisational success. This attitude of a company to really be creative, ambitious, as well as chance-taking is known as entrepreneur attitude. Such research, nevertheless, are more concerned with the "environments" of intrapreneurship than with the variations inside the traits as well as factors that underlie the bottom-up processes of putting innovative concepts as well as inventions into practise among particular employees. Intrapreneurship is indeed a bottom-up, multidimensional concept which may have an impact at several organisational stages (for instance, individual-level, a complete team as well as entire organization). Individuals' entrepreneurial behaviours lead to projects which might snowball as well as have a negative influence on the effectiveness of groups as well as organisations. There is indeed a requirement for an integrated paradigm that offers an overall view about intrapreneurship as well as when intrapreneurship often fostered

since the content is fragmented [8], [9]. Figure 2 illustrates the importance of intrapreneurship.

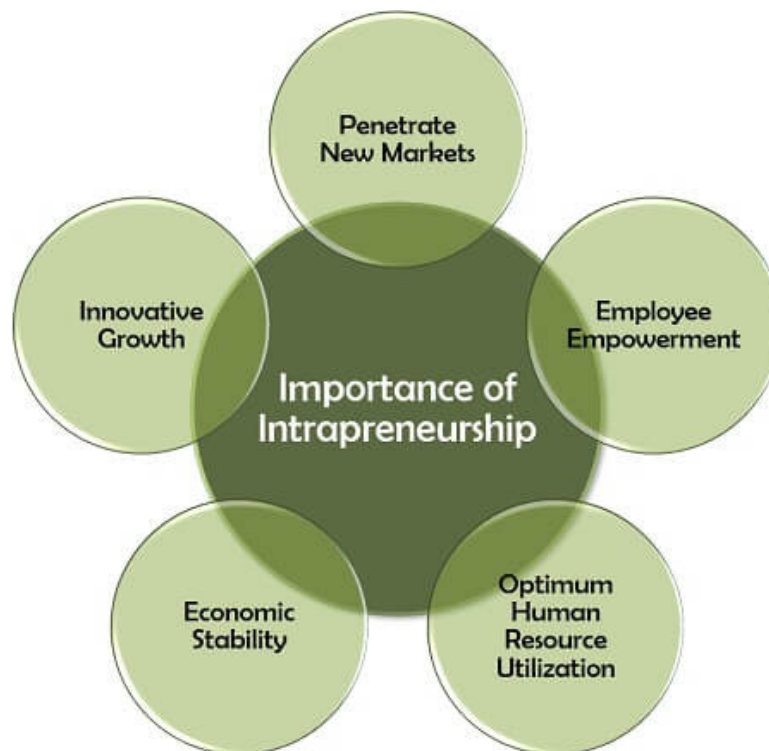


Figure 2: Illustrates the importance of intrapreneurship [The Investors Book].

Individuals or organisations may take entrepreneurship acts. Entrepreneurship start-ups take place at the people levels, whereas intrapreneurial mechanisms develop at the organisational levels. This same system depends on combined intrapreneurial as well as entrepreneurial advances. Nowadays the term Intrapreneurship, sometimes referred to as corporation entrepreneurship, is indeed a phenomenon wherein one or more workers launch innovative ventures or innovations inside the company. Authorizing workers to utilise company assets to develop inside the company as well as launch a fresh venture is known as intrapreneurship. These corporate tasks of intrapreneurship include the development of innovative ventures, the change of operations, including the improvement of strategies. Workers' internal entrepreneurial skills are impacted by how construction companies contrast from traditional organisations in their jobs [10], [11].

Because of the inherent danger in architectural work, individuals' willingness to take risks is oftentimes constrained. Intrapreneurship has been described from the angles of (a) innovative enterprise connected to an existing commodity or provider, (b) invention in innovative goods, assistance, technologies, or processes across studies as well as advancement, (c) proposals of organisational directors to inspire chance-taking, leading, as well as aggressively seeking innovative opportunities to improve competitor advantage, as well as (d) corporate strategy revolution throughout institution connected with cultural identity. By the identification of potential inside the corporation as well as the promotion of an innovative environment for entrepreneurship endeavours, intrapreneurial mindset supports the growth of the company. Comparing intrapreneurial efforts against entrepreneurial start-ups, the probability of accomplishment is somewhat greater [12].

Given its critical significance in creativity, organisational success, including worker succession development, intrapreneurship had also attracted study interest over the last

several years. Additionally, entrepreneurial investigation built on a variety of themes appears. Despite the growing interest in the sector, there are inconsistent inputs. Intrapreneurship studies in especially currently lacks a comprehensive foundation on how to identify facilitators as well as significant enabling factors to improve intrapreneurship [13], [14]. Figure 3 illustrates the process of intrapreneurship.

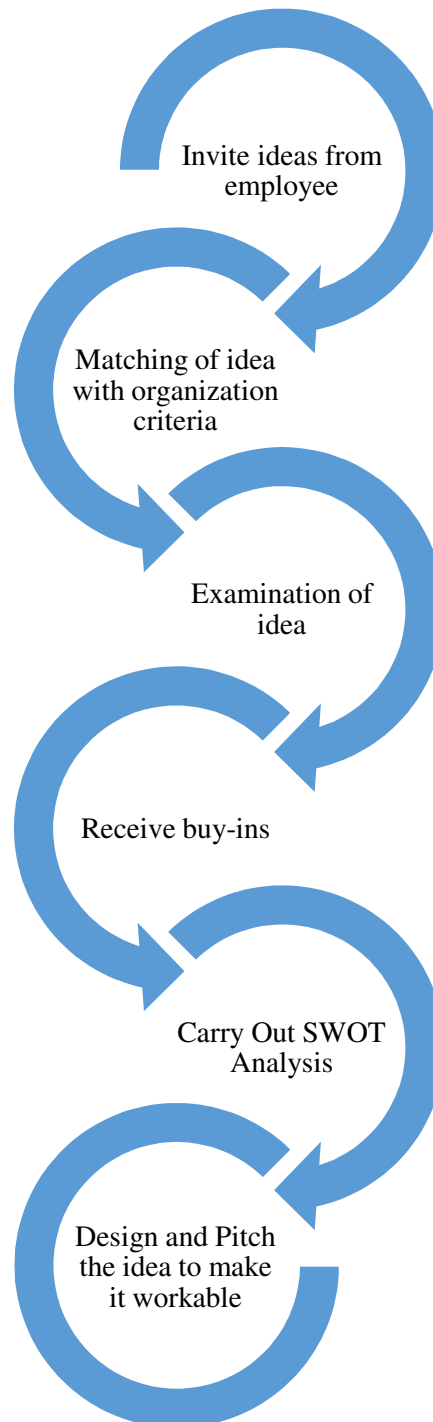


Figure 3: Illustrates the process of intrapreneurship [The Investor Book].

Intrapreneurship, or entrepreneurial activity which takes place inside a company or organisation, According to earlier studies, intrapreneurship enables organisations to develop, improve corporate efficiency, respond to external developments, as well as reenergize their

operations. According to studies, encouraging workers' intrapreneurial participation results in long-term organisational growth. Specifically, participation, worker empowerment, work independence, as well as an adequate compensation structure enable workers to generate creative concepts as well as explore creative possibilities that improve longer-term operational success for businesses. During the last ten years, a variety of focuses have increased scholarly attention in intrapreneurship field. Nevertheless, intrapreneurship isn't as prevalent in practice as one would anticipate. Intrapreneurship is indeed a phenomena that varies regionally as well. According to current study, the Northern nations dominate with just an intrapreneurship frequency of roughly 9.0%, whilst emerging nations including those in the Mediterranean as well as Eastern Europe experience the reverse. This increased academic attention within intrapreneurship is not being reflected proportionally in practise, which may be due to professionals' worries regarding how to establish an effective corporate procedure to encourage intrapreneurship inside the company [15].

2. DISCUSSION

Since entire corporate industry has indeed grown during the past few generations, as well as especially as a result of the latest challenging worldwide monetary scenario, that has heightened organisational competitive market, a fresh form of entrepreneurship started calling intrapreneurship and it has indeed emerged as just a methods of gaining a distinct competitor benefit. This term "intrapreneurship" describes the phenomena of entrepreneurship within businesses that currently operate which encompasses innovative inner as well as outside commercial ventures, transition via technology, as well as strategy regeneration. Because of this, businesses which want to stand out against their rivals often resort to intrapreneurship to get an advantage in respect of revenue, innovation, global performance, as well as intellectual achievements. According to the research, intrapreneurship applies to various shapes as well as kinds of enterprises, including sole proprietorships to massive worldwide conglomerates, and to both for benefits as well as nonprofit organisations. Because this intrapreneurial approach is dynamic, complicated, yet unpredictable, controlling intrapreneurial behaviour inside a company seems quite different from conventional administration. This diversity of intrapreneurial behaviour as well as actions is explained by the range of intrapreneurship, therefore it would seem as standard administration techniques really had no role within the operation of fostering as well as strengthening intrapreneurial conduct. As just a consequence, academia emphasises the necessity for much farther investigation into the factors which influence as well as interact upon intrapreneurial attitude. This same main goal of this analysis is to offer fresh perspectives as well as study ideas just on understudied areas of intrapreneurship concept as well as practises via practical study.

Numerous study sub-field have emerged primarily a result of the expanding attention within the subject of entrepreneurship study throughout time. Intrapreneurship is among the subfields that has attracted a great deal of attention. Allied to this, other studies came to the conclusion that so even though original given neoclassical Schumpeterian concept of entrepreneurship primarily concentrated just on actions of the founder, entrepreneurship really appears to be somewhat of an organisational action. Intrapreneurship is therefore seen simply the continuation of entrepreneurship inside pre-existing enterprises. Figure 4 illustrates the major advantages of Intrapreneurship.

Intrapreneurship as well as entrepreneurship are comparable in that both entail the introduction of innovative goods or activities. Another distinction would be that intrapreneurship takes place inside already-existing businesses when additional goods or solutions are added towards the corporation 's portfolio. Intrapreneurship is frequently a

deliberate procedure, with both the firm building up processes to facilitate the production as well as introduction of innovative concepts, in contrast to an individual developing a unique concept for a fresh item or solution.

Due to the lack of certainty of a recovery on the initial economic commitment, introducing innovative goods as well as activities is indeed a hazardous business. Organizations frequently discover because notwithstanding marketing analytics that could indicate a business or solution would be successful, customer approval of a fresh solution will not really play out. Customers may adore an item, yet complain that it is excessively costly, difficult to discover or purchase, does have a poor guarantee, or has whatever additional apparent flaw. Opponents could reduce their pricing, ramp up their promotion, or use various commercial strategies to counter the fresh release. Although if buyers embrace an item and have no concerns about way it is presented, a launching may collapse if the company isn't operated effectively or can't come up with a compelling advertising messaging strategy.

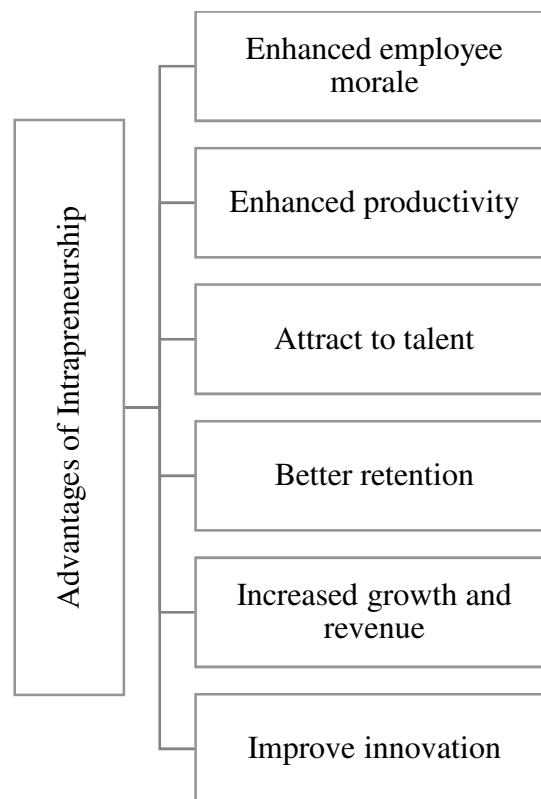


Figure 4: Illustrates the major advantages of Intrapreneurship [Source: Google].

Because there is often little to no rivalry for new goods and services, both business models both have a high return potential. Even though they face some competition, they often provide a unique selling proposition, and their novelty attracts buyers' attention and boosts early sales. Entrepreneurship allows those who manage their own businesses independence from a supervisor, the chance to establish their own hours, the flexibility to pick where they work, and the chance to collaborate with anyone they choose in addition to financial incentives.

The behaviours and interactions of the human, organisational, as well as other environmental aspects are all a part of intrapreneurship inside companies. Managers and staff at different stages (i.e., upper, medium, as well as operating grade) perform different responsibilities inside the intrapreneurial cycle. Executives at the upper but also intermediate levels often concentrate on identifying opportunities. They must also oversee the intrapreneurial process

and provide a strategic vision for intrapreneurship. Nevertheless, since they are a primary source of new ideas, operational-level managers and staff are often in charge of execution. As a result, they often play a dual role in identifying and seizing internal entrepreneurial possibilities as well as driving change as well as creativity inside the company. Ideation is supported by employees' intrapreneurial inventiveness as well as subject expertise, but chance identification is related to particular interactions at the dyad, team, as well as organisational levels. For example, organisational architecture, how businesses set up their intrapreneurial procedures, including relationships inside the company all have an impact on how much people may use their imagination to recognise opportunities. The aforementioned study fields need more focus since they are relatively understudied as of right now. Figure 5 illustrates the major challenges in intrapreneurship.

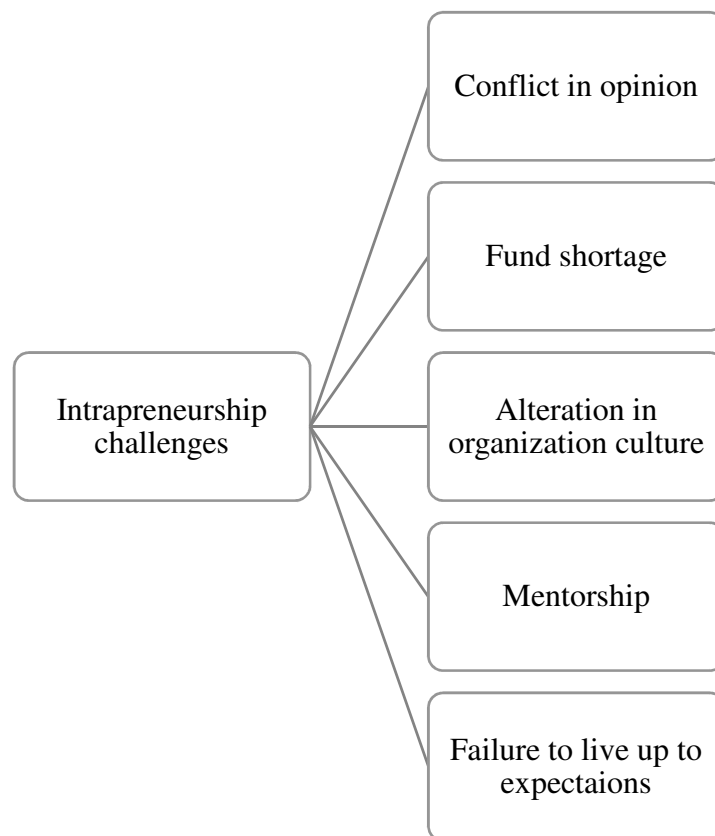


Figure 5: Illustrates the major challenges in intrapreneurship [Source: Iterators].

3. CONCLUSION

Regardless of overall scale of the firm, the aforementioned research underscored fundamental significance of intrapreneurship. Inside the procedure of defining this same intrapreneurship notion, people have observed how an increasing number of businesses are focusing upon their intrapreneurial development inside an effort to reap the rewards of profitability, innovation strategies, advancement, expertise acquirement for potential earnings, as well as global acknowledgement. Considerable investigation supported the idea that entrepreneurial orientation is not only an occurrence of huge companies, but also would seem with substantial frequency in organisations of only those widths, and also that relatively small organisations acting in emerging economies possess distinct traits from those predicated throughout the world. The intrapreneurship concept as well as practises developed from studies on big businesses functioning in entrepreneurial nations, in particular, must be

carefully studied. Both features as well as dynamism of intrapreneurial stance appear to change as according scale as well as region.

Overall bulk of the scholarly as well as corporate worlds assume that intrapreneurship is indeed a phenomena that only occurs in big enterprises, notwithstanding the fact that intrapreneurship remains important in organisations of all kinds. Such strategy leaves a significant void in the scholarly literature about Firms as well as the function of intrapreneurship towards both their effectiveness as well as survivability. The current research makes a contribution to the commercial as well as scholarly worlds by examining the available material while offering a thorough examination of something like the intrapreneurship idea. The course's knowledge and a deeper in examination of the quantitative data show the literature's lack of coverage of intrapreneurship techniques as well as the want for additional comparisons on the function of intrapreneurship throughout all sizes as well as types of businesses. As a result, researchers think that subsequent study will consider the problems raised in this study as well as be increasingly focused on bridging the voids in the existing literature.

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CHAPTER 3

EXPLORING THE ROLE OF MANAGEMENT AUDITING IN BUSINESS OPERATIONS

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ABSTRACT:*The assessment of the management group's use of resources and strategies is commonly called a management audit. A management audit determines whether the executive team is acting in the best interests of the individual's performance, shareholders, and employees. The problem is caused by audit failures such as poor top-down prioritization, insufficient documentation when there is excessive manual labor, inadequate or absent risk assessment, excessive self-congratulation in internal assessment, and unawareness that some audits are continuous. The author focuses on the purpose of management audits to assess the effectiveness of a management group to act in the best interest of investors, maintain excellent relationships with employees, and assess individual executive performance, rather than maintain established standards. This paper also discusses the importance of management audit and their characteristics. It concluded that management audits are now frequently used, particularly in large commercial organizations, to assess management's goals, their degree of achievement, and adherence to corporate rules and procedures. The scope of a management audit can be better understood if it can link each management process or element to a potential audit examination. It will be initially designed as a tool for evaluating investments.*

KEYWORDS:*Business, Company, Management Audit, Internal Audit, Organization, Policies.*

1. INTRODUCTION

The systematic, objective examination, analysis, and evaluation of top management performance overall may be referred to as a management audit [1],[2]. It considers includes non-financial and financial aspects, such as the economic climate and its impact on the management and objectives of the company organization [3],[4]. It involves a process or a type of appraisal of the management's overall performance through an objective and thorough examination of the organization's structure, its constituent parts, like departments, its programs and strategies, methods of system or process, and controls, as well as its use of physical infrastructure and human resource management [5],[6]. An objective, methodical investigation and assessment of a company's entire operations and performance are known as a management audit [7],[8]. It is a useful tool for evaluating the effectiveness, roles, successes, and accomplishments of the business. The main goal of a management audit is to spot mistakes in management processes and recommend potential improvements [9],[10]. It directs management to oversee activities most efficiently and effectively as possible. In other terms, a management audit involves assessing and evaluating the management system and data across all departments or throughout the whole business [11],[12]. Its scope has been expanded to include system and subsystem assessments, authorization reviews, process reviews, responsibility reviews, personnel performance reports, etc.

The fundamental definition of management audit seems to be the periodic evaluation of a company's comprehensive report, organizing, acting, and regulating against what can be considered the standard of effective operation [13],[14]. It examines the past, present, and future of the business. To ascertain whether the firm is getting the most out of its efforts, the places the company serves are analyzed [15]. Such an audit may be conducted by

management alone or with the assistance of management consultants. Similar to this, while a thorough management audit may well be advised, businesses may also use it individually on select particular portions or sectors of the organization. For instance, a management audit may examine production effectiveness or investment evaluation. Even critical evaluation of capital budgeting or earnings growth, predicting, and planning operations on a long-term and short-term bases may be guided by management audit. Thus, management audit focuses on assessing and evaluating the information communication and control mechanism in various organizational segments.

1.1. Objectives of Management Audit:

A management audit examines all aspects of the management, including the effectiveness with which the management's strategies have been carried out see Figure 1. As a result, the scope is far wider than a financial audit since it considers every facet of management. There are a few goals for management audit. The varied goals of audit management include

- Checking for Efficiency:** The goal of a management audit is to evaluate the effectiveness of management and the application of policies throughout all levels. Provides a Suggestion to
- Improve Efficiency:** Management audit identifies inefficiencies in many management areas and offers insightful recommendations and ways to increase efficiency.
- Evaluate the Effectiveness of Planning and Policies:** Management audit looks at plans and policies, assesses them, and determines if they are being executed correctly. Helps to
- Increase Profitability:** By providing solutions to effectively utilize the organization's resources, management audit aids management in increasing profitability. Aids in
- Co-ordinating Activities:** Management audits identify the connections between activities, assess authority and responsibility, and provide insightful recommendations for strengthening coordination between activities and workers (Figure 1). Offers
- Helpful Advice:** The management auditors provide vital guidance to the top management on various policies as well as the future action plan by examining the management effectiveness and identifying the weak points of various levels of management.

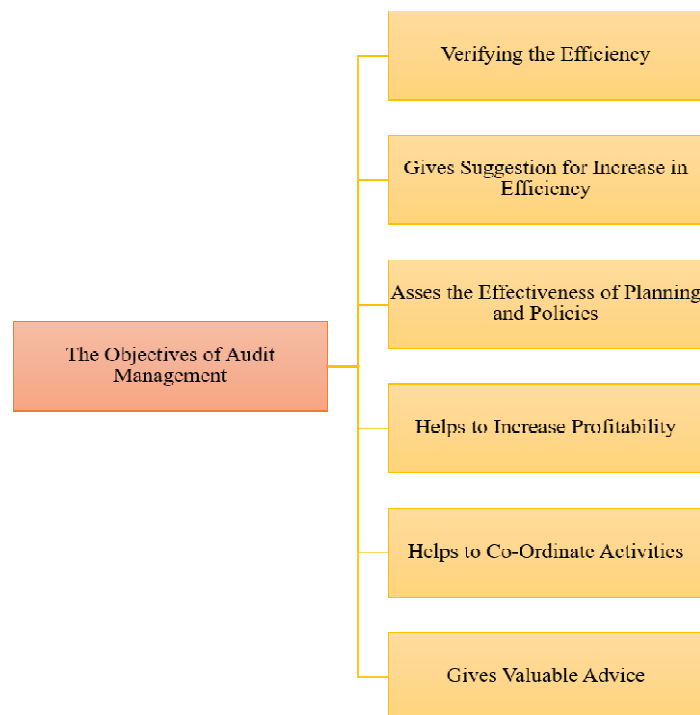


Figure 1: Illustrates the Objectives of Audit Management which Provides Implementation and its Efficiency to Execute the Policy.

The present paper is a study of audit management and its different characteristics. This study is divided into several sections, the first of which is an introduction, followed by a review of the literature and suggestions based on previous research. The next section is the discussion and the last section is the conclusion of this paper which is declared and gives the result as well as the future scope.

2. LITERATURE REVIEW

According to C. H. Sonu and B. Kim financial regulation has been on the function of audit committees (ACs) in limiting managers' opportunist conduct. The author looks at whether the reduction in business profits management is caused by the growth in financial literacy of AC members brought about by business training. Utilizing a brand-new, manually compiled dataset of Korean-listed firms for the years 2018 through 2020. It was found that company training improves AC performance by improving their capacity to recognize profits management. Moreover, our findings show that AC members who lack financial literacy are more likely to benefit from business training. Finally, contribute to the development of a practical method through which the efficiency of AC raises a firm's profits quality.

Liudmila V. Kashirskaya [16] et al. have explained how the company aims to enhance and develop its skills by putting a stronger emphasis on a cutting-edge and forward-thinking management technique, known as knowledge management. In the context of the development of information civilization, the author organizes and explores the potential of a knowledge audit. It is assessed how well a methodology, organizational structure, and information audit tools match today's requirements for business audit development. A study of the need for this type of audit in the worldwide community revealed that the absence of a widely accepted methodology inhibits the choice to carry out a knowledge audit. As a consequence, it is determined that merging different audit categories into a single audit of a corporation demonstrates a substantial commercial effect.

Václav Kupec [17] has explained how organizations are taking advantage of new business possibilities and posing new business hazards as a result of the continuing expansion of the business environment and Industry 4.0. Consequently, the purpose of that piece is to confirm the analytical capabilities of the audit to identify and mitigate the chosen risks. By examining the hazards of brand communication and conducting audit testing on a sample of Generation Z, for whom internet technology is a natural part of daily life, the methodical processing of this aim is addressed. The findings of the audit identify particular hazards in marketing communications and offer suggestions for effective mitigation. Finally, the suggestions made in response to the risks associated with marketing communication in the digital environment suggest a suitable decrease.

Nathanaël Betti and Gerrit Sarens [18] have explained how digitalization affects the internal audit function and how internal audit methods are affected. An in-depth study of the internal audit stored procedure evolution in a corporate environment that is becoming more and more digital is the main goal of this research. This report is based upon 29 semi-structured conversations with Belgian internal auditors including representatives of the management board. The results show that there is a greater need for the advisory services provided by internal auditors, and third, digitization has changed the way internal auditors execute their daily jobs. In conclusion, data analytics capabilities must be integrated into the internal audit role. Additionally, the internal audit function has to create advisory initiatives to assist businesses in coping with the digitization of the marketplace.

Anup Chowdhury and Nikhil Chandra Shil [19] have Investigated the integration of private-sector financial management technology into a chosen public-sector organization, with a

focus on risk management systems, fraud and corruption control systems, and internal audit. The author has explained how the concept came from the New Public Management ideology, which was founded on the idea of employing technologies from the private sector. Direct observation was another approach that researchers utilized to support the information from interviews and old records. It was found that business units examine their risk exposures as a part of their planning process and that strategic crisis management is a component of the agency's product lifecycle of business planning. In conclusion, it could be helpful for decision-makers who are developing new public sector policies.

The above study shows how the company aims to enhance and develop its skills by putting a stronger emphasis on a cutting-edge and forward-thinking management technique, known as knowledge management. And also, how organizations are taking advantage of new business possibilities and posing new business hazards as a result of the continuing expansion of the business environment and Industry. In this study, the author discussed the importance of audit management in business and its characteristics.

3. DISCUSSION

The management audit committee of a corporation is not a formal committee of the board of directors. Rather then, board members serve on the compensation committee and evaluate each executive's performance based on both quantitative data, such as the creation of new business, earnings before interest and taxes (EBIT) margins, segment profitability, operating free cash flow, as well as EPS, as well as qualitative or intangible factors, such as efforts to integrate acquisitions. The management audit will be carried out by a consultant that is hired by the board of trustees. Although the audit's scope may be limited, it is often wide-ranging and covers many important parts of a management team's duties. A management audit might take several weeks or months, depending on the size of the operation. The audit's findings would approximate a report card, with good scores for the management team's accomplishments and lower marks for areas that need work. Similar to how the management team manages the firm, the board should consider these comments into account and compel changes where they were essential.

3.1. Importance of Audit Management:

Undertaking a management audit of a business has several benefits. There is a need for management audits to evaluate the effectiveness and productivity of the management at all levels within an organization as its volumes and activities increase in Figure 2.

- **Evaluates Efficiency of the Management:** To determine the responsibilities, effectiveness, and accomplishment of the management (i.e., policies), in comparison to standards established by the organization, a management audit is a way of an autonomous and "systematic review of the management operations at all levels of management.
- **Scrutiny of the Plans, Policies, and Procedures:** An organization's aim may be attained by looking over how management has executed its plans, regulations, and procedures.
- **Helps for Correction of Plans, Policies, and Procedures:** Plans, strategies, and procedures can be changed or revised through management audits to meet the demands of the business.
- **Aids for Decision Making:** Management audit evaluates managers' capacity for making crucial decisions and assists them in fixing any flaws.

- **Helps to Get Loan:** Financial institutions that provide large loans to businesses are curious about how well they are managed and how profitable they are. Certainly, management audit serves as guidance for them.
- **Helps to Get Subsidy:** The government is concerned about the effectiveness and operation of the management before providing any organization with a subsidy. Management audit is beneficial in this regard.
- **Helps to Increase Profitability:** Management audit provides solutions to efficiently optimize the organization's assets, which aids management in increasing profitability.

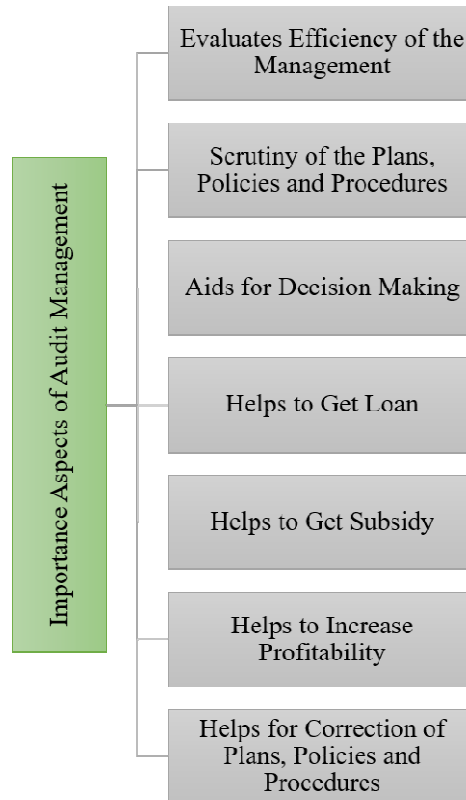


Figure 2: Illustrates the Importance of Audit Management in Different Sectors.

3.2. Characteristics of Management Audit:

Individual performance is not subject to management audit, and managers are not subject to the scrutiny of their performance. A management audit evaluates a system by looking at how it performed in the past, how it operates now, and how it can operate in the future differently. Large policy choices, significant structural changes, and improvement initiatives can all benefit greatly from the knowledge a management audit system can provide. Additionally, management audit enhances internal communication and awareness generally. It aids the leadership in exercising its guiding role and enhancing the system for control and assessment. In other words, "Management Audit" maintains the entire management system under constant evaluation and provides a strong assurance that little should just go wrong and nothing will ever go wrong that can't be fixed and restored immediately away. The goals of an organization, its policies, and procedures about those goals, and its adequate accomplishment of those goals, rules, and procedures.

3.3. Application of Management Audit in Business Organization:

The principles of management audit were initially created as a tool for valuing investments. But in the recent fifteen years, its use has grown to encompass practically all shapes and sizes

of commercial companies, as well as non-profit organizations like the worldwide activities of the Roman Catholic Church and specific institutions and schools. The Management Audit, when applied to a business enterprise, compares the relevant management's traits to the characteristics of other management teams in its industry and the best management teams in other sectors. The various categories of the Management Audit of business organizations are.

3.3.1. Economic Function:

The class of The American Institute of Management made a unique addition by including an economic function throughout the management audit, giving management ongoing accountability for the company's significance to our economy. In force. The company's public worth is determined by its economic function. This quality is founded on the actions the business has taken, the goods and services it offers, and the ethical and religious standards it upholds. It includes intangibles like the company's reputation, the management's perspective, and an expansion of the company's current mission. The term public as used in Economic Function refers to a variety of groups, all with different interests that the successful business must work to fulfill. These groups include its customers, vendors, wholesalers, and the community groups in which it works. Economic function accomplishment is cumulative in the sense that time by itself may judge a company's public worth. A new company may immediately become a significant part of our society, but it cannot perform at its highest level until it has successfully navigated market cycles, faced competition over time, built and changed management teams, and acquired a reputation amongst its many publics. The public worth of emerging corporations must be gauged by such exemplary firms as Procter & Gamble as well as Minnesota Mining and Manufacturing Corporation.

3.3.2. Corporate Structure:

The Management Audit's Corporate Architecture category evaluates the efficiency of the framework that management uses to achieve its objectives. Any company's organizational structure must facilitate the formulation and execution of corporate decisions, allow management of the business, and define the spheres of authority and accountability for its leaders. These standards must be satisfied regardless of the precise organizational structure a business chooses; the American Institute of Management does not bind its evaluations to any specific organizational structure. In actuality, the nominal structure depicted on the firm's organization charts is rarely the true type of management of the organization under examination. The real relationships between relative authorities inside a corporation are frequently shown in the published organizational chart in such an erroneous manner that they provide little value to the behavior that can be explained.

3.3.3. Condition of Earnings:

Instead of focusing only on the revenue itself, the examination of profits takes into account the historical and quantitative characteristics of corporate income production. If the assets of the firm have fully achieved their profit potential, it must be determined by the Health of Revenue. Assets also include debt that is included in the capitalization of net invested capital as well as the assets symbolized by company-owned gross equity. Fixed assets, such as land, buildings, and machinery, or more liquid assets, such as actual cash or, to a lesser extent, inventories, reflect these capital components in the process of production. Whatever shape they take, the most important question would be whether resources have been utilized to the fullest extent possible to realize their potential.

3.3.4. *Service to Stockholders:*

A company's performance in serving its stockholders is primarily judged by how well it adheres to a three-part requirement that stockholders give to the directors of corporations of corporate entities: first, that their principal not be lost or introduced to unnecessary damage; second, that perhaps the principal is improved in the amount of conceivable through the wise use of retained earnings; and third, that those who start receiving a reasonable profit on the principal inside the form of dividends whilst also their ownership stake is designed to protect through. An industry's fairness to stockholders is based on how well it complies with these three criteria.

The assessment also addresses the duty that every business now has to serve its shareholders, keeping them adequately informed so that they may assess the performance of their investment in the business and take part in decisions that could have an impact on that investment. Even a shareholder with little financial expertise can assess his interactions with the business to see if the fundamentals of stockholder management are being provided. Furthermore, while good stockholder relations become less important than prudent dividend practices, they do point to management that is aware of its obligations, which is a prerequisite for great management in any organization.

3.3.5. *Research and Development:*

Evaluation of corporate research programs is essential to a Management Audit since sufficient research efforts over many years may ensure firm advancement and enhancement of its industry leadership. Almost all of our large organizations are aware of the value of research as an ongoing endeavor, regardless of how successfully they do it. But far too many smaller businesses still view it with trepidation and frequently don't conduct any kind of research at all. Greater daring may be of immeasurable service to them if it was founded on an understanding of what research is, what it can accomplish, and how to budget for and evaluate it realistically. Evaluation of research outcomes can demonstrate the effectiveness of the use of research funds, but it cannot demonstrate if management has made the most of its research potential. The amount of money spent on research, the number of researchers engaged, the ratio of research expenditures to staff overall spending and people, and the number of new ideas, technology, and goods produced must all be compared throughout time. When these costs are compared to the findings of previous studies, management's desire to use research for future development and health may be estimated.

3.3.6. *Fiscal Policies:*

While a company's financial history, which represents all management action as it is portrayed in quantifiable financial terms, is evaluated under the area of Monetary Health, the company's performance and financial policies are decision-making related to Financial Policies. The financial structure of the corporation, the entities responsible for creating fiscal guidelines and controls, and the implementation of these controls and policies across various corporate activities are included in this area of research. The main issues are managing, controlling, and raising money.

3.3.7. *Production Efficiency:*

Evaluating production effectiveness is crucial when evaluating a manufacturing organization. What is less well known is that non-manufacturing businesses, whether they're in financial services, insurance, transportation, communication systems, electric and other power, or any other industry where the final product does not constitute a tangible good, need operating

efficiency, which is equivalent to process performance. Almost all businesses that aren't essentially middlemen for other businesses must first acquire and prepare the product or service for marketing. This is the area where a business' total operations are assessed under the heading of productivity improvement.

3.3.8. Sales Vigor:

Sales methods can vary sufficiently within single businesses and even among single businesses to reflect several marketing tenets. The differences are frequently much bigger across various industries. However, the comparative evaluation of sales vigor must take into account all the different forms that marketing can take. For instance, it must allow the management analyst to make comparisons between the successfulness of North American Aviation's revenues, which are primarily focused on the United States government, with the success of Procter & Gamble's consumer services program, which has a single customer as well as a successful and profitable advertising budget. Despite these differences, it is still possible to evaluate sales vigor, but only after each company's marketing objectives have been identified and evaluated. These objectives must then be evaluated in light of the general objectives of the entire company. Therefore, similar to other Management Audit subcategories, historical and comparative evaluations are made feasible. It is then possible to assess how effectively the company's current sales policies are preparing it to fulfill its future potential and how efficiently the company's past sales possibility has been achieved. This type of approach is typically seen with sales staff.

3.3.9. Executive Evaluation:

The Executive Evaluation represents the most significant one of the ten Management Audit rating categories. Since they assess the outcomes of executive thought and action within every management function, the other subcategories in this method of management assessment do, to a certain extent, also evaluate the institution's executives. However, it is still necessary to evaluate the executives' personal qualities, management philosophies, and suitability for the organization's objectives. The American Management Association has identified ability, enterprise, and integrity as the three human characteristics that make up a successful company leader. These offer a foundation for the Management Audit's assessment of him, and the managers of the company should use them when choosing and promoting executives. Executives must collaborate well, each with a distinct duty that contributes to the overall effort, and be aware that they are working with men who have their respect. This is a requirement for excellent management. The administrators as a group must prioritize the company's long-term viability and ensure it through sensible executive hiring, advancement, and replacement practices. Ensuring good succession in depth is a major issue.

4. CONCLUSION

Through common understanding between both the audit team and senior management, the suggestions of the results may be put into practice for the leadership's success. The fact that the audit partner plays a slightly different function in the audit's conduct than the audit supervisor and audit team may account for the conclusion that this characteristic was the least significant of the audit-team characteristics for both groups. Whereas the audit partner is ultimately in charge of the audit engagement, the professional audit manager is responsible for coordinating and supervising the audit project's execution, as well as the audit team is in charge of carrying out the audit processes. The findings for the three attributes related to the audit partner's, senior manager or management's, and audit team's understanding suggest that both insiders and external stakeholders are aware that, while the audit partner is responsible for the audit, it is also the other representatives of the audit team and their connection to

independent audit procedures that are important. It was implied that a management audit is a study of management conducted by the administration for management. The administration itself chooses the management accountants. These auditors might or might not be able to complete the task given to them. The organization, its personnel, and its workers are typically familiar to management auditors. In these audits, personal factors cannot be ignored. Some people may utilize this audit to even the playing field with someone else, while others might use it to their advantage. They are more inclined to assume that the facts are true and not do a thorough investigation to learn more about the situation. The conclusions and recommendations mostly in audit reports should improve the organization's performance.

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CHAPTER 4

IMPLEMENTATION OF THE AGILE PROJECT MANAGEMENT IN HEALTHCARE SECTOR

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ABSTRACT: *The problem facing current health care incumbents includes the rapid speed of technology progress, rising prices, and the influx of new competitors. Delivering helpful applications rapidly and meeting patient needs are also top priorities for agile healthcare. Healthcare executives may use the management tenets of agile, which were initially created for the software industry, as a framework for tackling a variety of management difficulties. The emphasis of this study is on the use of agile project management in the healthcare industry. Agile techniques may provide the healthcare sector a number of benefits. Some of these advantages include lower financial outlays, better treatment, and improved inventions. Agile may aid in enhancing transparency in the healthcare sector, especially in non-clinical and clinical settings. A broad range of sectors, including banking, construction, marketing & advertising, and healthcare, benefit from agile today.*

KEYWORDS: *Agile, Agile Methodology, Agile Project Management, Healthcare, Medical.*

1. INTRODUCTION

Agile project management is a team-based method. It requires designing a sprint, which is a fixed-time phase. Teams create a list of deliverables at the beginning of each sprint, prioritising them according to feedback from customers. Both the team and the clients assess the work at the conclusion of each sprint and make adjustments for subsequent sprints. Another agile technique is the daily standup. During these check-ins, team members are gathered to discuss sprint targets' progress and to identify any roadblocks or obstacles. Agile healthcare places a strong emphasis on patient happiness and the speedy deployment of useful apps. Healthcare professionals should begin by becoming familiar with the history, tenets, and benefits of agile methodology [1], [2].

Agile project management is an iterative method of managing projects with a focus on increasing productivity via the delivery of work in brief periods of time known as sprints. By introducing transparency into their project management processes, teams use this technology to position their products for maximum performance and effectiveness [3]–[6].

In addition to strengthening the dynamic medical environment and optimising processes to help accomplish project objectives, the agile approach enhances patient care. Furthermore, healthcare professionals should simplify their work by breaking up large projects into sprints. The healthcare sector is changing due to a number of causes, such as technology and automation, globalisation, ageing populations, and more regulation (Figure 1).

Application of the ideals created largely for the technical sector as Agile software development is known as agile management. Today, other management strategies in other sectors are increasingly using the idea. Agile systems started to disperse into various areas of activity in 2001, after the emergence of the Agile Software Development sector. Agile approach may be a helpful model for small medical practises since its ideals are founded on the combination of expertise throughout the delivery process.

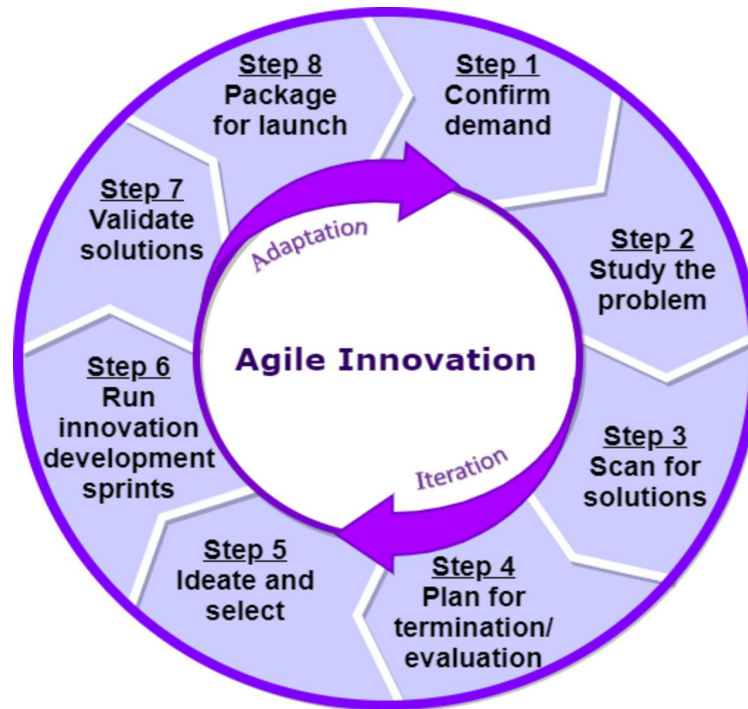


Figure 1: Illustrating the Transformation of Agile Invention that Useful in Healthcare [innovations].

1.1. The Philosophy of Agile Methodology:

The complex systems with non-deterministic, dynamic, as well as non-linear characteristics are the main goals of the agile approach. Precise estimates, clear plans, and projections are sometimes difficult to get at the beginning phases of circumstances like medical practise and healthcare delivery, and trust in them is likely to be quite low [7], [8]. Agile users will thus ask for a reduction in the amount of believing that is required before any demonstration of value can be realised.

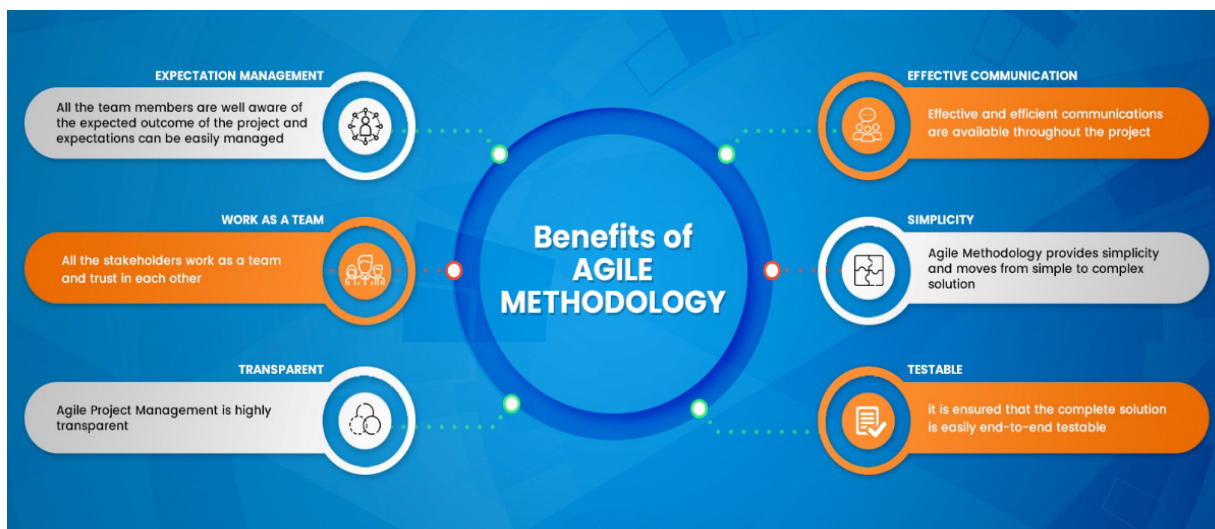


Figure 2: Illustrating the Various Benefits of Agile Methodology [serole].

Requirements and design are considered to be in their infancy, but it is acknowledged that any major upfront requirements can result in a great deal of waste, such as being fiscally unsound. These fundamental justifications as well as earlier business methods developed over

years of successes and setbacks have contributed to Agile development's support for adaptable, iterative, and evolutionary progress. The main goal of every medical practise is to satisfy doctors and patients by consistently providing excellent services in a timely manner. Therefore, it is crucial for project management to acknowledge changing needs, even later in the process, as shown in Figure 2. The delivery of services must be frequent and firmly integrated with employee collaboration on a daily basis. Agile provides such a management framework.

Agile-based projects support dependable personnel and promote face-to-face contact as the greatest method of communication. In the Agile system, patient and physician satisfaction is the main indicator of growth. It provides unstoppable development, can maintain a steady pace, and continuously promotes excellence and an ethical practise model. The art of simplicity is maximising the amount of effort that is avoided. The best designs, ratios, and architectures come from self-organizing teams. In the latter, the team frequently considers how to become more productive and makes adjustments as necessary.

1.2. Principles of Agile:

Project management methodology known as agile. So, in a number of contexts, healthcare practitioners may use agile ideas. Healthcare teams may do anything they like, according to agile. Instead, it offers guiding concepts that assist teams in determining how to organise their workload, communicate, and overcome obstacles. Depending on the structure and philosophies of the business, the agile principles provide a framework that might be modified and put into practise. Beyond internal initiatives, redesigning the patient experience as a whole might be done using Agile concepts [9]–[12].

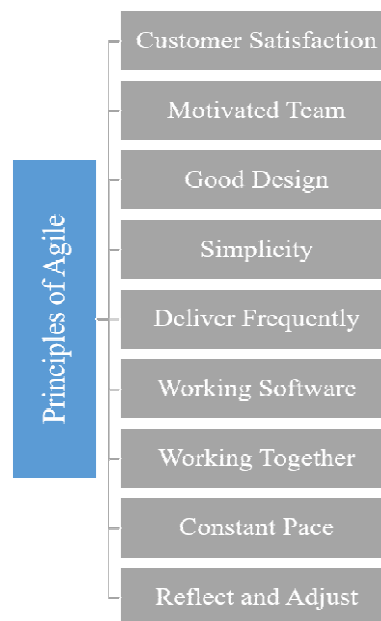


Figure 3: Illustrating the Few Important Principles of the Agile.

We acknowledge that the reform of the healthcare system must come first in order to properly appreciate the advantages of innovation and technology. This integration might be accomplished by using Agile methodology to connect the processes of technology innovation with care redesign. If health care companies adopt the Agile methodology, new Agile health practises will be made possible, care will be more adaptable and responsive to new information, care procedures will be improved to give more value, and new technology will be used more effectively to enhance patient care (Figure 3)

1.3. Adopting Agile Principles in Health Care:

Independent physician practises in particular are facing difficulties as a result of the rapid advancement of technology, growing expenses, and entry of new players into the healthcare sector. Therefore, it is imperative that medical practises and healthcare organisations discover doable approaches to embrace reform, which we define as the adoption of new patient as well as clinician value. The majority of contemporary advancements in healthcare, including governance, strategic business planning, and information technology adoption, are made to reduce risk to medical practises. However, they often lack the flexibility to shift fast, producing little improvements that fall short of the transformation that is desperately required.

One of the core principles of the agile method in healthcare is the creation of an agile team composed of doctors, engineers, managers, data scientists, and user representatives. To improve results, boost value to patients, healthcare providers, and the system overall, each group designs a project cycle. Several hundred personnel from the member health care systems have taken part in Agile projects, despite the fact that only a small number of individuals make up the core team. Medical practises may quickly integrate changes and iterate by using Agile ideas in the integration process. This makes it feasible to use online systems for clinical deliverables in areas including diabetes control, patient involvement, campus navigation, practise compliance, and remote monitoring.

Healthcare organisations and medical practises are inherently complex adaptive systems with a wide range of clinical and non-clinical disciplines collaborating to meet patient needs through technology, all while operating within a constantly shifting administrative and reimbursement framework and with access to medical information moving at a breakneck pace. Agile and related ideas are often culturally appropriated in order to speed up the implementation of change and win acceptance for non-traditional healthcare techniques. To that aim, medical practises must concentrate on establishing an innovative culture throughout their enterprises.

Without a doubt, the majority of contemporary project management solutions are in their infancy and may need some time to develop. However, if carefully chosen, it will develop further, meeting the demands of any medical practice [13], [14]. They will become more introspective, more approachable, and thus more efficient. Because agile is a grassroots movement and is adaptable, it is a more dependable approach for small medical offices. Additionally, it may be hybridised for maximum versatility. Today, the majority of physician practises are unfamiliar with any kind of project management, with the exception of big and the majority of medium-sized healthcare businesses. But using some kind of project management methodology is increasingly essential due to the growing number of rules and requirements, as well as the emergence of value-based reimbursements. The influence of individualism for the sake of the majority and the rebellious minority.

2. DISCUSSION

As a beginning point, organisations may include Agile technique in their innovation portfolio. Innovation teams or centres often work on risky but strategically significant initiatives. According to our experience, creating a collaborative environment for Agile teams to emerge is dependent on top leaders' transformative buy-in. If these teams are to be successful, separate departments within a corporation, such as business planning and information technology, must provide their employees the freedom and flexibility to join these teams. By include patients on these teams, it is assured that the focus will remain on the people receiving care. In reality, agile may begin in health system innovation centres. Traditional

waterfall planning is unrealistic for many ventures like this since it often takes just a few fast modifications before a workable and scalable idea is realised. When teams employ Agile, they work closely with users to design and provide feedback, IT team members continue with initiatives beyond the first go-live rather than abandoning them, and budgets and strategic plans are kept as flexible as possible to account for the inherent volatility in the process. Using the Agile approach, all of these efforts were integrated into the framework of the healthcare system (Figure 4).



Figure 4: How the use of agile concepts may help create complicated, large-scale solutions for the healthcare industry.

The team-based effort being driven by Inception Health is fundamentally based on the Agile Manifesto ideals. The teams use organisational frameworks like scrum to organise their work but do not adhere to prescribed methods or tools. Prioritizing prototypes—also known as minimum viable products—enables early launch and experience; often, they are first deployed in a limited space to facilitate modifications and collect data. As part of the natural process of cooperating, documentation is produced in the form of processes, training materials, or code development, supporting sustainability but with the initial focus on communication. The teams strive to be a partner rather than just a client with many of the external partners. Inception Health provides a testing ground for businesses to jointly create solutions thanks to its agile construction and inbuilt legal assistance. In this sense, teamwork is valued more highly than obtaining the best possible contract terms. In addition, teams set critical KPIs and performance indicators, operate in iterative cycles, and concentrate on their vision and objectives, both short- and long-term. When statistics and user feedback indicate that tools or services are not being utilised as originally intended or when user requirements change, teams pivot.

2.1. “Agile Methodology” In Health Care:

Companies in the healthcare industry stand to gain more from using the Agile methodology than those in other industries due to their complexity and limits. Health care organisations, which are by nature complex adaptive systems, use a range of medical and non-medical professionals as well as technology to satisfy the requirements of practically every patient

that enters their doors. These organisations must also keep up with the fast growing amount of medical knowledge while operating in a regulatory and reimbursement environment that is always changing. The health care sector seldom, if ever, achieves a steady state; it resists reductionist analysis; and it engages in dynamic environment interaction. These factors make waterfall techniques generally ineffective for changing the way healthcare is provided in a meaningful and long-lasting manner. This is shown by the continual failure of time-consuming and costly initiatives to enhance the delivery of healthcare [15], [16]. Today, the right side of the Agile Manifesto's values statement is preferred by the majority of health care firms. Sustainability is crucial, organisational procedures have been formed as a result of necessity and experience, and budget and planning cycles often necessitate that needs and contracts be spelled out far in advance of execution.

Finding new planning and management techniques that can adapt to changing demands while remaining disciplined and responsible is the argument for Agile. The following fundamental elements from the Agile principles might assist healthcare organisations in hastening the acceptance of fresh concepts and information: defining the problem to be addressed, important metrics, and viable solutions using user-centered design; enabling a team to quickly produce an useable prototype utilising a disciplined, collaborative process; evaluating the first deployment of early work; and embracing fresh user inputs. Testing and validation are an essential part of the agile approach. Test-driven development, sometimes referred to as test-driven work outside of software and created as a consequence of the agile approach to software engineering, is a method of directing design and development by first building microtests that are regularly evaluated.

2.2. Redesigning Health Care:

Importantly, Agile approaches are useful for clinical care redesign in addition to technology and innovation initiatives. By beginning with patients, their families, and communities and collaborating closely with them to provide a care experience that is personalised to their objectives and requirements, teams might utilise agile to reimagine the care paradigm. To develop a fully flexible, responsive healthcare system, the Agile method offers ways to investigate, integrate, and adapt to new and emerging scientific information and technologies as well as the possibility to address changing patient and family needs and expectations. Innovative health care firms adopt this Agile methodology to provide a patient-centric experience. Iora Health is one instance of a primary healthcare organisation that focuses on developing a primary healthcare service that is team-based. Iora Health utilises an Agile strategy to iterate fast to find new methods to build its healthcare services since it acknowledges that designing a health care practise is a dynamic process. For instance, in response to its Agile and team-based approach to care coordination, Iora Health constructed its own electronic health records. Geisinger's "Innovation Architecture" is another example. According to Iora Health's leadership, "the choosing of Agile software development suits [its] clinical innovation mindset." In order to produce outcomes that demonstrably enhance care, Geisinger employs a process that is similar to Agile and include cycles of testing and improvement. This strategy was used by Geisinger for both its ProvenCare programme, which bundles services around a specific episode of acute care, and its medical home work.

2.3. Addressing Roadblocks in Health Care:

Healthcare firms looking to implement Agile face a number of obstacles, but they are not insurmountable. Agile teams must undergo cultural transformations in order to establish and work together, which may be hastened by senior leaders' outward support. Additionally, there may be conflicts between the requirement for iteration and optimization and the desire to

finish tasks. Contrary to popular belief, they are not mutually exclusive, and fast, low fidelity prototype using Agile methods may help to swiftly clarify the requirements testing and optimization of care services. Agile may be used broadly, not only in innovation hubs or microsystems, and coexist with conventional company procedures. Agile initiatives may be integrated into yearly business planning cycles with the support of flexibility in deliverables and budget. Agile-based techniques are designed with built-in flexibility for the combined strategic plan of Froedtert and the Medical College of Wisconsin. Instead than being held responsible for a particular deliverable, leaders are responsible for attaining the strategic goal.

2.4. Benefits of Agile Project Management in Healthcare:

One of the most well-liked methods for project management is agile. We at SMEDIX have vast experience integrating cutting-edge management technology in healthcare organisations, therefore we made the decision to share some of the major advantages of agile project management in healthcare with you.

2.4.1. Increased efficiency & productivity:

Agile project management helps healthcare professionals organise their calendars and stay on top of their duties, which boosts productivity and efficiency. If you break up large jobs, you could work more efficiently and regularly meet deadlines.

2.4.2. More effective self-organization:

To maintain continuous productivity, healthcare employees should be able to self-organize and not always rely on their managers or supervisors. Doctors are supposed to be able to make difficult decisions, especially when faced with time constraints. Everyone may use agile software to record their work, which a manager can then review if required.

2.4.3. Availability of a Large Backlog:

Every job is tracked and kept in the system with agile project management in case it's ever necessary to go back over a particular project or schedule. Healthcare workers may evaluate previous activities and possibly come up with better approaches to handle similar circumstances in the future. In the medical sector, it is crucial to have access to historical data on earlier initiatives.

2.4.4. Better Communication:

Cutting out pointless back and forth discussions between stakeholders is crucial for speeding up project completion in any industry, not just the medical one. It is simpler to provide crucial information when management, physicians, and nurses communicate clearly thanks to agile.

2.4.5. Improved Medical Treatment:

You naturally experience less stress and are better able to care for your patients by keeping your schedule organised and following it. Additionally, healthcare personnel may use the agile system to report the daily duties and patient check-ups they did.

2.4.6. Improved Access to Important Information:

Since everyone is keeping track of their activities and how projects are coming along, healthcare practitioners may glean important information from the logs every trimester. Having access to crucial data may help future healthcare initiatives and allows doctors the chance to share knowledge and refine their procedures.

2.4.7. Innovation:

Modern project management software may significantly enhance the working environment in hospitals, healthcare institutions, and businesses. Since providing high-quality treatment and solutions is at the core of medicine, every healthcare facility should think about enhancing their project management efforts in light of the rising need for better procedures in the medical industry.

2.5. Healthcare Sector Can Achieve Agility:

- Outlining their strategic objectives and determining how Agile may assist them in achieving them.
- Analyzing which departments already use Agile. Some can be the organization's business units for healthcare innovation or the information technology (IT) division.
- Identifying opportunities to introduce the Agile idea and developing a road map to get there.
- Outlining the solid core of the company as well as the dynamic areas that agile teams may manage.
- Using frequent team input to iterate and improve the models using Agile prototypes. Allow for learning while ensuring speedy Agile model implementation in the targeted departments.
- Increasing scalability by making the chosen business units fully Agile.
- The company will quickly reach a stage where the model will become self-sustainable by integrating Agile concepts in one department after another.
- Any other sector may benefit from these procedures as well. Applying the aforementioned ideas might have a number of advantages for businesses and their clients.

3. CONCLUSION

Given all the advantages of agile project management, it is obvious that an agile solution may play a crucial role in any healthcare organisation. Daily operations are enhanced by agile project management, which also provides improved doctor-patient connections, a more organised medical team, and ultimately a productive and effective workplace. The Agile technique was first created to speed up software development procedures while preserving product quality. Agile accelerated value delivery by leveraging short sprints and end-user input for enhancements rather than slower conventional approaches. The strategy placed more emphasis on interactions and people than on technologies, procedures, and customer cooperation outside of contract negotiations. Other goals included responding to change rather than adhering to plans and favouring effective software over extensive documentation. Other than the software development industry, many other sectors now use Agile. Despite this, the technique has taken longer to gain acceptance in the healthcare industry. Agile is applied in numerous industries as an incremental and iterative project management style to help teams meet the demands of the modern workplace. It makes use of a number of frameworks, like Kanban, SCRUM, etc. Continuous process improvement, transparency, adaptability, and quality are at the core of all of these. By reading through the accessible web resources or other study materials, you may discover more about these Agile architectures. The businesses that embraced agile concepts initially have reaped significant benefits. The healthcare industry may have been reluctant to take these into account, but they are now. Increasing client happiness is one of the benefits Agile may bring to the medical system. Additionally, the model may provide a speedier.

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CHAPTER 5

A COMPREHENSIVE STUDY ON THE NEED OF SOFT SKILLS IN PROJECT MANAGEMENT

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ABSTRACT: All occupations in all sectors need soft skills, sometimes referred to as "people skills," especially in leadership roles. They consist of the ability to establish trust and resolve conflicts as well as good communication. The utilization of soft talents by managers may provide them an edge. The collaborative character of projects necessitates the use of soft skills in project management, which are equally as important as the hard skills that are technical in nature and need the application of knowledge and tools. This Study focuses on the Need of Soft Skills in Project Management. It is not only about using technical expertise, and project management is not something that is very easy to do. The right combination of project management soft and hard skills, however, leads in successful and timely completion of projects with reduced stress. These soft strategies can be learned by anybody with a little effort. It may control your own workload by prioritising vital chores before completing others with good time management.

KEYWORDS: Communication, Project Management, Project Manager, Soft Skills, Team Member.

1. INTRODUCTION

All occupations in all sectors need soft skills, sometimes referred to as "people skills," especially in leadership roles. They consist of the ability to establish trust and resolve conflicts as well as good communication. The utilisation of soft talents by managers may provide them an edge. In a world where everything is based on data, these skills have somewhat diminished in value. That is incorrect when it comes to project management, which calls for a combination of soft and hard skills.



Figure 1: Illustrating the Challenges Faced by any organization Due to Improper Project Management [workamajig].

Due to the importance of the issue, PMI developed the Talent Triangle, a model for the ideal project management skill set that combines both hard and soft skills. It emphasizes administration of technological projects, leadership, and business and strategic planning [1]–[5]. The triangle's components are all equally significant. It facilitates management of the workplace via subtle behaviours and communication, making it overly flexible (Figure 1).

1.1. Important Soft Skills for Project Managers to Possess:

Leaders need to have a solid grasp of how teams work and what constitutes a successful team. In teams, goals are discussed, ideas are assessed, and decisions are taken in an effort to achieve previously set objectives. Teams are dynamic, ever-evolving forces. Each member of the team has to understand their roles and goals before the project can start. This is the responsibility of the team's leader, who will also assign tasks based on each team member's ability level [4], [6], [7] (Figure 2).

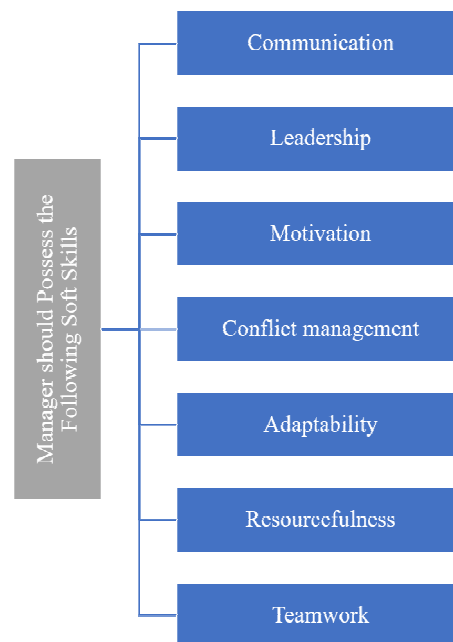


Figure 2: Illustrating the Soft Skills that Need to Possess by the Managers.

1.1.1. Inspiration

The capacity to motivate others is a critical soft skill in project management and a crucial element of leadership. The "will to act" is another word for motivation. Every member of the project team has internal motivational elements, and it is your responsibility as the manager to be aware of them so that you can engage them and influence their behaviour in a good way. Leaders must keep in mind that suggestions and listening are more likely to elicit positive responses from team members than announcements and demands for action.

1.1.2. Interaction

Inefficient communication jeopardises a project's success. Communication must be clear and transparent, but it's crucial to keep in mind that both parties are active in these discussions. The open and honest communication of top-level leadership inspires comparable openness and trust from all other team members. Employees are more inclined to discuss their concerns, issues, and useful comments with project managers who are open and honest with them. Listening is very directly tied to good communication. Good listeners are able to

comprehend and communicate with customers and team members. Developing both of these communication soft skills promotes the parties' shared trust.

1.1.3. Conflict Resolution

It is easier to exert effective leadership while the project team is going through a difficult period by putting conflict management tactics into practise. Conflicts often occur, especially when in charge of a large group of people. Conflicts often emerge from competition for few resources, malfunctioning systems, poor communication, personnel policies, and vague needs. When handled correctly, conflict resolution has the power to bring team members together and strengthen their commitment to achieving the project's overall objectives.

1.1.4. Establishing Trust

A competent leader knows how to win over their team members' trust. Project managers may encourage trust among their teams by being forthcoming with information, honest with decisions, including team members in the process, and really caring about each team member's growth. Developing trust is a highly valued soft skill since teams thrive when members have faith in one another and those who lack it often struggle to survive. Trust among members of the project team is enhanced by having faith that colleagues will carry out their duties proficiently and quickly and provide honest feedback. This trust may help all organisational levels feel more certain and capable of providing correct information.

1.1.5. Making Decisions

Frequently, decisions fall into one of many categories, including routine, strategic, operational, and emergency. Project managers may use different sets of criteria and adopt a different methodology when analysing the various possibilities, depending on the kind of decision that has to be made. Managers must always think about how their actions could influence others, and if they are unclear, they should ask their peers or colleagues for advice. Team members are more likely to trust a project manager who clearly communicates difficulties, generates ideas for solutions, weighs the pros and cons of numerous possibilities, and gathers the necessary resources to put a solution into action.

1.1.6. Organization

Organization is one of the greatest crucial soft skills in project management. One of the main reasons firms search for a project manager is to find someone who can handle several moving parts. A capable applicant can manage responsibilities while keeping track of the many duties, issues, action items, objectives, and options.

1.1.7. Time Administration

Time management is a crucial soft skill and an area where certain rules need to be observed. For instance, projects often grow to take up the allowed time. A project with a two-week deadline is often completed just before the deadline. If you extend the deadline by two weeks, the outcome will remain the same as it will take place two weeks later. Anxiety levels might rise as a result of the efforts' greater perceived relevance and lengthier deadlines. These issues may affect team dynamics, making them an essential part of the organisational strategies used by project managers.

1.2. Role of a Project Manager:

Larger tasks are often broken down into smaller projects with a defined goal, due date, and crew. Every component of the project, including collaboration with stakeholders, deadline

setting, team management, and modification, job prioritisation, planning, employee motivation, and workflow monitoring, facilitation of communication, etc., must be planned for and monitored by the project manager [8]–[11]. As you can see, a project manager must be capable of doing a broad variety of different operations and tasks. As a result, they need a variety of hard and soft skills in order to be successful and effective project managers. Below, we'll go through some of the most important project management competencies.

1.3. Hard skills a Project Manager

One of the responsibilities of project managers is to close the gap between client or stakeholder expectations and what the team can actually accomplish. A savvy product manager can negotiate anything to get everyone on the same page and in agreement on the same goal and final product, from costs to deadlines to the details of what will be delivered.

1.3.1. Relevant Technical Abilities

A good project manager must have a thorough awareness of the work being done by their team, but the specific talents we're talking about will differ from project to project. For instance, having at least fundamental programming abilities and background knowledge is essential if you are in charge of a development team creating an app.

1.3.2. Writing

Oftentimes, a project manager needs communicate in writing. So it goes without saying that writing clearly and effectively is a critical project management skill. One of the best ways to determine if your writing skills are up to par is to ask a trustworthy colleague or superior to examine a sample of the writing you generate for work. Is it clear, accurate, easy to understand, and precise?

1.3.3. Organization

A competent project manager must be very organised, with everything relevant to the project being simple to locate and properly labelled, in order to keep things moving along smoothly and prevent anything from falling through the cracks. If your team often struggles to meet deadlines, loses crucial files or papers, or has trouble finding things, it may be an indication that your organisation skills need to be improved.

1.3.4. Goal-setting and prioritisation

A seemingly endless number of jobs are necessary for any project, yet not all of them can be finished at once. The PM must choose what tasks must be completed immediately and what can wait. Priorities must be made apparent to the team by the PM and connected to quantifiable team goals. Does your team know what the most important project is to focus on at the moment? Do you always make deliveries on time? If yes, did your team accidentally spend too much time on a less important task? The answers to these questions will help you determine how well you can prioritise.

1.3.5. Project management

A project manager sets out to go from point A to point B while attaining certain outputs and goals. How to get there is determined by project planning, and an experienced PM will be able to create a workable, understandable plan of action. If your project planning abilities are up to par, you'll constantly be one step ahead, prepared for the future, and have a clear idea of what's coming up next.

1.3.6. Delegating

The project manager is in charge of assigning and arranging each task's completion date as well as the individuals who will be working on it at that specific time. Every large project includes checkpoints along the way. Effective delegation ensures that the correct people are working on each assignment and that no one is overburdened. While maintaining the autonomy for everyone to contribute their best work to the project, the project manager must also avoid being overly prescriptive, make sure that everyone has access to enough information, and make sure that everything is well planned out in advance so that no last-minute adjustments are necessary.

1.3.7. Budgetary Control

Every project has a set spending limit, and the job of the project manager is to make sure that limit is not surpassed. As a result, one of the most crucial PM skills is budgeting, which requires a solid foundation in math, spreadsheets, and money. A good project manager knows they are budgeting well if their projects consistently come in at or even under the expected budget.

While managing a project, it's never just about getting it done. Communication and interpersonal relationships are the cornerstones of effective project management. Think of a project manager as the conductor of a symphony or an orchestra. To get the symphony to play properly, a combination of leadership, mentoring, communication, and musical preparation is needed. The symphony would need more than just the capacity to write music on their own. The contrast emphasises the importance of soft skills to project management. These soft skills help the leader drive the team toward effective execution, even when they are employed in the background. Soft skills are required since managing people and guiding them through the project lifecycle entails a certain amount of responsibility.

2. DISCUSSION

Soft skills, such as personality traits and social skills, provide clues as to how well a person gets along with others. Instead of emphasising information, it emphasises people's personality. It creates a workplace that is too flexible and easy to manipulate via subtle gestures and conversation. It includes traits like adaptability and flexibility as well as creativity, originality, and the ability to overcome problems. It also includes time management and self-motivation. Employers use this phrase to describe the non-technical, non-measurable abilities they seek in candidates. Soft skills, which are less specialised but more in keeping with an individual's general view and temperament, are also known as transferrable abilities or professional skills (Figure 3).

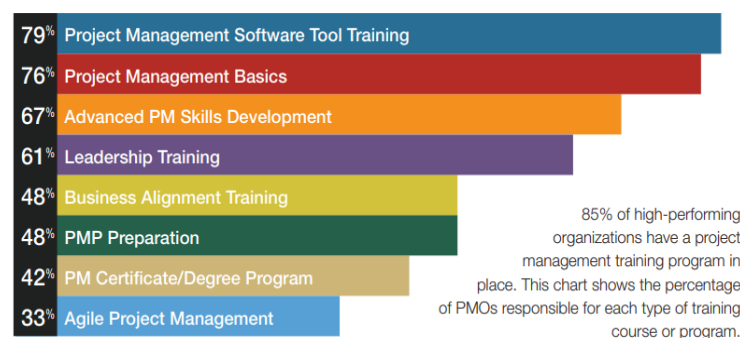


Figure 3: Representing the Few Project Management Training that Increase the Efficiency of any Projects [orangescrum].

Soft skills are essential for developing a collaborative team, thus project managers must possess these. In an attempt to guide their teams to a successful project completion, project managers often undertake project management soft skills training. Additionally, crucial soft skills for project managers include the ability to meet client demands and cultivate positive relationships with both internal and external stakeholders. Having a list of the soft skills required for project management is thus a smart idea. Ways to improve your project management abilities as shown in Figure 4:

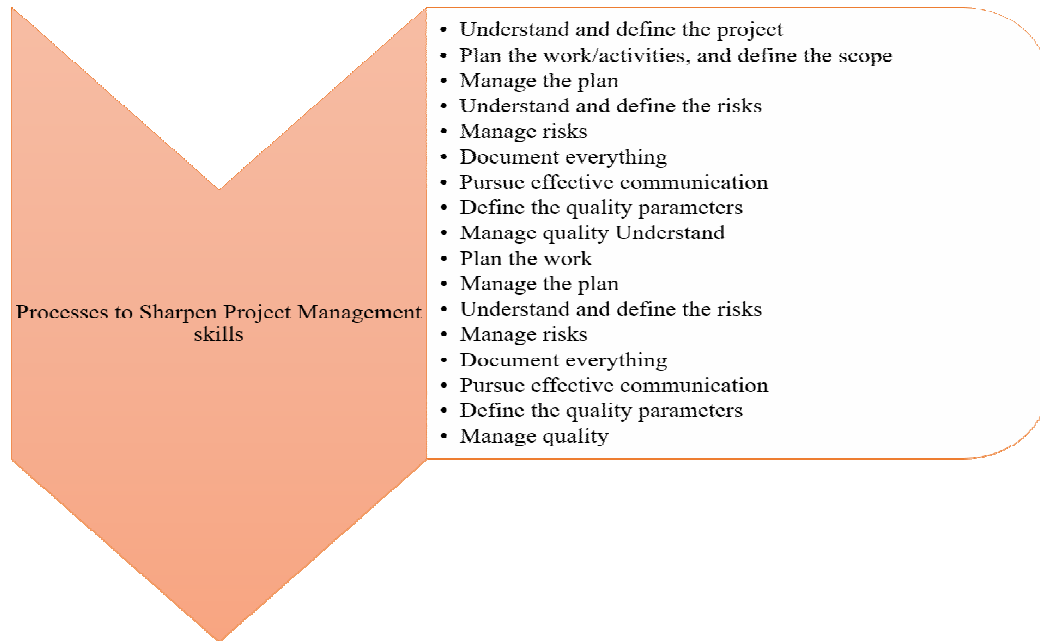


Figure 4: Illustrating the Different Ways that Enhance the Project management Skills.

2.1. Art and Science Into “Project Management”:

Both an art and a science go into project management. Project managers must estimate budgets, create schedules, control expenses, and generate profits, making it a science. It is an art because they have to make sure that everyone gets along well and that the project has an additional edge thanks to efficiency and synergies. In this setting, having strong interpersonal, communication, and personality traits is crucial for project managers [12]–[14]. The project manager directs each member of the team individually, much as an opera conductor would. He or she must thus possess great people skills since they are charged with the duty of leading the team. Additionally, project managers must deal with a variety of stakeholders, including their supervisors, the administrative and support staff, as well as the clients, suppliers, and other project teams that their team is working with. All of these elements demand that the project manager demonstrate their people abilities to the highest level.

2.2. People Enabling and People Management

The project manager also has to possess soft skills in mentoring, team building, and dispute resolution. Teams and other stakeholders will inevitably have conflicts. As a result, the project manager has to be an expert negotiator and problem solver. Additionally, the project manager must foster collaboration and camaraderie; as a result, exceptional team development abilities are required. In addition to this, the project manager must mentor new hires and workers who exhibit great potential. They must impart some of the advice and

techniques that helped the project manager advance to his or her current position in order for the employees to develop similarly.

2.3. Issues that IT Teams Faced while Beginning New Projects:

2.3.1. A bad project plan

Most IT projects are doomed even before they start, if we look at how they are managed. This is a result of the lack of interest shown in the project planning stage. The project's objectives and goals are established during this phase, which is the most crucial step in making sure everything gets done on schedule. It is also the right moment to gather everyone involved in the project and work out the smaller issues, such as choosing success criteria and strategies to get over obstacles. IT project planning attempts made half-heartedly only put the project up for failure as a whole.

2.3.2. Ineffective communication between project stakeholders:

The absence of cooperation and communication among the project's stakeholders is another often mentioned problem. If not handled appropriately, a disagreement among coworkers trying to finish a project might steadily become a hindrance. This might be counterproductive and limit the speed at which individual jobs are completed, which would lower the work rate as a whole.

2.3.3. Spending time switching between various tools:

Agents and managers often have to handle a variety of tools while working on IT projects. This is a severe issue that warrants inclusion on this list. Not only may switching between different pieces of software reduce productivity, but it can also make team members tired. Additionally, it might result in a lack of concentrated time for completing tasks that are really important to your team and worse morale owing to objectives and deadlines missed.

2.3.4. The project timetable is rigid:

Overemphasis on the details may cause rigidity even when there is a determined attempt to plan IT initiatives. It's human nature to go through every minute detail of a project and prepare for every eventuality while planning. Although the motivation behind it is noble, it simply conflates rigidity with the need for caution. Such a perspective not only limits the possibilities during a contingency but also shows poor preparation throughout the earlier phases.

2.3.5. inability to see what your teams are doing:

It will be advantageous to have everyone on the same page so that the job may be completed more quickly and with fewer interruptions. Any communication breakdown on this front, however, might have very detrimental effects. The daily operations of the project may get slowed down by a lack of trust among coworkers. Additionally, it may prevent any attempts at disaster prevention.

2.4. Methods that project management enhances IT projects:

2.4.1. Better Planning

Your team and you will have a higher probability of success if you use project management for improved execution. Project management opens the door for improved work planning right now. A third of the firms feel that using agile planning techniques has increased their project success rates, according to a KPMG poll on agility. Planning aids in the precise

definition of objectives and accountability for each team member. Additionally, it gives a clearer picture of the dates and smaller goals that must be accomplished in order for the project to be successfully completed. Additionally, it offers an opportunity to accurately assign responsibilities to each member of the team for all the tasks required for the IT project.

2.4.2. Just one Platform

Despite the fact that collaboration takes up a significant portion of their workdays, a quarter of Wellington's survey participants in their State of Project Management 2020 study say that they do not have the proper collaboration tool. This issue is easily fixable with the appropriate project management technology in place. It is easier to kill two birds with one stone when a single tool is used for both project management requirements and routine IT service management. A single tool may be used for all service desk tasks and project-related procedures, improving turnaround times and lowering team member fatigue.

2.4.3. Increased Productivity

The largest challenge facing project managers is probably completing projects on schedule. The fact that more than a third of "high maturity projects" are not finished on schedule is clear from this PMI study. The most obvious boost in your team's ability to finish projects on time will be noticeable with the correct project management solution. A manager wanting to increase the success rate of their IT projects cannot do without features like time tracking, which are included in nearly any project management product worth its salt.

2.4.4. Flexible Processes

Adopting a one-size-fits-all strategy would hinder the planning process, even with the proper project management solution in place. Both the project manager and the team members benefit greatly from having the flexibility to handle projects in their chosen mode, whether that be Agile, Waterfall, or Hybrid. After all, they are the ones performing the labor-intensive work. Another PMI analysis indicated that just a fifth of all examined organizations relied on conventional project management approaches, which is evidence of the need for flexibility. An increased rate of project management adoption in IT will undoubtedly result from more freedom to use whatever method required to finish the assignment.

2.4.5. Increased Investment Returns

Knowing that project management also saves more money is the ideal encouragement to boost its adoption as the need to enhance the completion of IT projects grows more pressing. When employing a project management application, a staggering 60% of businesses finished their projects within the timeframes set out, according to the same PMI data cited in point 3. Only 40% of those without one were successful in finishing them. This enormous disparity may be the difference between a company becoming profitable and failing.

3. CONCLUSION

Project management is not only about navigating technical knowledge, nor is it something that is particularly simple. However, employing more soft tactics that anybody can acquire with a little effort, having the correct blend of project management soft and hard abilities results in effective and timely completion of projects with less stress. Not only are soft skills critical for project managers, but they are also crucial for other staff. Today, the leadership and practice of technology are undergoing incremental transformations. The requirement for the technical expert to improve people skills will grow as projects become bigger and more complicated. These interpersonal abilities may be clearly defined, developed, and refined through time. Soft skills are seen to be one of the project manager's minimal requirements. Even while some may disagree, others argue that they are abilities that can be taught rather

than talents that are innate or inherent. Prolific relationships, or soft skills, are necessary imperatives for growth.

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CHAPTER 6

SURVEY ON THE IMPORTANCE OF DIGITAL MARKETING IN VARIOUS BUSINESS SECTORS

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ABSTRACT: Any promotional activities which take place online are referred to as digital promotion, often known as internet-based sales promotion. To engage with present as well as potential consumers, firms use online technologies including web pages, social networking websites or web pages, emailing, as well as internet platforms. It also involves messaging via texting or other types of videos. Modern-generation salespeople use internet advertising as their primary method of advertising. In this paper, a comprehensive survey is conducted on digital marketing's importance in the business sector. Conventional advertising strategies seem to be lesser successful nowadays in achieving benefits. Salespeople are shifting to online promotion as a result of technological improvement. With a little less effort as well as immediate access to the targeted viewers, online advertising has emerged as a novel method of advertising. Yet, there is solid statistical evidence supporting the efficiency of online multimedia advertising. Both fields of advertising and conservation have achieved significant strides. Yet, there remains a significant disconnect in how people as well as commerce behave and view durability and how well-equipped businesses are to recognize as well as deal with this movement. The solution to closing this disparity involves online advertising.

KEYWORDS: Advertising, Business Sector, Digital Marketing, Email Marketing, Social Media Marketing.

1. INTRODUCTION

The audience must be technologically intelligent for enterprise folks to be capable of making use of the world wide web as well as social collaboration techniques as just a medium for conducting marketing. This is because businesses are hampered by barriers resulting from an absence of understanding of computerized advertising as well as digitized trade. Online marketing has grown progressively crucial in the middle of a catastrophe to provide fresh chances for organizations to expand. To encourage communication amongst manufacturers as well as prospective customers, electronic advertising includes dynamic as well as integrative branding. Furthermore, online marketing is highly effective in assessing success as well as reaching the targeted audience [1].

Digital networking advertising is far more affordable yet time-efficient. Even though opposed to traditional advertising tactics (outside branding), online advertising provides several benefits, such as the ability to assess a method's effectiveness. Also, prospective customers may only do searches as well as receive item data online. Furthermore, internet advertising may approach the targeted audience better precisely, cost-effectively, as well as promptly analyze results. In the age of digitization, tactics focused on internet advertising must be used to accomplish objectives greater quickly or precisely. The term "electronic advertising" refers to the primary applications of electronic technologies to a company's advertising efforts. Digital advertising approaches are used in conjunction with conventional promotional strategies within businesses that appreciate the role which advertising plays [2].

Among the major factors contributing to the widening distance among consumers as well as businesses along with the largest business difficulties is indeed the web. The way organizations operate, and engage with their clients, and consumers, including the general public, has changed because of online advertising. It's growing into a crucial as well as imperative tool to meet the ongoing issues inside the advertising world. Likewise, with the dawn of the twenty millennia, durability has grown to become among the largest difficulties

facing businesses, especially advertising. Investigators have extensively explored the relationship between advertising as well as sustainable development, which has led to the realization also that the two ideas complement one another. Changes inside the distribution chain, product innovation, accessibility to informed shareholders, or increased staff dedication are all favored by sustainable development. Moreover, advertising provides a means of influencing societal ideas as well as a means of better understanding customer behavior [3]. Figure 1 illustrates the classification of digital marketing approaches.



Figure 1: Illustrates the classification of digital marketing approaches [PIMS].



Figure 2: Illustrates the key benefits of email marketing [Aweber].

Any commercial advertising activities which rely on the web are categorized as online advertising. Companies use online technologies to promote company brands. These platforms encompass social networks, emailing, search platforms, as well as other websites to connect with prospective but also existing customers. Digital advertisement as well as outbound communications are often considered to be the same things by those active in traditional

corporate sales. Yet there are a few minor variations. The significance of internet communication Although traditional advertisement was done via magazines, billboards, brochures, telemarketing, or direct marketing, modern marketing is done through internet channels [4]. Figure 2 illustrates the key benefits of email marketing. Figure 3 illustrates the key benefits of social media marketing.



Figure 3: Illustrates the key benefits of social media marketing [The Investor Book].

Consequently, it's indeed evident that today are several other channels, like online networking, telephone, and search engines, including multimedia, which could be utilized to connect a business with its target audience. For a such product as well as the company which is responsible for building market awareness today, online marketing is crucial. There seems to be a webpage for practically every industry. Also, in certain instances when there aren't many businesses, companies simply create a social networking website or profile to demonstrate business existence or a strategy for internet advertising. Clients today utilize and place a high degree of faith in client evaluations to understand businesses because online content as well as promotion are so commonplace. To be a decent company manager, people must understand certain aspects of online promotion [5].

As there are several options as well as connected strategies for internet branding, marketing professionals may become creative as well as experiment with various forms of adverts thus according to particular budgets. Compared to traditional forms of promotions, including printed ads or advertising, digital marketing allows customers to use technologies for assessing displays to track company development but also return on investment less accurately.

An effective technique to advertise goods but also activities to consumers but also businesses while developing our original goods as well as offerings is via network branding, a kind of web promotion. The primary responsibilities of such an affiliate salesman seem to be to sign up for affiliate programs, identify effective yet reliable items to advertise, and afterward

distribute these items to the intended marketplace to generate revenue. Figure 4 illustrates the key benefits of affiliate marketing [6].



Figure 4: Illustrates the key benefits of affiliate marketing [Javatpoint].

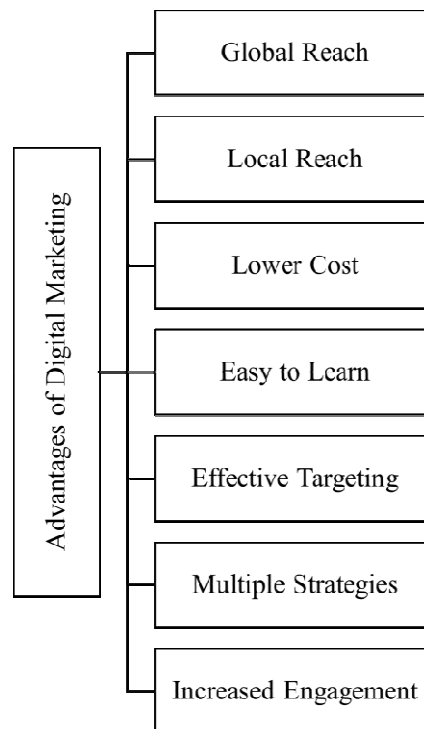


Figure 5: Illustrates the advantages of digital marketing.

In today's world, online networking is considered a medium that allows users to engage, communicate, as well as participate with one another via instantaneous chatting in addition to giving users a place to discover companies, exchange product information, plus engage with businesses. With the advent of digital networking, businesses, as well as organizations, now

have a variety of fresh opportunities to reach as well as connect with consumers. Digital media's expanding advertising capabilities may be an effective instrument for corporate recognition enabling long-term company viability. Social networks are being used for more and more things every day, and about multiple Web consumers becoming members of digital networks [7], [8]. Figure 5 illustrates the advantages of digital marketing.

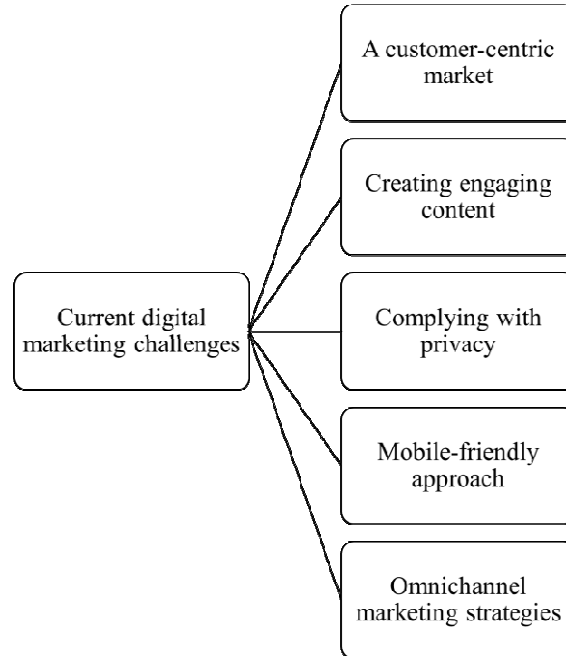


Figure 6: Illustrates the current challenges in the digital marketing field.

Participation seems to be the rage mostly in the corporate sector nowadays in any manner. Customers want companies to have a deeper psychological connection with people beyond only offering people goods as well as solutions. It shows a change from transaction promotion to the increasingly popular relationship-focused strategy. When administrators consider developing a longer-term connection with company customers, that would aid companies in securing brand recognition as well as a commitment toward their businesses, companies tend to pay close regard to customer involvement. This same enormous possibility of spending work in the online sphere while taking into account various online networking channels has been recognized by advertising professionals all over the world. In a comprehensive strategy, client involvement takes into account the intellectual, behavioral, as well as emotive facets of the customer connection [9], [10]. Figure 6 illustrates the current challenges in the digital marketing field.

2. DISCUSSION

Nowadays, the phrase "internet advertising" is one people hear often. It serves as the primary advertising channel for tiny, middle, as well as big businesses. Advertising is indeed a vibrant, ever-evolving, constantly demanding corporate operation. Because of a variety of instability, including energy as well as material scarcities, wage growth, financial downturns, massive unemployment, dropping dead enterprises as well as firms, and impacts of quick high technology advancements in some enterprises, this same marketing profession has undergone a significant transformation. A formalized method of gathering precise as well as expeditious data regarding clients, goods, the world market, as well as the whole surrounding is now necessary due to the kinds of adjustments, which include all the online platforms, that have compelled today's business executives to become further demand based in one's

business strategy verdict creating. The practice of using the Web to promote as well as promote products or activities is called web advertising. Online advertising makes use of the potential of digital trade to advertise as well as offer goods. Every business over the web is referred to as a digital business [11], [12]. E-commerce enables online purchasing, renting, and exchanging of goods and activities. E-commerce is a subcategory of online sales. Online promotion has begun to get a lot of traction as just a result of the explosion in worldwide web use. It is stated that text-only webpages which provided business data were the earliest to provide Digital marketing services in the start early 1990. With the expansion of the web, there is now a lot more to it than only the sale of goods; there is now education regarding goods, advertisements, technology, marketplaces, equities, as well as networking. Some businesses, like Facebook, eBay, Walmart, Taobao, as well as Youtube, significantly transformed how the web may be utilized for advertising. Throughout this article, several presents, as well as emerging developments in online business, are discussed [13]. Figure 7 illustrates the digitization role in a business-to-business relationship.

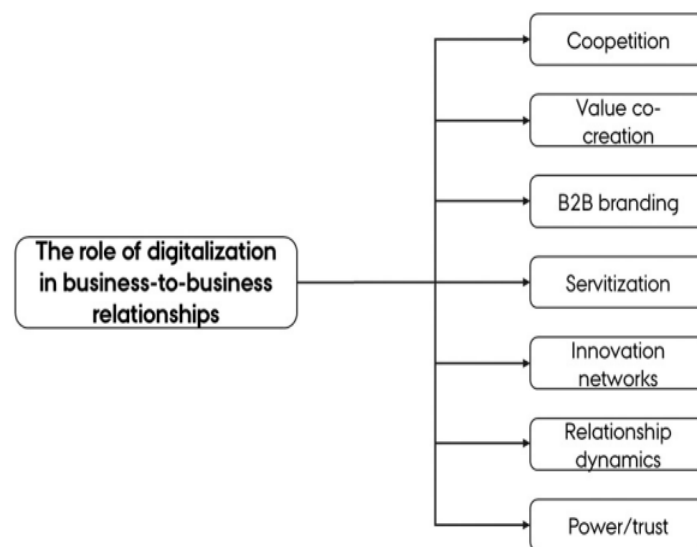


Figure 7: Illustrates the digitization role in business-to-business relationships [1].

Strategic planning, and advertising, including setting prices for products, activities, and even concepts are all part of the overall promotional strategy. Wikipedia defines branding as the act of organizing as well as carrying out the ideation, costing, promoting, and circulation of concepts, products, including commodities to generate trades that meet both personal as well as corporate objectives. Because branding has every time been accessible to innovative concepts as well as patterns, it shouldn't come as a surprise that numerous businesses but also brand names have switched from straightforward advertising to electronic advertising in recent times. Because digital advertising serves as just a platform for people to stay current with their lifestyles, as well as advertising has every time been accessible to innovative concepts as well as patterns ever since mid - the twentieth century.

Online advertising is using the web, social networks, and smart devices to communicate with consumers. Internet advertising, according to promotional professionals but also large retailers' companies is indeed the latest method for comprehending consumer behaviour and therefore should assist marketers to achieve consumers extra successfully than conventional or onsite methods because social networking consumers seem to be extra probable to share personal information about their lifestyles on sites like WeChat, as well as Facebook. Because manufacturers are focusing on a particular clientele for every commodity in their adverts, marketers also have formed profiles on the social internet to stay in contact with their

clientele as well as to maintain an eye on innovative patterns but also consumer preferences. This will profit one's vendors as well as improve the achievement of this same model [14], [15].

Throughout the 2000s, while online branding has kept developing, companies, as well as companies, have transformed how they employ innovation as well as their advertisement strategies. Since customers are increasingly likely to utilize electronic gadgets more than physically attend stores, firms are finding that online promotion is much more successful. Given how prevalent information has grown in past decades, the notion of online business is becoming essential. Omani companies followed suit as well as utilized online advertising to continue luring in fresh clients since it enables them to better their goods through learning about the company target industry's demands as well as preferences via various internet platforms. Online transformation may be done using a variety of techniques, including innovator advertising, social networking advertising, billboard advertising, internet search advertising, and sometimes potentially virtual activities played via mobile applications. In actuality, online advertising is quickly extending to offline outlets. Text as well as setting are two instances. As a result, companies would have to create methods of marketing that followed current tendencies in society. Furthermore, several firms have leveraged online networking personalities to promote business goods.

The instruments used throughout the choice-making procedure are also rapidly altering along with the corporate climate. This same company must increase consumer happiness, surpass investor expectations, and combine effectively align the interests of all parties to stay successful within the ever-commercial landscape. Throughout the previous three centuries, there has been a significant increase in web clients' business products, therefore businesses have increasingly begun to transfer their attention from physical to digital advertising to expand their consumer base. Consequently, sales publicity also isn't viewed by numerous academics as some other type of sales publicity strategy like branding, individual sale, or lead generation, between numerous others, however and rather as a potent channel for integrating the numerous branding techniques of various websites to achieve extra focused domestic and international as well as international audiences.

3. CONCLUSION

To get positive outcomes, businesses must choose the appropriate online promotional strategy. Every firm needs to use strategies like online networking promotion as well as search engine optimization (SEO) to promote itself. The rest, however, are dependent on several factors such as type of business and audience. Both the targeted demographic as well as the kind of technology people utilize must be considered while deciding on the sort of online advertising. Organizations may develop more successful, cost-efficient advertising approaches in this manner. The objective of digital marketing is to attract a large audience of consumers to see as well as buy the items, for providing huge profits to the organizations. Therefore, businesses must decide appropriately. This paper provides a comprehensive review of digital marketing's importance in the business sector. New artificial intelligence (AI) based technology may be significantly used to alter advertising tactics including consumer behaviour prediction throughout the future for better outcomes.

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CHAPTER 7

METHODS FOR IMPLEMENTING HYBRID PROJECT MANAGEMENT: CHALLENGES AND BENEFITS

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ABSTRACT: The project management technique most suited for a given use case is created by combining aspects of the waterfall and agile methods. The best of both worlds is what project managers want, yet a waterfall or pure agile approach may be restrictive. Since there are no set standards, hybrid project management enables users to mix and match agile as well as waterfall components as required. With hybrid project management, you may combine methods to create something that is even more useful for your specific project. Many businesses operate in settings where the conventional procedures they use have changed over time. It is important to choose a technique that outlines a project's intentions and objectives in detail and mandates that everything be well recorded. This study focusses on role Hybrid Project Management in Project. With hybrid project management, you have the ability to blend approaches to come up with something that is even more effective for your particular project.

KEYWORDS: Agile, Hybrid Project, Hybrid Approach, Project Management, Waterfall.

1. INTRODUCTION

One thing you will immediately discover when you enrol in project management training programmes is that there are a variety of techniques you may utilise, and each one has advantages and disadvantages. It may not always be the same one you use, so it is very essential to weigh all the advantages and disadvantages so that you can decide which is best for you. Which one you choose to use will depend on a variety of various circumstances. Here, we'll examine the advantages and disadvantages of the hybrid project management (HPM) strategy. When you mix two distinct things, you get a hybrid. In the case of a hybrid project management technique, this entails combining an “Agile methodology” with its more adaptable approach with those from a more conventional project management setting [1]–[5]. In order to create a product that offers the best of both worlds, it investigates the different approaches that may be applied to either, including scrum and PMI. You may wonder why a hybrid technique is not just the one that everyone employs if it provides the best of both worlds. As with every methodology, it has advantages and disadvantages and is not ideal in every situation that a project manager can face (Figure 1).

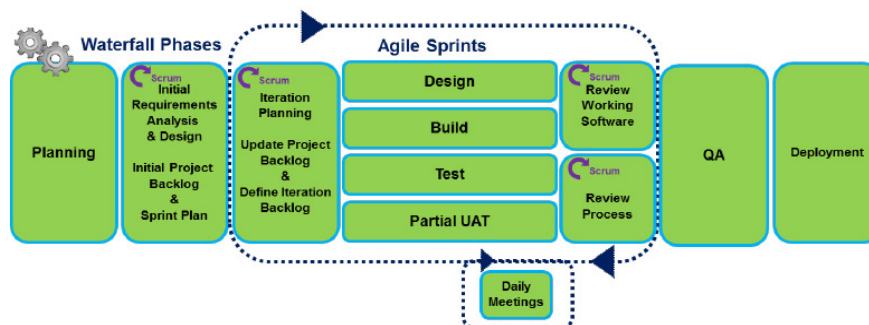


Figure 1: Illustrating the Hybrid Agile and Waterfall Approach [pmi].

Many companies operate in environments where the standard practises they use have evolved through time. This is partially due to the fact that compliance entails more obligations and demands higher standards. This suggests that when it comes to projects, it's crucial to choose a method that clearly states the purposes and goals of a project and that takes into account the need that everything be well documented. In certain circumstances, the methods could be recommended by an outside source, such a regulatory authority. However, as software plays a larger role in both everyday life and the production of tangible commodities, things are changing, and the agile approach is becoming a more and more popular choice [6]–[9]. When some elements of the agile methodology, such as scrum, are combined with traditional procedures for certain subprojects, businesses may profit from what both approaches have to offer and choose a solution that is best suited to the needs of the project they have in front of them. This might make the project better, help them reach their goals faster, provide better results, or result in cost savings (Figure 2).

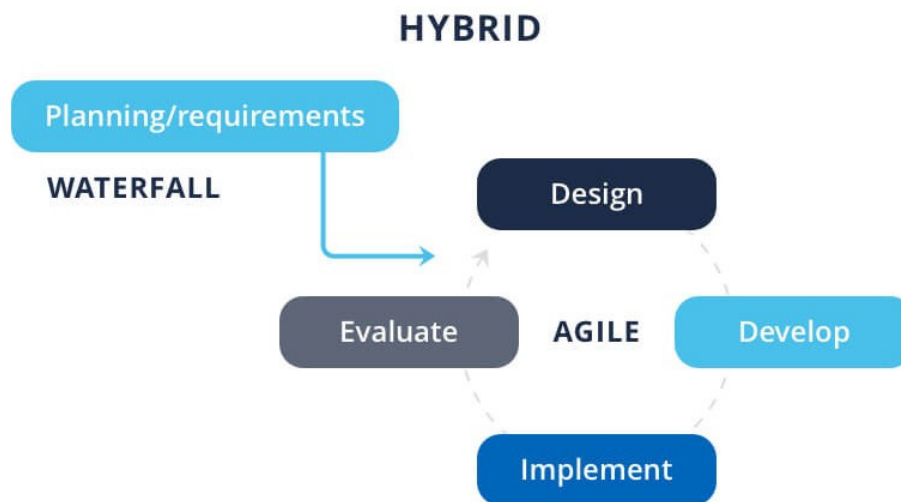


Figure 2: How to succeed with hybrid project management and how it functions

1.1. Challenges of hybrid project management:

Even though HPM enables you to use the greatest aspects of your preferred project management methodology, there are still certain difficulties involved. Preparation a project using two different techniques may be challenging since the timetables for each methodology may vary. To make sure that everything is planned for, you'll need to perform more extensive planning. Obtaining stakeholder support is also essential when putting a new project management technique into practice [10]–[12]. Your project sponsor may not be aware with your hybrid technique and need help informing other stakeholders of progress updates. When employing two separate project management approaches, communication becomes more difficult. As the PM, you'll need to have a solid understanding of your chosen tactics and be ready for more frequent and varied stakeholder engagements.

Businesses may benefit from the agility and adaptability of Agile as well as the rigidity and clarity of the Waterfall model by using a hybrid approach to project management. However, for companies to effectively take advantage of these advantages, there must be complete agreement at all levels about the objective, how the work is organized and carried out, and how results are obtained. The answer is HPM in IT business management, according to Service Now, a pioneer in management and workflow automation. The Service Now ITBM Professional license offers HPM, which provides necessary solutions, resources, and tools that are conveniently available on a single platform. Agile and HPM extends these ideas

beyond simple execution and instead develops a comprehensive, top-down hybrid strategy that incorporates these ideas at every level. This promotes organizational alignment so that departments throughout the whole business can adapt to changing operational situations and increasing consumer expectations.

2. DISCUSSION

Complex and unpredictable projects are best suited for an agile methodology. The waterfall method, on the other hand, is the most effective for routine, repeatable tasks with a defined methodology. You may wish to employ an agile strategy if you are working on a big, complicated project. Agile project management may, however, be difficult to adopt in big organisations. More procedures are often adopted in bigger businesses, making it more challenging for an agile team to achieve a breakthrough. The project team and the organisation must be prepared for this strategy. From an organisational standpoint, the agile team must have its own area where it is free from the restrictions of the standard working environment. Agile team members that have the appropriate open mentality to operate in many ways. A HPM method offers a chance to enhance project results while preserving organisational controls and structure, particularly for big firms with inflexible procedures. A hybrid project management technique is beneficial for projects that have a tight delivery deadline and the objective of creating a workable solution quickly [6], [13], [14]. It will ensure both on-time delivery and a functional product. Overall, you might argue that a hybrid strategy will assist any projects that have a short-term emphasis on product features and a long-term focus on the end outcome (Figure 3).

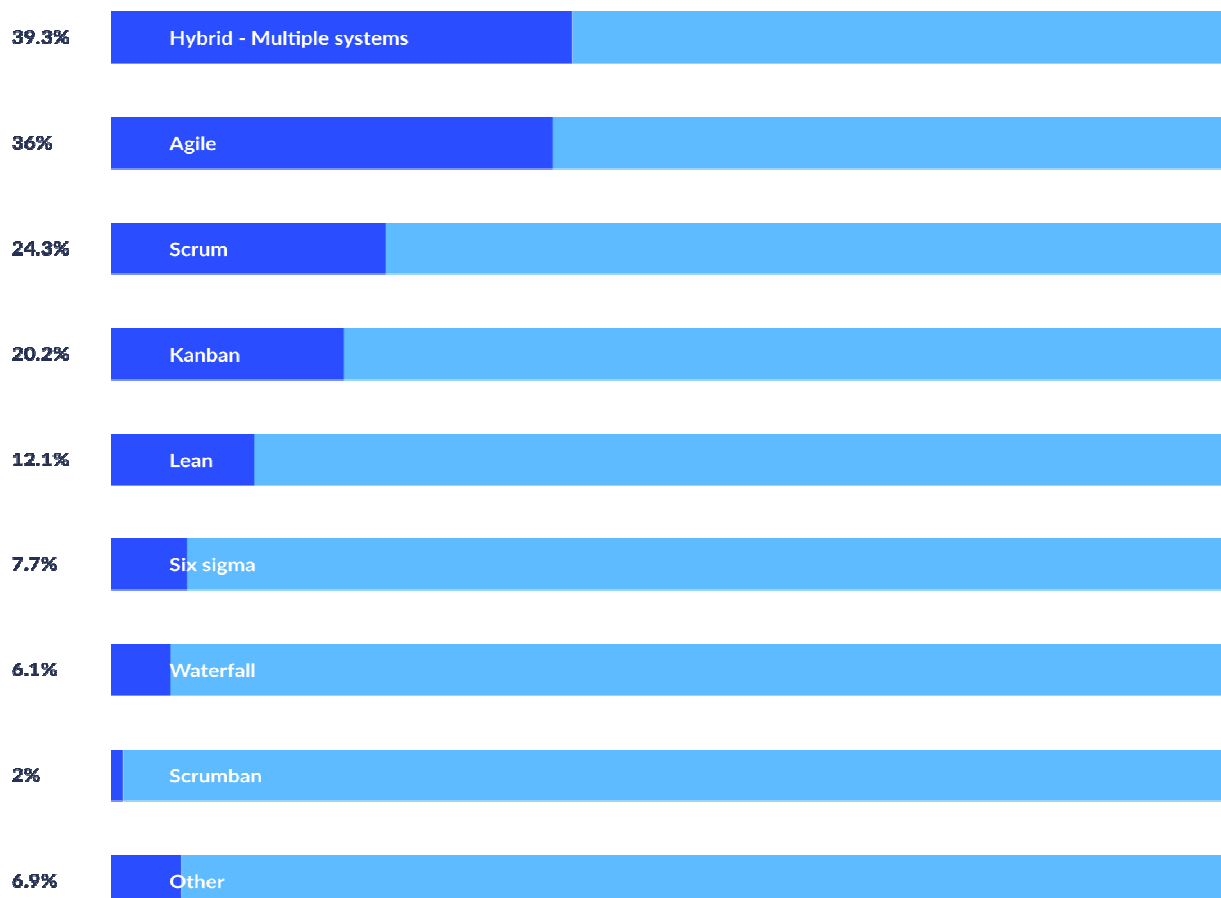


Figure 3. Graph Illustrating the Project Management Approaches that Team Use to Do the Work [zentao].

The term "HPM" refers to a project management technique that blends planning tactics from a more adaptable and quick (Agile) approach with a classic project management environment (Waterfall). One of the unfavourable things that often occurs is the perception that the Waterfall and Agile methodologies are rival approaches with different strengths. We seem to have to reject this kind of binary decision in order to get a wider viewpoint. The problem is that there is no way to separate predictive project management from adaptive project management using two different methodologies, each of which has advantages of its own. The phrase "cut and close" is used in HPM because of this. For instance, when we take a number of salvageable parts from two wrecked automobiles and put them together to create a new car.

2.1. Need of HPM:

2.1.1. Hybrid as a Stage of Transition:

Imagine making the significant transition from the lengthy Waterfall system installation to the quick-paced Agile methodology. The organisation could find it challenging. Due to this, several businesses have chosen a mixed approach to lessen rapid and complete transformation. Therefore, in organisations whose procedures have been altered to be quicker and more adaptable, HPM is often used by first using specific indications.

2.1.2. Agile Project Management Issues:

There are hazards associated with the Agile style's rapid speed and adaptability. Not all businesses and the projects they work on can function effectively and dynamically in this Agile approach [15], [16]. especially if you use this approach for a project whose time and space constraints are not strict. So, one of the greatest choices is to switch to HPM if your project still has to move as quickly as possible but can't accept mismatches in any of its components.

2.1.3. Reactions to the Predictive Project Management Issues:

The Waterfall process has dangers, just as Agile does. Your business may be able to foresee the project's outcome, but it still has to be flexible. Implementing HPM may thus be a sensible compromise, just as it was above.

2.1.4. Offer an Appropriate Approach to the Project:

Finding the best project management technique is your explicit responsibility as a project manager in order to execute the project on schedule, under budget, in accordance with requirements, and with full accountability. The most crucial thing is to choose the strategy that delivers the greatest benefit while posing the fewest risks. The strategy can be a hybrid one.

2.2. Methods to Develop HPM:

2.2.1. Predictive Project Management

The Waterfall Method is another name for this kind of project management approach that is widely used. Even though it seems obsolete and archaic, this particular approach has several significant advantages that you may use for the hybridization process. These advantages include:

- Have extensive planning that includes thoroughly established project goals and associated tasks.

- Overseeing, managing, and governing initiatives that are already advanced in their stages.

2.2.2. Agile (Adaptive Project Management)

The majority of initiatives, particularly those involving software development, now employ this single approach. This approach may be used in dynamic and flexible work settings. The following are some crucial elements of this approach that you may use for the hybridization process:

- Strong emphasis on user and other stakeholder requirements.
- A method of progressive and repeated development.

2.3. Function of Project Manager Play in a HPM Environment

When hearing about the HPM pattern, this one question appears to be on some people's thoughts. Indeed, the project manager's job is often eliminated in Agile methodologies, especially those that use the Scrum framework.

Instead, teams will be formed to handle the project manager's duties. The Product Owner, Scrum Master, and the full Scrum Team may all assume project management responsibilities in Scrum. However, a project management function that performs duties like:

- Coordinating various Agile parts in the project is almost likely included in a hybrid approach.
- Controlling and overseeing the total team effort.
- Outlining the specifics of the current project, including its description, business case, and infrastructure, in accordance with the signed contract.
- As a project communicator who works closely with all parties involved.
- Wrap up and complete the project task.

2.4. Waterfall and Agile:

While there are numerous project management approaches available to choose from or even combine, in our humble view, Waterfall and Agile are the only serious rivals due to their popularity and fundamental distinctions [17], [18]. To be able to choose wisely, we must first comprehend the details of each technique.

2.4.1. The key characteristics of waterfall project management are:

- Higher cost of change
- Difficulty in learning and steering
- Early definition of the end goal
- Effort-demanding planning
- Higher risk for projects
- Focus not on early value confirmation
- Needs significant experience from project team
- End goal-centric

2.4.2. Important characteristics of agile project management include:

- Making project contracts more complex
- Needing both project requestors
- Not suitable for projects with strict deadlines where phases

- Needing a lot of experience from the project team
- Difficult to follow and estimate in the beginning
- Customer-centric

2.5. How to combine Agile and Waterfall

Before moving on to real HPM solutions, it is important to understand how these two concepts should be combined logically. This is why we provide straightforward examples to familiarise you with this possibly game-changing strategy (Figure 4).

Waterfall project management	Agile project management	Hybrid project management
Project Work Breakdown Schedule	Project Backlog	Phase Backlogs
Detailed project planning	Iteration planning	High level planning + iteration planning
Early definition of project goal	Agreement of goal with constant learning and adapting via smaller goals	Agreement of goal with constant learning and adapting via smaller milestones
Focus on stages	Focus on early result	Focus on end result for each phase
Emphasis on documentation and details	Emphasis on value delivered	Emphasis on value delivered
Fixed budget	Variable budget	Flexible or fixed budget
Well defined goals	Unclear or estimated goals	Estimated or well defined goals
Long to medium duration	Short to medium duration	Any duration
Great when resources are partially available	Works best when resources are fully available	More flexible when resources are partially available but still works best with full availability

Figure 4: Illustrating the Benefits of Hybrid project Management by using Waterfall and Agile Methodology.

2.6. Choose project components for certain approaches

If used on the correct sorts of projects, the techniques Waterfall and Agile are both very successful. Use this information to your advantage by examining the project to see where the Waterfall technique would be more suitable and where Agile would provide the most assistance. Start by defining the project's fixed, rigid, and well defined components, as well as those that have rigorous deliverables, requirements, and resource allocation. Apply the Waterfall technique to these issues. Then, note any project components that are not clearly specified, such as deliverables, specifications, or resources that are somewhat flexible or may change as the project develops. Implement the Agile technique for these components. It could be helpful at this point to look back on prior projects, pinpoint any trouble spots, and think about how changing the methods used there might enhance the process as a whole.

- Team members should be trained,
- Hybrid components included,
- Project effectiveness openly discussed,
- The hybrid approach regularly assessed and modified.

2.7. Why HPM is Required

You must choose the appropriate strategy in order to complete a project successfully. Agile delivery techniques may help by adapting to changing needs and environments and taking

client input into account. You can deliver projects with a clear, effective strategy and structure thanks to waterfall project management. If you get married, it will be in your favour if your project is successful. The most typical technique to implement HPM would be as follows: The project is planned in the conventional "waterfall" manner, so the requirements and scope are established up front. Then, using agile approaches, such as sprints, development and testing are carried out. Planning for these sprints involves ranking the importance of task items. After sprints, stakeholders will provide input so that it may be optimised and repeated if required. Create a process roadmap for the team and stakeholders before using a HPM strategy. This will help you to:

- Clearly define your project and the purposes for which you will employ agile and waterfall elements.
- Review the project management procedure on a regular basis and make improvements as needed.
- Project is the best solution for HPM since it seamlessly combines waterfall and agile capabilities. Use a Kanban board to visualise and carry out activities, for instance, and develop a Gantt chart to plan the timeframe for your project.

2.8. HPM That Works

Project management techniques aim to develop more effective teams that make the most use of their time and resources. Finding a management technique that works across your whole project portfolio might seem unachievable as projects become more complicated and flexible. However, HPM attempts to provide your company a fresh, flexible alternative. According to 39% of respondents, teams are increasingly using hybrid or multiple system techniques for project management, demonstrating that relying only on one solution no longer works for them. But it doesn't imply you should abandon these techniques entirely. Project managers that use a hybrid strategy more often combine the best elements of several approaches to best fit the projects they are working on. Successful HPM as shown below:

- Planning first

After understanding the distinctions between waterfall and agile project management, decide which components you want to use at which stages. Managing many sprints at once, doing additional research, or using and responding to applause testing throughout the development stages all need your team to be on the same page. If your approach is selected before the project even starts, everyone will be able to understand their responsibilities and timelines.

- Verify Your Software

Different management techniques need different types of software. The qualities required for a hybrid approach may not be included in what works for agile or waterfall projects. You may need content marketing campaign calendars, project boards, and SEO tools for your project. Instead of trying to inadequately integrate your project into your current programme, choose a solution that does this. The programme may also be customised to meet your demands for HPM by integrating with other applications.

- Develop Your Group

It will be different from what they are accustomed to if your team has never utilised HPM. Some procedures must be well understood, particularly when it comes to how they work with your current procedures. Setting up time for training makes that your crew is aware of the

tasks and sprints and can carry them out as needed. Additionally, it gives you the chance to respond to any inquiries beforehand, ensuring the success of your project.

- **Develop Your Skills**

Some abilities are crucial for your teams to learn, regardless of the proportion of agile to waterfall aspects employed in your hybrid approach. Maintaining effective communication speeds up project progress and keeps everyone informed. Giving the project direction and attaining its goals requires planning skills and documentation expertise using screen and video capturing. Your team will succeed with HPM if you put these abilities and others into practise.

- **Examine Your Projects**

Reviewing what works well and what may be done better is the greatest method to make your hybrid management better. By looking back on your project management, you may determine where further assistance or preparation is required and how to provide it in the future. Additionally, it draws attention to your team's accomplishments, including QA testing, concurrent cyber security installations, efficient software use, and satisfying client requirements and expectations.

- **Discover What Suits You**

Instead than being something fixed, HPM is more of a sliding scale between agile and waterfall methodologies. It's OK to test a different mix of features if one doesn't work for your teams or projects. You may discover what works best for your scenario and improves project management by experimenting with various techniques, whether it be totally remote work or a hybrid approach. Once you realise this, you can finish tasks more quickly and provide for the demands of your clients.

3. CONCLUSION

Like every profession, project management is continually developing. In the current business climate, many companies see project management as a tool for fusing their endeavours with other tactics. This necessitates a dramatic delivery of increased project execution efficiency, candidate identification, and the creation of a superior competitive advantage. Due to its age, resistance to change, and stubbornness, Waterfall has come to represent the bad guy in the room as Agile has gained popularity. Agile, on the other hand, is a fresh face on the block young, quick, and adaptable. If appropriate and advantageous to the project, hybrid solutions may include elements from various techniques. Based on the parameters of the project, hybrid project management will apply the best of both worlds to the project. Hybrid approach is not always the best option, but when used by a skilled PM to fit various projects and client requirements, it helps to keep the organization running smoothly. Hybrid may be the simplest option to execute changes that may have immediate impact since it is by definition flexible and adaptive to projects and organizational needs. This does not imply that it is a solution to every issue. The best approach for a team, organization, or project will rely on a variety of criteria. Hybrid approaches to project management would imply that the team managing the project is able to plan before beginning work on the project, in addition to the project development cycle in the hybrid approach to project management being divided into various short-term project deliverables known as sprints.

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CHAPTER 8

AN EVALUATION OF CLOUD-BASED SUPPLY-CHAIN-MANAGEMENT SYSTEM AND ITS IMPACT ON AN ORGANIZATION

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ABSTRACT: *Optimizes cloud computing processes by offering tools, platforms and digital evolution to network supply chains and have positive both financial and operational impact. In this paper it has been analyzed on how a cloud-based logistics management ecosystem fosters supply chain adaptability and design the ecosystem's infrastructure. Supply chain management's volume, flexibility, and quick detection and response to modifications is how the author focused on understanding supply chain management. The possibility of improving SCR and using the cloud is examined, with the use of hypothetical states based on supply chain activities in fashionable retail. A comprehensive cloud-based supply chain management system is introduced in this paper and demonstrating how businesses can improve their supply chain response. Innovating, manufacturing and distributing services and products will become a joint effort between multiple parties across a greater supply network. In the future, this paper will separate the information about this title and it help the other researcher and students to understand supply chain management.*

KEYWORDS: *Cloud Computing, Cloud Management, Cloud Technology, Information System, Supply Chain Management.*

1. INTRODUCTION

One of the major goals for many corporations is the production as well as delivery of goods or services on time for the lowest possible cost. Although implementing sustainable service delivery technologies can have a positive impact, contemporary international amount chains are not flexible plenty to adapt to the demands of lean-operations for petite delivery times [1]. With substantial advances in digital-communication media and information-technology (IT) over the earlier ten years, there is a growing recognition that efficient integration of such technologies can enhance supply chain management. The commercialization of cloud-computing can afford a solution to these problems [2]. “Networks”, “servers”, “storage”, and extensions are turned into a common utility by distributed systems so that customers can either rent or release them as needed via the Internet.

The privatization of the common corpus of IT resources enables dynamic restructuring in response to various volumes and volumes of user requests [3]. They can serve a wide variety of physically remote consumers in this way, which reduces ownership costs while increasing scalability and quick deployment. According to scholarly studies, cloud computing has the potential to improve corporate governance. The author provides an in-depth analysis of some, such as the business benefits of mobile infrastructure, in addition to several recommendations for government leaders to support the technology [4]. The author also looks at how cloud applications can improve the scalability and privacy of operations, as well as how they can increase the accuracy of complex service production in the medical industry.

There has been little study examining the complete aspects of SCM to observe the bearing of cloud-systems, despite continued recommendations for their adoption, which are highlighted in Figure 1. It develops the architecture of cloud-based-SCM-systems and investigates how

applications can develop supply-chain efficiencies to optimize supply chain efficiencies because the development, manufacturing, and delivery of services and goods can be rapidly delivered [5]. A joint struggle of some battles in the series (SCR) is being formed. On the other hand, the researcher provides a brief overview of the central moralities and proficiencies of cloud-based-solutions, discusses the impacts as its embracing will affect supply chain response (SCR), and defines SCR in relations of the degree of supply definition. Chain-visibility, supply-chain-flexibility, and the speed through which changes are detected and responded [6].

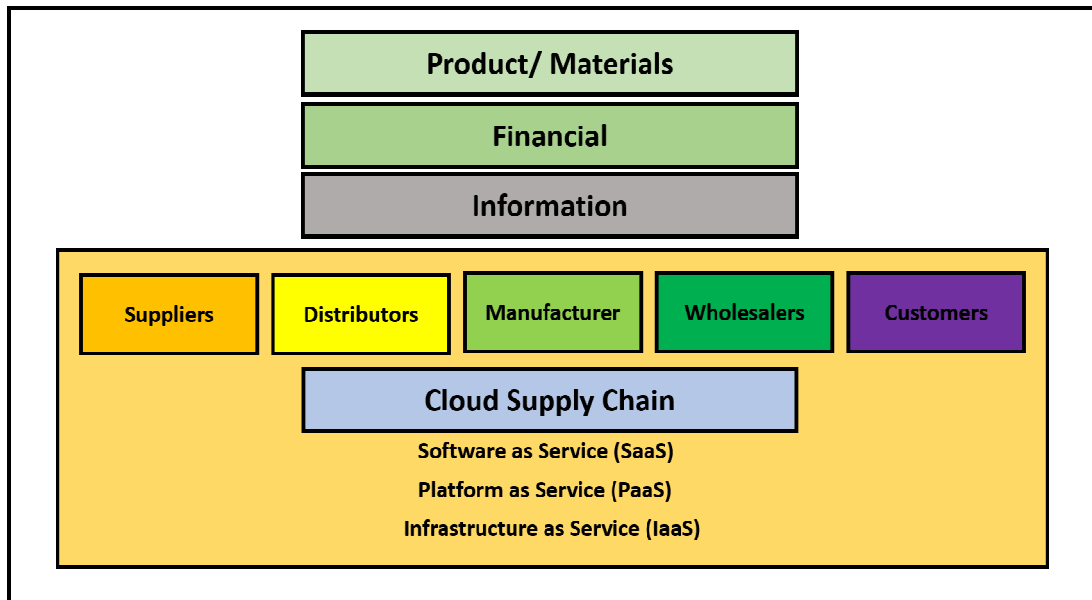


Figure 1: Illustrated the Different phases of Cloud Supply Chain Management.

In this paper, the author also provides a summary of the literary narrative expanded on cloud-based-approaches to ensuring service events, highlights the critical discrepancy between C-SCM and traditional supply chain information management systems, and suggests. Presents the architecture of. SCM system uses full-blown modules with a complete explanation of each component to ensure compatibility with other technologies. In this research, the usefulness of the suggested method is explored using two case studies, and the effect on SCR is taken into account [7]. The contribution, extent, and possible future directions of the study are reviewed in the conclusion of the paper.

1.1. Need for Supply Chain Management:

SCMs are more dependent on their suppliers, and procurement touches all aspects of a company, from industry best practices to IT requirements. Distributors are the source of everything a company needs, so they will soon have a huge inventory. There is a constant need to manage distribution networks, information, contracts, and more while maintaining compliance with regulations. Organizations need to have an SCM system, as shown in Figure 2, to build successful supply chain management processes to get the best bang for their buck by analyzing the cost, risk, and effectiveness of their sources [8].

To gain 360-degree insight into their supplier relationships, they need SCM solutions. Using an appropriate SCM system can help with both of the following tasks:

- Manage evaluation and instructions to maintain continuous supply and prevent interruption of distribution from telecom companies.

- Improving the distribution network to achieve systematic cooperation with suppliers and various business lines.
- Management of corporate expenses to ensure that the acquisition uses the best suppliers and is also cost-effective.
- Risk management and compliance to comply with enterprise and sector-specific laws and regulations.
- Creating a comprehensive one-supplier perspective and formulating meaningful procurement plans.



Figure 2: Illustrated the Work Flow of Supply Chain Management[8].

1.2. Cloud-Based-Supply-Chain-Management:

A new area of research has been created by the new method of applying the cloud computing idea to supply-chain-administration. A cloud supply-chain is made up of two or more parties that are coupled through the distribution of a public cloud, associated data, and payments. To determine the operational specifications for moving supply chain operations to the cloud, as shown in the diagram model in Figure 3.

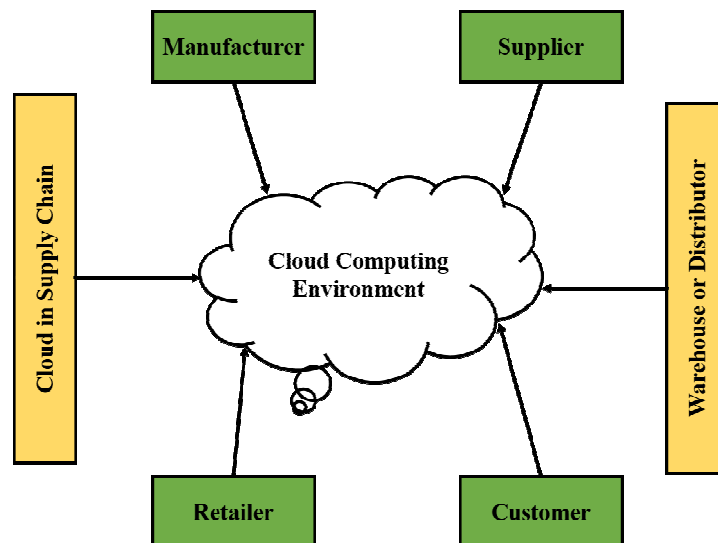


Figure 3: Illustrated the Block Diagram of Cloud-based Supply Chain Management.

The cloud lifecycle, a development lifecycle consisting of several phases that enable the change process to be repeatedly evaluated and improved, can be used to complete that change process. However, before doing so, businesses should examine all the pros and cons of implementing cloud-technology in their supply-chain [9]. Formerly implementing the important option to move to the cloud, the stakeholders in the supply chain should make all their inquiries about the changes, benefits, and potential difficulties in using the cloud addressed.

1.3.Cloud Computing in Supply Chain Activities:

This section describes how cloud technology is being employed for various supply chain functions. More specifically, it seems that the largest specialized tasks to which cloud computing can be applied include forecasting and planning, supply planning, logistics, as well as service and replacement parts management [10].

i. Forecasting and Planning:

Cloud-based technologies are created to help businesses increase their service levels by bringing together key players in the supply-chain, such as retailers, providers, and intermediaries that are critical to customer spending [11].

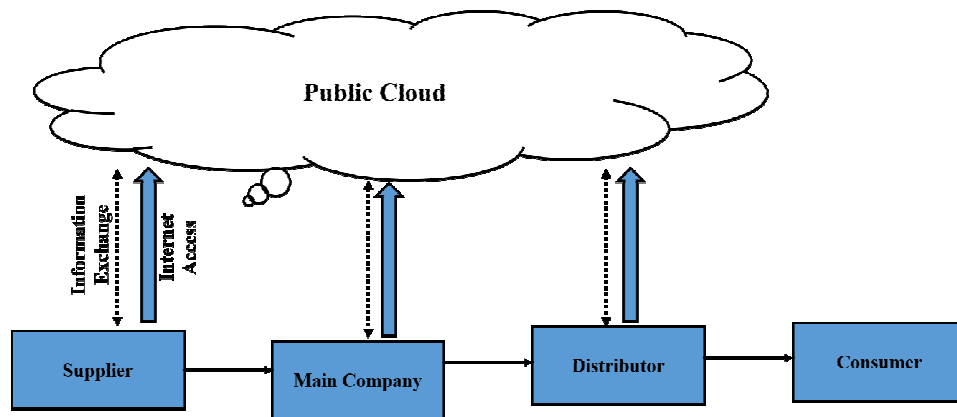


Figure 4: Illustrated the Integration of Supply Chain Processes.

These systems can collect Internet shopping data, run simple analyses, and make an extremely accurate quantitative request estimate per supply chain member. Through such technology, the bullwhip effect, typically distorting information between supply chain stages, can be significantly reduced, enabling all stakeholders to recognize the actual demand volatility that they must regulate. Demand and order management cloud solutions integrate forecast execution and "electronic-data-interchange" (EDI) software into a single multi-party platform [12]. Figure 4 shows how producers store information in the public cloud when customers create demand, bringing that information to the entire production process at once.

ii. Sourcing and Procurement:

Purchasing operations, supplier selection, and/or procurement, reception, and inspection of incoming resources are all involved in sourcing. In this whole situation, cloud-based technologies can act as a database that maintains various data on different customers, providing significant advantages to organizations that do companies with a range of suppliers. As a result, businesses can choose their products or services based on their ability to produce the right raw materials or industrial raw materials to meet the specifications and deadlines of the finished product. Additionally, cloud-based solutions for creating contracts for businesses and suppliers significantly improve ordering, and procurement operations.

iii. *Logistics:*

Inventory, warehouse, distribution, and logistics can also benefit from cloud computing as it allows various supply chain companies to monitor logistics. Processes such as transaction processing, freight forwarding, route planning for transportation, and international economic compliance must be moved to the cloud. A tightly integrated cloud platform, in particular, offers the benefits of simplified mobility as well as a reduction in pipeline inventory, which can help businesses save savings on annual freight costs. Cloud computing services seem to be critical to the needs of 3PL firms such as itinerary and storage maintenance for multiple customers on a centralized platform, particularly across the logistics industry [13].

iv. *Service and Spare Parts Management:*

Companies today have the option of combining front and reverse logistics as part of a single closed-loop supply management architecture due to cloud computing. Based on the name, RFID (radio-frequency recognition) equipment enables monitoring of the placement and timing of inventory in recent memory of that information in a virtualized environment. All buyers and suppliers will be able to monitor the inventory's journey as a conclusion, from manufacturer to buyer and vice versa. Furthermore, a single cloud-based platform can effectively handle tasks such as technician dispatch, return processing, inventory management for replacement batteries, and warranty authentication [14].

1.4.Benefits of Cloud Supply-Chain-Management:

The primary benefits of cloud-based supply-chain-management are explored, including cost-effectiveness, simplicity, flexibility, visibility, scalability, and sustainability.

i. *Cost Efficiency:*

Systems for cloud computing can indeed be successfully employed in the management of supply chains as the operating firms will greatly benefit from the resulting financial benefits. Unlike the existence of internal enterprise resource planning (ERP) systems, cloud services are supplied by third parties and do not require investment in software or equipment ownership (public cloud). As a result, supply chain management software capital expenditures can be transferred to operating costs while improving a company's cash flow. As indicated, the only prices organizations pay to get cloud-based systems are the activation fee and monthly usage fee, the latter of which changes based on the amount of cloud service used. In addition, businesses can save extra cash by reducing upgrade and maintenance expenses [15].

ii. *Simplification:*

The simplicity that cloud-based programs provide is one of their major advantages. Since each link in the supply network can be accessed using a single platform, there are no technical difficulties, simple connections, or barriers for participants to exchange information promptly within a single supply chain process. Members of this cooperative can join at any time, and they can access the server using only a set of identities and aliases. To adhere to this, all users will be able to leverage workflows and apps directly on the same platform, expediting the time it takes for one participant to react to decisions being made by another. Cloud-based businesses essentially provide information control through a single, centralized information system, ensuring seamless information exchange between supply chain participants [16].

iii. *Flexibility:*

Multiple supply chain applications, from load forecasting to warehouse or distribution and logistics, can be housed on a single cloud-based platform. Furthermore, by official information tools, Buyers and Suppliers may access such Platforms from within their setting or business, regardless of their location. In other words, the use of software applications does not depend on a certain location. This extensive entire network enhances the agility of the supply chain, allowing organizations to enter new markets with unique goods and services much faster [17].

iv. Visibility:

Visibility enables regular communication between the parties involved in the supply-chain. This allows companies to monitor supply-chain processes and address any potential issues or deviations beyond planned. Thus, visibility is a significant problem for 3PL service providers in that it not only enables the e-commerce giant to have a clear understanding of the entire system but also enables such businesses to synchronize their operations and monitor different types of customers also helps.

Real-time view of inventory and shipments becomes possible with cloud-based technologies, which also enhance logistics reporting. These systems, which act as virtual storehouses for items in stream, give businesses the power to plan for product delivery and, if necessary, dynamically based on the current state of the finished device redistribute the list [18].

v. Scalability:

Supply chain stakeholders can more precisely regulate their system efficiencies by using cloud computing. Companies need essential facilities to be able to meet requests from customers in times of strong demand. So, they should have the necessary knowledge for the whole year using this on-premises system to meet the high requirement only for a short period. However, with the advancement of cloud-based technology, businesses can now choose to scale their computational resources in response to changes in demand and automatically modify a company's ability to meet those objectives [19].

vi. Sustainability:

Cloud computing is a growing "green" IT that can help small businesses reduce their impact on the environment, improve the effectiveness of their operations, and reduce their energy expenditure. Many experts, however, are hesitant about the positives of converting to the cloud and believe it is more about outsourcing the resource provider's impact on the environment. Virtualization provided by cloud technology, which significantly improves energy efficiency by exploiting the inherent economies of scale associated with different enterprises sharing cloud infrastructure, could put an end to all this debate.

The author's claim that employing a cloud platform instead of electronic operations significantly reduces CO₂ emissions per user as cloud technology enables different businesses to use the same infrastructure. Indirectly, the use of cloud applications in logistics management can help transform traditional logistics systems into "green".

The originally announced benefit of visibility could allow enterprises to reduce their carbon impact. More specifically, corporations can increase their inventory routes based on moment-to-moment events due to visibility, which will reduce carbon emissions that are harmful to the environment [20].

In this paper, the author discussed the cloud-based supply chain management system and in this paper the author introduces the architecture of the cloud supply chain management

through the block diagram. After that, there is also describe the need of supply chain management and its activities where it uses frequently. After that, the author describes the benefits or cloud-based supply chain management.

2. LITERATURE REVIEW

M. Giannakis et al. illustrated that the integration of cloud theoretical models and the bearing of the cloud on supply-chain performance metrics are currently under investigation. The main objective of this paper is to create an ecosystem for cloud-based-supply-chain-management and examine how it improves-supply-chain response (SCR). Through an in-depth analysis of the literature, the authors of this article examine the benefits that cloud computing can have over the already developed SCM management systems and solutions. The authors first develop a complete architecture for the C-SCM system before conceptualizing SCR in relations of something like supply-chain-visibility, adaptability, and quick finding and rejoinder to changes. When applied to cloud settings, the suggested ecosystem offers a perspective of SCM and related activities. The concept of strengthening SCR using the cloud is addressed in the fashion retailing industry through the use of hypothetical situations based on supply chain integration. The results demonstrate that the suggested approach can improve SCR in all three dimensions. The implications of supply chain practice and the transfer of businesses to cloud supply networks are outlined. The authors underwrite to the body of nonfiction by announcing a wide-ranging C-SCM-system and outlining ways for businesses to improve their SCR. Finally, the author notes that the display, manufacture, and distribution of both possessions and amenities can gradually become a joint-effort of multiple bashes in the supply-chain[21].

S. Shirzad et al. stated that one technology that increases efficiency and lowers costs in businesses is cloud computing, which provides stretchy and simple contact to computational-capabilities. Managing a supply-chain is one of many unrestrained computers mean. By integrating cloud-computing into a green-supply-chain, limitations will be removed and various chain processes will be implemented more quickly. To better compare the concert of the final classification to the earlier classifications and the purpose of this study model and methodology to evaluate the control of cloud-computing on environmentally friendly supply chain management. The results demonstrated the impact of cloud computing on environmentally friendly supply-chain-management and validated the validity of the suggested model. The results also indicated that factors such as “service-cost”, “user-friendly-apps”, sharing and relationship, and self-service have a major impact on how well a green supply chain is managed. By streamlining operations and making processes smart, building a cloud-computing based “green-supply-chain-management” system can enhance arrangement performance equated to outmoded classifications, transforming different sectors and enterprises. Additionally, it can save on expenses and enhance the performance of both small and large businesses [22].

M. Karumanchi et al. embellish that the new SCM system is presence used by many businesses to provide a variety of services to customers. The operational efficiency, reduced transaction costs, quality and customer satisfaction of a supply chain (SC) all suffer from a lack of services. One of the biggest options in supply chain management to address the above issues is cloud computing, which provides a platform, structure, quick-deployment, secure-access, and software solutions for the entire supply-chain. Loss of stored data, passwords, etc. makes the storage of data in cloud-based SCMs dangerous, thus we identified trust as a key issue for financial and operational benefits.

Blockchain is used to effectively record transactions, establish trust between business partners, as well as provide information security, increased visibility, and product traceability. Additionally, the goal of this training is to deepen the consideration of the current research situation and from there identify potential future difficulties. As a result, a study is offered for a blockchain-based approach to trust and security to build a new supply chain architecture in a cloud environment [23].

3. DISCUSSION

The emergence of cloud computing will change the way businesses operate and interact with their business partners. It is reasonable to speculate that this technology will have the same impact as the state-of-the-art capabilities of the Internet. In supply chain management, cloud-based solutions are expanding rapidly, and many companies now use the cloud as their primary sourcing strategy. This report focuses on the post-adoption phase of “cloud-based-supply-chain-management” systems and helps supply-chain executives to analyze and manage the risks associated with cloud-based solutions, as well as evaluate and promote the effectiveness of the cloud. Provides useful advice about the method of delivery. This study makes several important advances in the field of cloud-computing. First, it is one of the first studies to look at supply chain management cloud systems at a later stage of adoption. Organizations face significant difficulties in effectively executing these solutions in the face of uncertainty following the adoption of the cloud as their major source of applications. This study providing important new insights. Second, this study explores the economy and risk management challenges associated with the cloud production process from a decision science perspective, whereas prior studies are either descriptive or employ conceptual models. The pursuit of improved decision-making accuracy and efficiency has shown the approach of decision science to be a successful problem-solving method. The study adds useful information to the insufficient literature and suggests important decision-making frameworks for cloud supply chain technologies.

4. CONCLUSION

A successful cloud deployment depends on effective resource management at the cloud scale, excellent performance segregation, increased consolidation, and elastic use of underlying hardware resources. Existing methods either provide subpar governance mechanisms, have low consolidation ratios, or are insufficiently scalable. We have provided a list of the main constraints and a provisional classification of techniques that may be employed to do so, on a large scale, using cases for sometimes powerful controls. It's based on years of shipping expertise in VMware DRS resource management solutions but based on prototypes to scale it up. We hope that our experience will encourage further exploration in this important area to address these relevant practical difficulties. This study will now apply an experimental approach to assess potential quantitative achievement, such as the reduction in lead-time and production costs that can be achieved using the suggested strategy. In future this study may look at how businesses use cloud-based strategies to reduce the effect on their operations and how amenity benefactors can enhance cloud-level-interconnection to create connected cloud populations.

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CHAPTER 9

AN ANALYTICAL STUDY ON THE ROLE OF PRODUCTION PLANNING AND SCHEDULING IN BUSINESS

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ABSTRACT: *Production planning, often referred to as the total volume of production, is a component of production planning. This process includes any additional actions necessary to meet the company's general objectives of profitability, lead time and customer satisfaction, as stated in the overall business strategy, despite currently achieving expected levels of revenue. Poor production scheduling results in the collapse of the entire cycle, in the end, the customer will not receive the expected item. Industries will fail to provide the product to the consumer within the specified time frame, on budget, and equipped with the required facilities. This study is focuses on production planning to streamline industrial processes to maximize efficiency and reduce or eliminate delays, waste and unforeseen disruptions. It was found that organizations can distribute resources within a particular time frame in the most effective manner by employing production scheduling. Finally, from the purchase of raw materials or intermediary supplies to the delivery of the completed product to the customer, scheduling seeks to maximize the use of time at each stage of the manufacturing process. The scope of a production plan covers things like determining and specifying the purpose of production which will include product descriptions, product codes, numbers, quantities, potential raw material requirements, and more.*

KEYWORDS: *Customer, Demand, Manufacturing, Production Planning, Scheduling.*

1. INTRODUCTION

The overall effective use of resources has long been a priority of production planning and scheduling [1],[2]. Production planning's main goal is to ensure that the process of supplying goods moves smoothly; the simpler your distribution network and rate and extent, the cheaper your costs and the greater your profitability [3],[4]. Among the most crucial elements and gauges of the sustainability of their supply chain seems to be the flow, by far [5],[6]. When production is going smoothly if it is, therefore you're on the correct route [7],[8]. The goal is to ensure that firm resources are regularly used with little downtime, few bottlenecks, and a steady level of production while investing all available assets in the process. Although the term "production planning and scheduling" might be a bit vague, keep in mind that the main objective is the effective utilization of resources [9],[10]. This phrase refers to all facets of operations, including labor-related tasks and the delivery process. Almost all industrial contexts apply this notion, and so many service-oriented organizations employ various production planning strategies [11],[12]. They going to talk about some of the most crucial ideas regarding production planning and scheduling [13],[14]. The method of manufacturing known as production planning guarantees that companies have enough raw materials, labor, and resources to manufacture completed goods on schedule. A complete manufacturing strategy requires precise tracking (Figure 1).

The task of determining an aggregate output level, or production plan, is known as production planning. The process also incorporates any additional actions required to achieve the firm's broad goals for profitability, efficiency, lead times, and satisfaction of customers as stated in

the overall strategic plan, while still achieving currently expected levels of sales. Creating an integrated plan of attack with the production schedule as the operational component is the managerial goal of production planning. The firm's specific objectives should be linked to operations in this production plan, which should also coordinate operations using sales targets, available resources, and monetary budgets. The evaluation of sales expectations and production capabilities, in addition to the incorporation of budgets, financial pro forma documents, and accompanying plans again for material and labor requirements, are all necessary steps in the production planning process. Establishing production rates that will help management fulfill its goal of meeting customer demand is one of the production plan's main objectives.

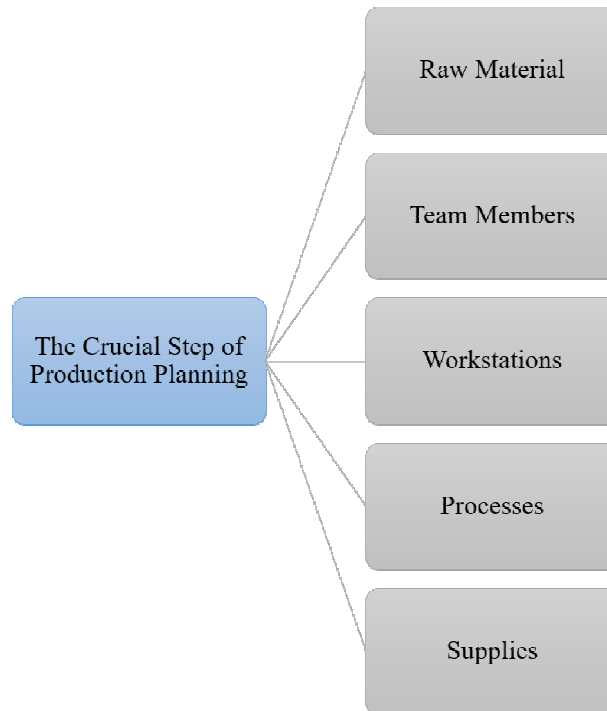


Figure 1: Illustrates the Crucial Step in which Production Planning Initiates.

Although keeping the workforce mostly steady, demand might be satisfied by maintaining, increasing, or decreasing inventories or backlogs. If the company has adopted a just-in-time attitude, the company would use a chase approach, which entails meeting client demand while minimizing inventory. Since the intention is not just to generate a plan again for the supply chain, the term "production planning" is overly restrictive. The plan is often created using data from advertisements and synchronized with the operations of production, engineering, finances, materials, and other firm activities since it has an impact on several business functions. Recently, the phrase sales and operations planning has gained popularity, better describing the issue of coordinating various crucial internal company functions. The strategic perspective on the direction the business intends to go must be interwoven with all of these.

4.1. History of Production Planning:

The first part of the 19th century served as the foundation for contemporary industrial planning. It was born out of a desire for knowledge about internal planning that was under control. To direct the various procedures required in offering their fundamental good or service on a huge scale, organizations like railways, textile mills, and other companies needed internal governance frameworks. Initial production plans were straightforward. Large batch

sizes of a small number of items were manufactured in comparatively small factories. Factory foremen coordinated all planning and scheduling, which occasionally consisted of nothing more than a checklist of production orders as well as the deadline by which they had to be fulfilled. Factory foremen needed technical specialists in their industry. More intricate production planning was required as the manufacturing process and production lines as a whole grew bigger and more sophisticated. Plans started focused on optimizing the procedures needed to fulfill orders around the beginning of the twentieth century, ensuring that the production process circulation would be as even as feasible at the lowest possible cost of production.

The present paper is a study of production planning that identifies the fundamental goals for each of the key functions. The decision should be focused on the optimum trade-offs for the company as a whole, taking into account the firm's financial goals as well as marketing and sales goals, production cost goals, scheduling & inventory goals. This study is divided into several sections, the first of which is an introduction, followed by a review of the literature and suggestions based on previous research. The next section is the discussion and the last section is the conclusion of this paper which is declared and gives the result as well as the future scope.

2. LITERATURE REVIEW

Georgios P. Georgiadis [15] et al. have explained the long lead periods needed for the fermentation/maturation processes of beer distinguish breweries from the rest of the beverage business. The author has taken into account the issue of ideal planning and scheduling of production in brewing plants. With several manufacturing steps, numerous processing units, sharing of resources, stringent design, and operational limitations, and final and intermediate products, the underlying optimization issue is marked by high complexity. To reduce overall manufacturing costs, it presents a novel Mixed-Integer Linear Programming Model (MILP) model that combines a mixed discrete-time description with the immediate precedence architecture. The suggested model routinely delivers better answers, and improvements of up to 50% have been seen. Finally, a Greek brewery offered a real-world case study in which the suggested approach was successfully applied, and in this case study, near-optimal schedules were constructed in a reasonably short amount of CPU time.

Kailash C. B. and Padmakar J. P, [16] have explained that schedule and production planning issues are closely related because scheduling offers the best distribution of resources, while planning makes the best use of those resources to service various clients. A mathematical model created by the author integrates scheduling and production planning issues. The discrete artificial bee colony (DABC) method is used to try to solve this integrated both planning and scheduling challenge. The suggested approach and CPLEX software were used to calculate the outcomes. The findings indicate that the suggested methodology's overall completion time in weeks 1 and 3 is lower than that of CPLEX technology. In conclusion, resolving production planning and scheduling issues jointly is essential to running any manufacturing facility profitably.

According to Jacob Lohmer and Rainer Lasch [17] multi-factory setup, the primary goal must be to identify the (almost) ideal order of jobs, and an acceptable performance indicator must be established. In this contribution, the author reviews 128 publications on multi-factory manufacturing planning and scheduling issues and organizes the literature according to shop setup, network structure, goals, and solution approaches. It was found that a thorough analysis of goal functions and methodology for solving problems (RQ2) revealed that modified versions of conventional scheduling heuristics also worked effectively in the

distributed context. In conclusion, more and more manufacturing companies are creating internal networks that include a variety of geographically separated plants.

Daniel Alejandro Rossit [18] et al. have explained how research into scheduling practices has significantly improved efficiency across a variety of industrial areas. The author has reviewed the key contributions to scheduling in various settings in this paper. It makes a distinction between working on scheduling's fundamental problems and scheduling as an element of production planning operations at a higher level. To properly explain this distinction, an analysis of how CPS might represent the various ISA-95 levels and how this connects to the traditional production planning framework is done. It was found that the primary distinction between Industry 4.0 and its forerunners is that it displays plans for autonomous agents to interact in decentralized architecture rather than the conventional hierarchical and centralized systems. After separating the works wherein scheduling is a part of a higher layer of planning from those that explicitly handle scheduling, the important contributions to this topic are summarized as follows.

The above study shows that the long lead period required for the fermentation/maturation processes of beer differentiates breweries from the rest of the beverage business. And the unpredictable market has caused researchers to study recent multi-factory production planning and scheduling issues. In this study, the author discusses the advantages of production planning software, the need for a scheduling system, and the concepts of production planning and scheduling.

3. DISCUSSION

An updated sales prediction for the subsequent six to 18 months serves as the foundation for production planning. The production plan may be created by adding or subtracting any desired amount from the inventory or backlog levels. The production schedule, though, is not a demand projection. When expressed collectively, it refers to planned production. Exponential time restrictions that specify when the aggregate plan can indeed be updated are often used in an efficient production planning procedure. Additionally, restrictions on the amount of modification could exist. The production process also facilitates constant and open communication between operations and other departments within the company in addition to between operations and senior management. As a result, the production plan has to be expressed in words that are relevant to everyone at the company, not just the operational executive. Some businesses define the production plan as the entire monetary amount of input (monthly, quarterly, etc.). Other businesses could divide the overall output among various factories or significant product lines. Other businesses specify their strategy in terms of the number of units for every product line.

The most important thing in this situation is that the plan is presented in a uniform, widely understood language that is also compatible with other plans. The production plan, which permitted the operational processes to manufacture a specific amount of an item within a given time frame, is where the production schedule originates. A production schedule may be created by a lone production scheduling or even by a line supervisor in a small company as opposed to being created in the production planning division of a major corporation. There are three basic purposes or purposes for production scheduling. The first has to do with deadlines and keeping work from being finished late. The secondary target relates to throughput times; the company wants to reduce the amount of time a job occupies in the system from either the time it is opened until it is closed or finished. Utilizing work centers is the third objective. Businesses often aim to make the most of expensive equipment and staff.

a. *Benefits of a Production Planning Software:*

Planning or scheduling production goals and evaluating the resources needed to achieve them are referred to as production planning. The method that reduces extra costs and increases output performance with less expenditure is timely production planning. The restrictions an entrepreneur must take into account for increased production include labor, equipment, and tooling. The business owner makes raw material purchases based on this strategy. Additionally, it maintains material limits simultaneously at the lowest cost imaginable. The challenge that emerging firms may find challenging is precise production planning and scheduling. But with its simple features, production planning & scheduling may help with hassle-free controls. The following are some of the main advantages of production planning and scheduling software:

i. *Automatic Scheduling:*

One of the biggest benefits of using generation planning software is its ability to include production schedules again for the entire business. The different departments' schedules are perfectly coordinated with one another, which satisfies the basic need to reach the goal. Cross-referencing every aspect of product supply and manufacturing saves a substantial amount of time compared to just using balanced schedules.

ii. *Adaptive Schedules:*

Software for production planning is adept at swiftly and effectively correcting some unwanted and unforeseen situations. Products can be routed to reach customers in areas with high and pressing demand. The product is capable of proposing several options or the most reasonable setup.

iii. *Easy Growth Control and Stimulation:*

The topic of expanding the firm to another place involves a large workforce and millions of dollars in speculation. With both production planning software, it is possible to perform simulations of various development scenarios without breaking the bank. These models produce reliable data that higher authorities and investors use to make presentations that are compelling and persuasive.

iv. *Easy review of data:*

The creation of various reports, invoices, and paperwork is a habit that practically all small and medium size businesses follow. Software for planning and scheduling production automatically gathers, stores, and updates data as needed by the user. With a single click, it is easy to review the history of the information rundown, which makes the dispatching and distribution process straightforward.

v. *Raw Material Purchase Suggestion:*

The cost of components and raw materials is very important to manufacturers. A few manufacturing firms believe they have little influence over the rate at which materials are purchased. Software for production planning allows you to track the pricing of components and materials from different suppliers, which helps you choose the best buy based on market changes. Using production planning software, a shift supervisor may continuously strike a balance between what's beneficial to the company and what's not. Higher-ranking officials or CEOs can effectively handle changes and problems, allowing organizations to focus more on other crucial viewpoints.

b. Requirements for Scheduling Systems:

Scheduling systems must be able to guarantee schedule feasibility for them to be approved by plant management. This necessitates accurate characterization of all significant plant relationships and constraints. Interactive, graphical interface: A scheduling system needs to include an intuitive user interface, such as a Gantt chart, that makes it simple for the user to alter the schedule and assess multiple possibilities. The plant staff typically doesn't need very complex scheduling algorithms, but they do need strong tools to help them and to let them see the results of actions so that the condition in the plant is more visible. Since schedules must be adjusted rapidly and with a great amount of flexibility, the scheduling system must update its data regularly to correctly reflect the current situation.

Integration with business and process systems: In addition, for production orders to be uploaded and reports to be generated, scheduling and production management platforms at the seedling stage need to be interconnected with business-level programs like MRP II systems. You can upload the final product. Data from a task must be transmitted to process control mechanisms when it is launched, thus those systems should also be interconnected. Since current information is a requirement for a scheduling system, integrating the related information technologies has been proven to be one of the most crucial success criteria for production planning and scheduling. The required information includes, among other things, data on products, processes, resources, production needs, and recorded data on processes that are now in motion.

c. Production Planning and Scheduling Concepts:

Planning the creation of final items requires a high-level understanding of the whole process of manufacturing. Planning makes it possible to see the entire procedure, from obtaining resources to creating the final results. The following are some of the most crucial ideas in production planning and scheduling, as seen in Figure 2:

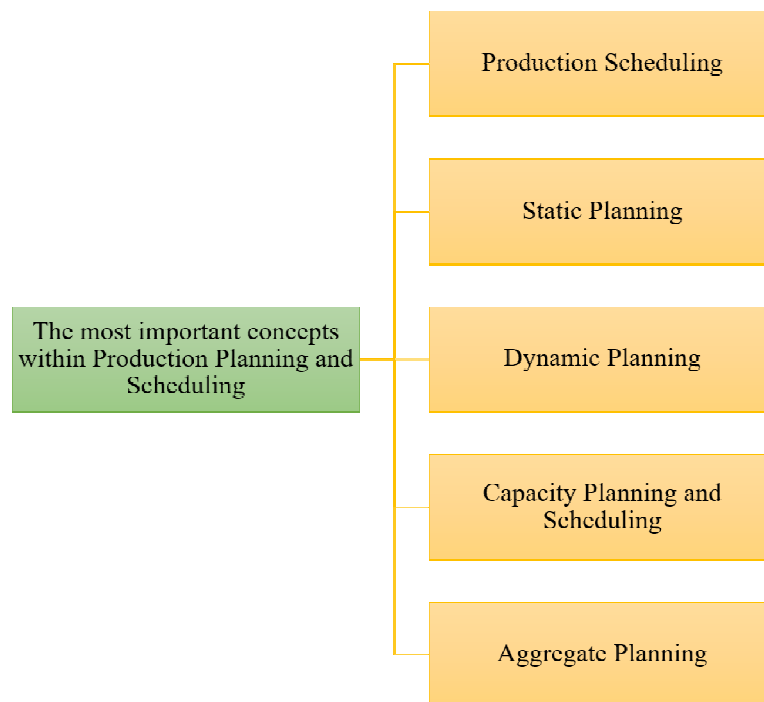


Figure 2: Illustrates the Most Important Concepts within Production Planning and Scheduling Pertain.

i. Production Scheduling:

Production planning is largely focused on resource use, as was previously stated. This phrase refers to all facets of operations, including labor-related tasks and product delivery. One of the key factors to take into account in a manufacturing operation is resource planning and management. Without a sound strategy, you shouldn't move forward.

ii. Static Planning:

Static and dynamic production planning are indeed the two main forms. The premise behind static production planning is that a process's phases can be specified and won't eventually change. Retail apparel is one instance of this when manufacturing volumes are planned up to a calendar year in advance.

iii. Dynamic Planning:

Nothing is planned in the alternative kind of production planning, known as dynamic planning because it is predicted that process stages will alter. A flower store is one instance of dynamic planning in action. While there may be a few combinations on display and available for purchase, their focus is mostly on creating unique arrangements after such an order is made.

iv. Capacity Planning and Scheduling:

The ultimate goal of capacity planning is to maximize an organization's capacity so that it may operate more profitably and efficiently. To reduce downtime by avoiding blockages, basic capacity planning aims to match a company's amount of production to the demands.

v. Aggregate Planning:

Operations management uses aggregate planning as a strategy to meet demand. This could have to do with inventory control, the workforce themselves, or manufacturing. Facilities planning and scheduling choices are quantitatively connected through aggregate planning. This indicates that it generates data to support an operational strategy. By incorporating higher-level projections into lower-level, manufacturing department scheduling, aggregate planning assists in balancing supply and demand whilst reducing costs.

d. Types of Planning in Production:

There are five types of production and planning methods are:

i. Job-Based Planning:

Production that is job-based or project-based concentrates on creating a single commodity and is either managed by a single employee or by a team of employees. Jobs that come under this category of production planning might be small-scale, such as making a piece of jewelry that is specially made for the customer. The construction of bespoke homes is an example of a larger, more complicated manufacturing undertaking that fits into this category. Production scheduling is very simple to carry out for small-scale tasks that just need standard equipment. This makes it possible to produce goods following consumer requirements, and requests may often be added at any point throughout the manufacturing process without impairing it.

ii. Batch Method:

When goods are manufactured in batches as opposed to individually or continuously, batch manufacturing is utilized. For instance, cookies are made in batches, which implies that every

stage of the production process happens simultaneously on the bunch of cookies. To ensure that the entire cookie batch manufacturing process begins and concludes at the same time, you will first measure the materials for the full batch, then combine them, and lastly bake them together. Accounting for the restrictions at each operation stage is an issue that might arise when utilizing batch production planning to make sure that you optimize their available resources without exceeding the maximum allowable. But could have production bottlenecks, for instance, if their dough mixer can accommodate a batch containing 100 cookies but you're able to only bake 300 at once.

iii. Flow Method:

Demand-driven flow industrial production is characterized by a regular stream of units moving through the assembly line. This method is frequently employed in the manufacture of television as well as other home appliances, where the result is created through a multitude of coordinated processes in which materials travel seamlessly from one stage to the next. Manufacturers may reduce the number of finished goods as well as the work-in-process they have on hand, cut costs, and shorten manufacturing lead times by using the flow approach to production.

iv. Mass Production Method:

Mass Production and Flow Production are extremely comparable. When creating several identical goods in a short amount of time, this strategy is quite helpful. Most of the time, this kind of production is mechanized, which lowers the cost of the manpower needed for production. Some manufacturing facilities feature assembly lines that are exclusively used to make a certain kind of product, which decreases the amount of time needed for changeovers and boosts total production productivity. As a result, producers' profits might rise since the cost of manufacturing is drastically decreased. With this approach, operations are planned based on the capability of the available resources and the length of time needed for production at every operation.

v. Process Manufacturing Method:

The continuous flow of raw materials through into the production line distinguishes Process Production from Mass Production as well as Flow Development as a sort of constant process. The completed products made in this kind of production are typically not counted as distinct units. Creating and preparing liquids, gases, or substances, for instance, when the result is created in a standardized and consistent manner. At each stage of the activity, the Process Method processes materials using specialized and advanced equipment. This form of production leaves minimal space for error because it takes a long time to go from one type of product to another. It is also typical for this kind of production to produce trash or by-products.

4. CONCLUSION

For their logistical systems, the majority of process industry businesses currently lack robust, integrated software solutions. This is a consequence of the extremely strict rules that apply to each business. There remains a gap, particularly between enterprise-level strategic planning with process-level real-time systems. To attain maximal integration, new ideas and systems have just lately been devised. These three goals frequently conflict with one another. Although excess capacity speeds up flow and improves performance for due dates, it has a disastrous impact on utilization. Additional projects released to the shop may boost performance in terms of meeting deadlines and utilization rates, but they often lengthen

throughput times. Regarding production scheduling and production planning, there are key distinctions. While scheduling models employ precise information, typically for a single stage or facilities over a limited time horizon, planning models frequently use aggregate data, span numerous phases in a medium-range given timeframe, and attempt to optimize total expenditures. Despite these distinctions, it is frequently necessary for planning and scheduling to be integrated into a single structure, communicate information, and engage in substantial interaction. Today, production planning has altered along with the nature of industrial processes. Operations-related technology has advanced, allowing for more precise coordination as well as monitoring of production. Businesses may now consider more material than ever previously when developing their production strategies.

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CHAPTER 10

REVISITING THE SYSTEM DEVELOPMENT PROCESS AND LIFE CYCLE OF ITS MANAGEMENT

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ABSTRACT: *A conceptual model for project management known as the “Systems Development Life Cycle” (SDLC) offers an in-depth explanation of each stage of an information system development project, from the first phase of a feasibility study through the continuing maintenance of a final application. SDLC may be used with technological and non-technical systems. Through the process of system development, a new software programme or programme is developed, tested, designed, or implemented. This could entail creating custom software internally, creating database systems, or buying third-party software. An efficient SDLC should provide a high-quality system that satisfies or beyond customer expectations, is completed within the projected time or price limits, and successfully develops information technology infrastructure. It should also work well with what is already in place and what is planned. In this paper, the author talks about the life cycle of system development, stages of system development, and benefits of system development. In the future, this paper will aware people about the life cycle of system development and its management.*

KEYWORDS: *Management, System Development Life Cycle, System Design, Software.*

1. INTRODUCTION

Systems development is the idea, creation, testing, or application of a new software programme or application. It entails building database systems, purchasing third-party software, or developing customised systems on an internal level. All information system processing actions must be under the supervision of specified standards and procedures in this system [3]–[5]. The management of the organization must decide on and apply guidelines as well as appropriate system development life cycle procedures to manage the process of creating, purchasing, implementing, or maintaining computer-based information systems as well as other technologies. It is believed that the management or monitoring of the process of creating software would be enhanced by organizing and streamlining the process, standardizing the development process, describing the actions to be taken and the methods to be utilized, and encouraging system development approaches. The employment of a system development approach is frequently assumed to boost system development production and excellence. [1], [2]

1.1. Lifecycle of System Development Management:

The best method for protecting information and information systems, according to management studies, is to include security into every step of the system development process, from the beginning of a project through the design of a system to its disposal. The SDLC is a process that starts with initialization, design, analysis, or implementation and lasts until the system is maintained or eliminated. When creating software or information systems, a system development life cycle stands out for proceeding directly through each stage from beginning to end without pausing at any stage in between. one of the first and most popular systems development models [6], [7].

The SDLC model essentially functions as a project management tool for managing system development projects. The traditional waterfall model or the prototype development spiral model are commonly taken into consideration when discussing system development life cycles. The systems development lifecycle's three main goals are to establish effective project management controls, guarantee the delivery of high-quality systems, or increase labor productivity. To accomplish these objectives, the systems development lifecycle must fulfill several predetermined requirements. These requirements include being able to assist systems and projects of all sizes and types, as well as delivering installation guidance and supporting all management and technical tasks.

1.2. System Development Phases:

A system development project involves several processes, such as a feasibility study, software coding, requirements analysis, software design, debugging and testing, installation, and maintenance. A feasibility study is done to decide whether a project should proceed. This will include a draught project plan and the estimated costs for the next project stages. A feasibility study would examine how various departments could react to or how costly a central ordering system would be in comparison to each of these existing systems, if it were to be implemented. Requirement analysis is used to determine the system's needs. This entails a careful evaluation of the specific problem at hand or the specifications of a certain system. It might be argued that assessment will be consistent with all of the system's intended functions. In order to maximise the benefits of more centralised systems while using their greatest attributes, the research for the central ordering system would thoroughly investigate present ordering systems [8]–[10].

Throughout the design process, it is determined which programs are necessary, how they will interact, how each program will function independently, how the software interface will appear, and what data will be needed. During the system design phase, tools like flowcharts or pseudo-code may be used to construct the system's precise logic. All the specific steps for how orders would be processed and who in the firm would be involved at each level would be included in the design phase for this central ordering system. The implementation process includes the design that needs to be translated into code. To do this, the best programming language must be chosen, and the necessary code must be written. At this point, a specific programming language is effectively used to code the core ordering mechanism. Creating a user interface that the various departments can effectively utilize would also fall under this category.

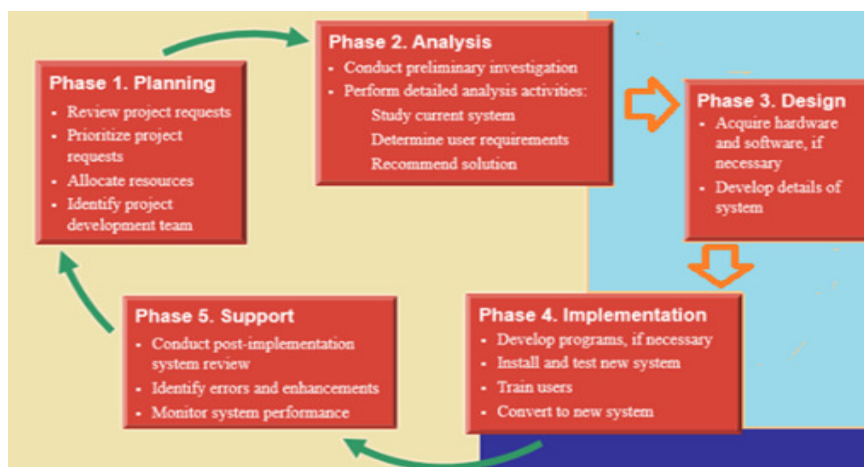


Figure 1: The Steps of the System Development Cycle.

The testing and debugging step include testing both the system as a whole and its components. This involves verifying that the system performs as expected but that the intended platforms are supported. Using a prototype in the early phases of a project may be necessary since it satisfies some of the system's most fundamental criteria but is deficient in many other areas. The central ordering system might be tested in a single department or with a small group of influential people. This enables the identification of necessary changes before their implementation in all departments. The system is put into place during the installation phase to integrate it into the organization's operations. To guarantee that staff members are satisfied with utilizing the system, some training might be required. At this point, the previous method has been replaced in all departments by the central ordering system [11]–[13].

This might involve subtle system modifications or more significant ones brought on by unanticipated events. The ordering procedure can need certain adjustments as the organization as well as its departments grow and change. As a result, it is feasible to maximize the benefits of the new centralized system, as shown in Figure 1.

- Planning's
- Designs
- Analysis
- Implementation
- Support

Information security should be included in any SDLC model used to ensure that the data that the system will afterward transport, process, and store is safely secured. Even though there are many different SDLC models or processes, each is often made up of some unique stages, such as Spiral, Fountain, and fast prototyping. The waterfall model depicts the normal lifespan of a system development project. It employs a top-down development cycle to complete the system, building on the fundamental processes involved in a system development project lifecycle.

1.3. The following are the steps in the waterfall model:

Afterward, flaws are found when a fundamental analysis of the current system is conducted. You may seek advice from system users or the support staff on how to achieve this. The updated system specifications have been established. It is important to explain the current system's flaws in detail and provide concrete reform proposals. Plans are created and distributed for the actual building, as well as for hardware, operating systems, software, connectivity problems, and security difficulties. New hardware and software are bought and installed together with the creation of the new system.

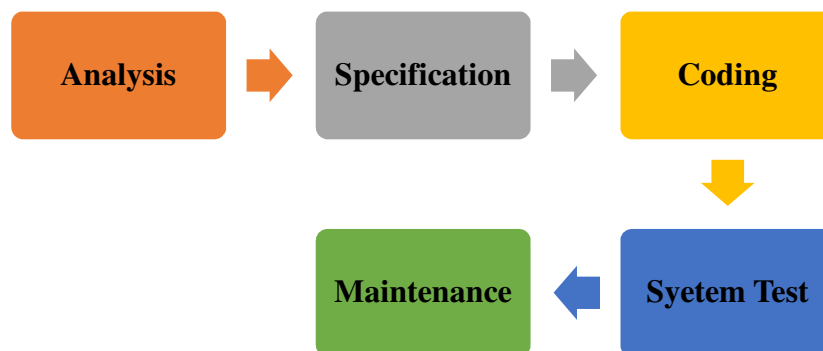


Figure 2: Illustrate the process of model development.

After that, either every area of performance is evaluated or the system's users are taught how to utilize it. The program is employed. There are several methods to do this. Depending on the use or location, the new system may be deployed gradually as the old system is progressively replaced. In certain circumstances, switching to the new system and turning off the old one simultaneously could be more economical [11], [12].

A thorough review of the new system is needed after some time in operation. A regular maintenance schedule must always be followed. Users of the system must be informed of any new policies or adjustments. It is tried to return to the previous step or the particular time when the problem occurred and remedy the problem by repeating the process if system developers discover issues connected to a step that is shown in Figure 2. A logical improvement to the waterfall paradigm is the fountain model. This approach allows software development to go on through several stages even if not all necessary activities have been completed to do so.

1.4. Model for Prototype:

Gathering requirements is the first step in the prototyping paradigm. Together, the software's overarching goals and needs are discussed, together with any known requirements and any areas that require more clarification. The client or end-user assesses the prototype and makes use of its findings to improve the requirements for the next program. Iteration happens when the prototype is altered to meet the wants of the customer, giving the developer the chance to better comprehend what has to be done.

1.5. These are a few of the Model's Key Benefits:

- When a prototype is shown to a user, he is given a full understanding of the software's operation and can make suggestions for improvements.
- It establishes the idea for potential investors to secure project funding and so provides a clear perspective of how the software will react.
- Because potential risks can be identified early and mitigation measures can be adopted, it reduces the likelihood of failure and makes it feasible to effectively eliminate any potential causes.
- A highly positive and conducive environment for the project is provided through iteration between the development team and the client. Coordination exists between the consumer and developer sides.
- Once the SRS is completed, it takes less time to complete the project since the developer is better informed of the ideal course of action.

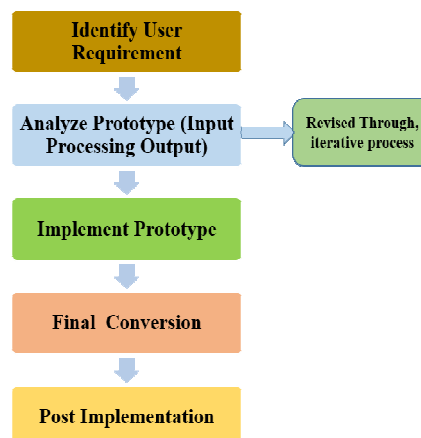


Figure 3: Illustrate the various stages of the prototyping model.

One of the key flaws in this methodology is the fact that prototyping is often carried out at the cost of the developer. As a result, it ought to be finished using fewer resources. Tools for rapid application development may be applied. The initial cost of establishing a development team focused on producing a prototype might be high. After presenting a prototype model to the customer and receiving sufficient specifications, it could be worthless. It is a gradual process, and the author may not always like too much client participation, as shown in Figure 3.

1.6. Application Development Quickly

Because it is built on prototype or iterative development, this technique does not require much planning. The preparation needed to create the product is finished during the software development process itself. Focus groups and workshops are effective methods for capturing user needs, as are early consumer testing of prototypes utilizing an iterative process, recycling older prototype components, quick delivery, or continuous integration. The three primary stages of developing an application quickly are as follows:

1.6.1. Requisites management.

Approach analysis, design, testing, and implementation are all done gradually while developing software using an incremental model. The ability to manage huge projects, the waterfall feature, as well as the prototyping concept are some advantages of this paradigm. The project can be managed more easily since it has been divided up into smaller components, adjustments can be made during the development process, and mistakes are simple to see. The disadvantage of this paradigm is that it takes a long time to fix a problem in one functional unit since it must be fixed in other functional units. It requires thoughtful planning and design [14]–[16].

1.6.2. SDLC's incremental model

The following are a few of the many advantages of including security in the system development life cycle, as shown in Figure 4:

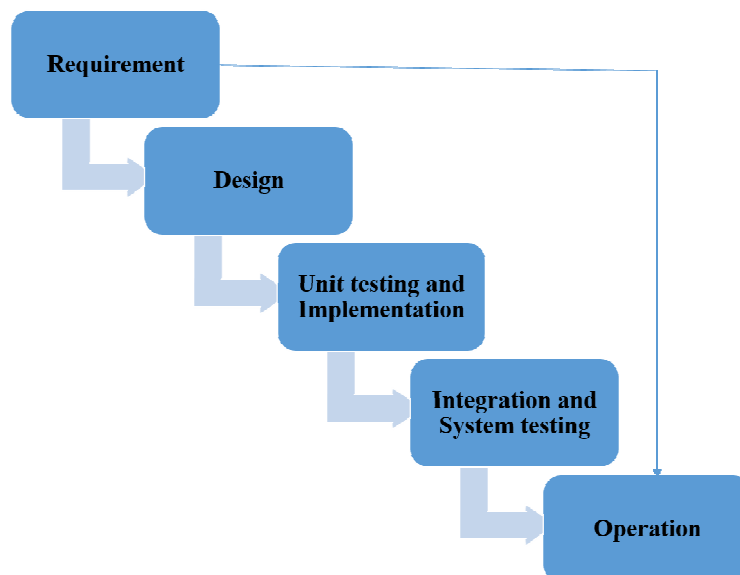


Figure 4: Illustrate the Increment Model of the System development Life cycle.

- Early identification and resolution of security flaws and configuration issues results in cheaper implementation costs for security measures and vulnerability mitigation;

- being aware of any engineering difficulties imposed by mandated security procedures
- By identifying shared security services or reusing security methods and technology, development costs may be reduced while simultaneously enhancing the system's security posture.
- Assistance with well-informed executive decision-making by a quick use of a thorough risk management approach.
- It is necessary to document important security decisions taken throughout the development phase to alert management to security issues at every stage of development.
- Easier system adoption and usage will result from an increased organization or customer trust as well as enhanced confidence in ongoing government system investment.
- Achieving system interoperability as well as system integration that would be challenging if security were taken into account independently at different system levels.

2. LITERATURE REVIEW

Hemant K. Jain and Sandeep Puro studied the important steps of the system development Life cycle (SDLC) to determine the adjustments necessary for developing applications in a distributed environment. The creation of distributed computer systems has become more prevalent as a result of the proliferation of microcomputers and improvements in data transfer technologies. Applications development and design in this setting provide a variety of opportunities and problems. It has been determined that more processes are necessary to collect user needs. To determine how simple it would be to implement the modified versions of the tools used often in logical system design, certain CASE products that are currently on the market are studied [17].

Nasib S. Gill studied Effective software quality management factors. Because it frequently influences software quality traits including software dependability, software testability, or software maintainability, system complexity assessment is essential for monitoring and regulating software quality. As a result, SQA must be handled while taking into account new strategies, tools, methods, and techniques that apply to the software development life cycle. The primary goal of this paper is to revisit and examine odd areas of the software development life cycle that have an impact on the software quality assurance process. The findings of this study might be very beneficial to scholars who are trying to quantify the precise measurement instruments for these software quality features [18].

Majed Al-Mashari and Mohamed Zairi studied BPR and clears up any misunderstandings around its principles, chronicles its development and identifies its primary influences, and examines integration problems with TQM, benchmarking, or change management. This is followed by a strategic overview of BPR implementation, a conceptualization of the key role of IT in BPR, a study of BPR methods, methodologies, techniques, and software tools, and a discussion of the scope of BPR or level of radical innovations as indicators of the degree of change. The consequences of IT-enabled change on organizations are recognized, along with aspects of enhancing business through BPR, before reviewing the evolution of BPR principles and practice both now and in the future [19].

Shreta Sharma and S. K. Pandey studied the complete software produced using the Software Development Life Cycle (SDLC). A project may produce the ideal solution within the allotted schedule and costs with the correct management of the numerous activities coming within the requirements phase. The crucial steps to guarantee the quality of required

information and documents are requirement elicitation, requirement definition, or requirement validation. The first of them is elicitation, which has to be properly attended to by requirement engineers and other relevant stakeholders. Then, with good validation findings, fresh approaches/ ideas might well be proposed to address these issues. This effort may offer the RE professionals useful direction for creating high-quality software [20].

3. DISCUSSION

The gap between the issue domain and the current system is closed during the system design process. The focus of this stage is the world of solutions. In this stage, the functionality of the system is chosen, and the SRS document is turned into a format that can be used to build the system. To accomplish the primary goal, which is shown in Figure 5, the difficult activity of system development is split up into some more manageable sub-activities during this phase.

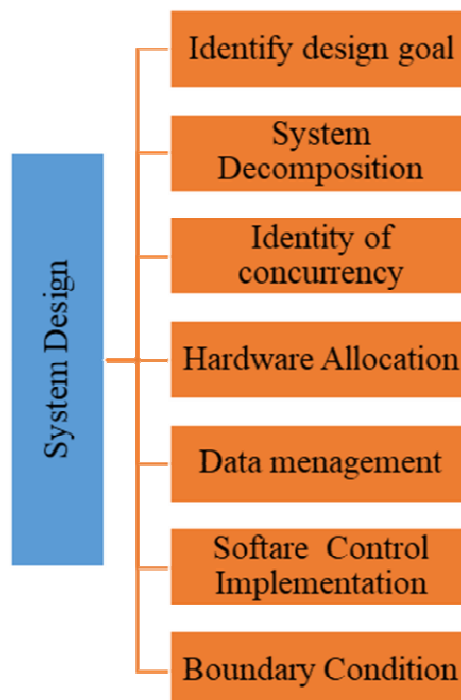


Figure 5: Illustrate the Process of the System Design Life Cycle.

The strengths of this technique have been well examined or tested in system development life cycle methodologies.

- The phases of development are separated by this cycle.
- Makes chores easier to handle.
- It provides the chance for increased control over the development process.
- It offers documentation standards.
- It is superior to trying and failing.

4. CONCLUSION

Project management makes use of the theoretical model known as the systems development life cycle. It described the many stages of developing an information system, from the first feasibility study through the upkeep of the finished application. From the inception of a project to testing and deployment, the system life cycle development (SDLC) process is rigorous and step-by-step. The core phases of analysis, testing, designing, coding, and implementation must all be followed to the letter. Various SDLC ideas are utilized to build

many studies. The author of this paper discusses the phases of system development, the life cycle of system development, and the benefits of system development. Readers will learn from this essay how to handle the system development life cycle in the future.

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CHAPTER 11

AN EXPLORATORY STUDY ON THE CAUSES OF UNNECESSARY WORK AND SOLUTIONS TO PREVENT EMPLOYEES FROM OVERWORKING

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ABSTRACT: *Long-term workers are more susceptible to joint discomfort, heart disease, high blood pressure, weight loss, and fatigue. A heavy workload also affects their attitude and behaviour, which results in diminished desire and difficulty concentrating on present tasks as well as poor mental acuity. People get anxious when they have too much work, which progressively affects how effectively they do their duties. They eventually get exhausted because they believe that their only alternative option is employment. Working nonstop without taking breaks reduces productivity, which has an adverse effect on the business and performance of the firm. This study focuses on the Causes of Unnecessary Work and Solution to Stop Employees from Being Overworked. Overwhelming at work has a bad effect on mood and emotional well-being, which also has a poor effect on work performance. Overworked staff members usually display poor health and have little resistance to the office flu. Reduced employee churn rates, improved performance, and increased revenue for your business may result from managing employee workloads. It is perfectly okay to do duties as quickly and efficiently as you can under certain circumstances.*

KEYWORDS: *Business, Employee, Stress, Workers, Work Overload.*

1. INTRODUCTION

Daily overtimes decrease production, which eventually results in losses for the business. However, many businesses let their workers to labour far into the evening without providing them any further information on the burden or their performance. Due to employment uncertainty, financial hardships, as well as the competitive labour market, employees may be required to take on heavy workloads and make sacrifices. Working long hours is often correlated with commitment and loyalty. Many bosses insist on having their employees stay beyond their bedtimes or change their plans at the last minute. Finally, stress and tiredness result from this. Employees that are under stress might negatively impact your company as a whole [1]–[5]. The workers can lose interest in their work, quarrel, and fight to finish it. Stress at work often has negative side effects including poor attention, insufficient sleep, tiredness, and psychosomatic ailments. Studies throughout the years have shown that workload and weariness are clearly related. Burnout on the work may result in decreased performance, increased blood pressure, and digestive problems. It's crucial to recognise the effect that workload has on workers' productivity. According to the American Institute of Stress, 46% of workers see unmanageable workloads as a major stressor. About 26% of workers report being often or very frequently burnt out at work. A lot of labour leads to stress and worry, which may result in mishaps, injuries, fights, health problems, and subpar performance as a whole (Figure 1).

A heavy task causes stress, which impairs performance and lowers productivity. Employee morale suffers, and there is a higher likelihood that further problems like burnout, absenteeism, and higher turnover rates will arise. As a manager, you want your workers to work harder and do more things more quickly. This isn't always the wisest course of action,

however. Setting deadlines that are continually strict is different from putting pressure on your workers during emergencies. To give workers more time and make them more productive, think about investing in new software and tools.



Figure 1: Representing the Causes of Job Dissatisfaction.

1.1. Employee health is impacted by heavy workloads:

Stress, depression, and worry are all symptoms of a heavy workload. Long-term employees are more likely to have heart disease, weight loss, joint pain, hypertension, and weariness. A heavy workload also affects their attitude and behaviour, which results in diminished desire and difficulty concentrating on present tasks as well as poor mental acuity [6]–[9]. Your staff may get ill as a result of working under stress and having to meet deadlines. It has been shown that these characteristics increase a young person's risk of sadness and anxiety by twofold. Long-term, they could encourage harmful habits like drug or alcohol misuse. Overwhelming workloads raise stress levels, which may then cause cardiovascular problems, headaches, restlessness, irritability, and mood changes.

1.2. Errors are a result of overwork

Studies on nurses and other healthcare workers have shown that heavy workloads increase the risk of medical errors. Doctors who don't get enough sleep are more likely to give the wrong medications due to stress and long work hours. These factors also affect their ability to provide patient counselling and accurate diagnoses. In business, it also happens. The chance of errors and mishaps at work increases as a consequence of fatigue, exhaustion, and stress brought on by excessive workloads. Up to 80% of workplace mishaps, according to the "Harvard Business Review," are brought on by stress. A heavy workload also affects employee engagement. This increases the likelihood of errors by 60% and the risk of workplace accidents by nearly 50%. Disengaged employees care less about the quality of their work and are more likely to make costly mistakes. If they work under pressure, the risks are enhanced.

1.3. Workplace Stress

Stress is a common response to unreasonable demands and feared dangers. From a professional standpoint, it is the discrepancy between workers' requirements and skills and what their employer provides and demands [10], [11]. The American Institute of Stress estimates that 80% of persons experience work-related stress. According to Figure 2, almost 25% of people claim that their work is their biggest source of stress. Imagine you've been working on a project for weeks, and when it's finally finished, your boss demands that you

make all the necessary revisions quickly. Because your coworkers are running behind time, you wind up performing both of their jobs. Everyone on your team is under pressure, and disputes sneak up on you without warning. This is just one instance of a circumstance that might lead to excessive stress. Imagine the situation that comes next. You're commuting back and forth to fulfil your obligations, but your bosses won't grant you a raise or a promotion.

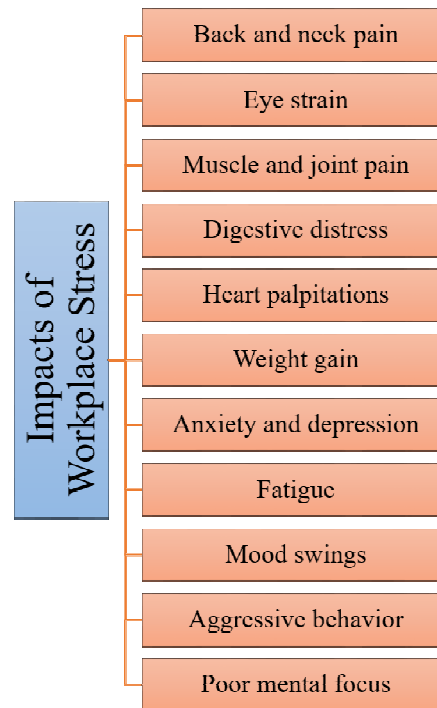


Figure 2: Illustrating the Influences of the Stress on the Workplace.

Maybe for some reason or another, your coworkers are continually making fun of you. Perhaps you get the impression that your boss is always watching you or imposing arbitrary deadlines. These circumstances often occur at work, which causes tension inside the firm.

1.4. Overwork Affect a Company and Employees' Lives:

Working overtime reduces production, which eventually results in a loss for the business. Many workers put in extra time without being reimbursed by their employers or rewarded for it. Many individuals still worry that they won't be able to satisfy their employers' needs on time despite the digital revolution. They neglect their work to complete their tasks due to personal reasons and increased participation in personal life, which is why they are compelled or pushed to quit their work or employment. They get more anxious and depressed as a result of the strain. People get anxious when they have too much work, which progressively affects how effectively they do their duties. They eventually get exhausted because they believe that their only alternative option is employment. Working nonstop without taking breaks reduces productivity, which has an adverse effect on the business and performance of the firm. In the end, the business will have to deal with several workers who ask for or take sick time off or who just perform below par.

Despite popular belief, working overtime will only have a temporary positive impact on the business's total productivity or results. Employees will get worn out from their everyday routines if things like working overtime continue. The goal or motivation of companies is to make money and draw in a growing number of customers. To save expenses, employees often request or work extra, yet this frequently leads to excessive working hours. Additionally, staying up late might be harmful to an employee's health. Daily extra labour by

any employee will impair productivity and eventually result in losses for the business. Rush tasks allow many workers to shine, but it doesn't imply you should waste time by doing it excessively. Rush jobs occur when a corporation fails to clearly prioritise its activities. Even if there are enough employees to do the task, there may still be rush work when there is an abundance of work, particularly in poorly structured businesses where some work is left unfinished. The rush job is the finest technique to learn an employee to see if they are willing to perform under pressure, make choices more quickly, and accept responsibility.

Managing employee workloads may lead to reduced employee churn rates, better performance, and more income for your company. There are instances when you must do tasks as swiftly and effectively as possible, and that is entirely acceptable. Just watch out it doesn't turn into a habit. Try to reduce time-consuming jobs and eliminate tasks with no purpose. Consider outsourcing this work, for instance, if your marketing staff spends hours creating and publishing social media postings. It's an effective technique to provide them more time so they can devote it to tasks that are more crucial, including client acquisition and market research. Depending on your sector, you may be able to automate certain operations and lighten the workload on your workers by investing in more sophisticated equipment.

2. DISCUSSION

Workaholism has a negative impact on employee performance. Even though most businesses have controlled work schedules, the 21st century saw a sharp rise in the number of employees who work beyond normal business hours. Today's workplace has high expectations, and workers are often asked to perform more with less. The digital revolution gave us additional opportunities for success at work and increased daily job completion. However, a lot of individuals still believe they cannot fulfil the demands made by the company. To avoid being driven out of their positions by more productive employees, they sacrifice their personal lives in order to complete their work. However, many managers and independent contractors work without a set timetable. To bring in the money for the whole business, they must work harder than the usual employee. Everyone seems to be working harder today, and tomorrow doesn't seem much more relaxing (Figure 3).



Figure 3: Illustrating the Approaches of the Work Overload [elitemv].

Whatever the cause, workaholism eventually renders individuals incapable of carrying out their tasks. Hard workers ignore their families, making it difficult to get any assistance from wives or children. Other than their employment, which slowly wears them out, they have no other interests. Lack of leisure time and restful sleep results in a lack of the base inspiration needed to get out of bed and go to work each day. Lack of food and sleep are much more important since they jeopardise a workaholic's physical health. Businesses ultimately deal with a workforce of employees who are ill or who just perform below par. Only before the

employee becomes entirely worn out by their habit may working long hours enhance company production. In addition, working longer hours and getting less rest results in reduced productivity, which hurts a company's or business's chances of success. A firm suffers financial losses as a consequence. Because of this, it's critical for businesses to keep track of how long workers spend at the office in order to ensure that they get enough rest so that they can return to work the following day reenergized and ready to brainstorm.

Nowadays, practically every organisation with a presence on the market has an overwork tendency. Businesses want to increase revenue. They must entice more customers. Since they want to keep expenses as low as possible, they often give their staff extended workweeks. However, it also contributes to employee despair and health issues. As a result, a business eventually loses money since less and fewer workers are willing to work in such unfavourable circumstances. The good news is that some businesses are making a concerted effort to reverse this trend. They incorporate the importance of striking a balance between work and personal life in the policies they put into place at their places of employment. As a result, workers have more free time to spend with their friends and family.

2.1. Negative Effects of a Heavy Workload:

Overworked workers suffer significantly as a consequence. Disease, mental health issues, and excruciating stress are possible negative effects. Burnout may result from having insufficient control over an overwhelming workload. Employers may find themselves recruiting, training, and letting go of competent workers frequently [12]–[14].

2.1.1. Stress and Burnout:

According to the American Institute of Stress, 80 percent of managers and workers experience workplace stress. Long hours and a hard workload are the main causes of stress. Other issues brought on by working stress include workplace conflict, staff rivalry, and a general sense of uneasiness. Burnout, which is characterised by the World Health Organization as a kind of chronic work stress that saps energy and reduces effectiveness, may result from a heavy workload and job stress. Burnout is a contributing factor in people quitting their jobs in 50% of cases. Burnout occurs when workers believe they have little control over their job as a result of a heavy workload. As their attitude toward their situation worsens, they psychologically distance themselves from their coworkers. Work is less fun and exhausting when there are long hours and negative attitudes.

2.1.2. Damage to Career

Although it sounds contradictory, a career that has otherwise been successful might be destroyed by job overload. According to Harvard Business Review, when workers have more work than they can realistically do, their performance at work may suffer. The acclaim that comes from working continuously and at breakneck pace may last at first, but gradually that performance level becomes the norm. Quality work must be continually delivered in order to maintain eligibility for merit pay, promotions, and performance evaluations.

2.1.3. Poor Physical Health

Overworked workers often display poor health and weakened resilience to the sickness that is circulating among them. You may not have enough time for hobbies like preparing nutritious meals, working out, or resting if you put in too much effort. Self-care has negative health repercussions on the body. Scientific studies have shown a link between a heavy workload and deteriorating health.

2.1.4. Depression and Anxiety

The severe negative effects of workplace labour overload on mood and mental health can negatively affect job performance. Moodiness may cause problems in relationships with colleagues, supervisors, friends, and family. Overwhelming workload worries exacerbate anxiety and increase your level of job unhappiness. When there are worries about keeping up, especially if the employer discusses quickening the pace, it may lead to low self-esteem and feelings of inadequacy.

2.2. Solution to Stop Employees from Being Overworked:

If overworked workers are starting to be an issue for a company, it's often because the workplace culture doesn't reflect the values and actions it ought to. The true lack of competence is that their principles prevent them from providing their staff with the respectable work-life balance they need. A company that ignores its workers' excessive workload will soon see the detrimental effects.

2.3. Paid Sick Leave Can Actually Help

Paid sick leave might be seen as an extra expense from a company standpoint. Paid sick days aren't only an advantage for workers, however. Businesses may lower presenteeism by allowing their workers to take compensated sick days. Working when unwell is far less effective and increases the risk of an employee spreading the virus. It is completely unethical to put the safety of your whole employees at danger in order to meet your business demands. Additionally, paying for a few employees' sick days throughout the year may end up being significantly less expensive in the long term. A company may run by employing parameters to regulate how its staff can be scheduled by integrating employee scheduling software. You have the option to choose the hours an employee is authorised to work by using our Schedule Xpress application:

- Limiting the number of hours per week that workers may work.
- Allowing for the addition of credentials for each employee, place, and service so that nobody is left out of their element.
- Enables workers to indicate their availability and readiness for employment.
- Minimize any human mistake that might cause an overbooking.

2.4. Employees work More than 40 hours a Week:

2.4.1. Difficulty disconnecting from work

The growth of remote and hybrid workers, according to ADP, is a major factor in longer workweeks. The boundaries between work and personal life may quickly get muddled for workers who work from home, leading them to spend more time on business-related activities than if they worked in an office for a fixed amount of hours.

2.4.2. A rise in pressure

The results of the Indeed study also revealed the causes of people's difficulties in leaving their employment. Nearly 60% of remote workers reported feeling under pressure to put in extra hours from a mix of customers and bosses. On-site survey respondents said that their motivation differed little from that of their remote counterparts, with 43% stating that their pressure was self-imposed.

2.4.3. Demand caused by a lack of personnel

According to CNBC's own study, 50% of workers are employed by businesses with insufficient labour. Existing personnel are compelled to take on tasks across numerous roles as organisations attempt to maintain high performance levels despite manpower shortages. Due to this problem, some employees have put in longer hours to do both their own jobs and those that would ordinarily fall to other team members.

2.5. How workers manage to put in 50 hours a week:

There are only so many hours in a day, yet people are finding ways to jam extra working hours into their calendars in order to keep up with the expectations and strain that their professions may bring. For instance, the research by ADP discovered that workers' attempts to accomplish more throughout the workday had been negatively impacted by lunch breaks. Staff members are giving their employers more time by working through breaks rather than taking an hour away from their workstations for a break.

2.6. Negative effects of a 50-hour work week

Employees may be able to work around the clock, but it does not imply they should or want to. Here are some of the ways that excessive overtime hours are impacting workers, in addition to having a significant influence on work-life balance.

2.7. Reduced output

Productivity might suffer from overwork. Employees produce less work, frequently of lesser quality, than they would want to. In reality, some employees may clock more hours than necessary simply because they find it difficult to complete even their usual amount of work.

2.8. Enhanced potential for health problems

Working too much may have negative physical and mental effects. Employees may, for instance, find it difficult to wind down and fall asleep after putting in prolonged work hours at full throttle. Lack of sleep may make a person more irritable, raise workplace stress, and make it harder for them to concentrate. Overwork-related stress may also lead to greater levels of cortisol, a hormone that raises the risk of heart disease and stroke. Other individuals who ignore exercise and have poor eating habits may get panic and anxiety episodes or put on weight. Depression may sometimes be a sign of overworked employees.

2.9. Overwork solutions

There are actionable actions organisations may take to assist their workers in working a healthy schedule, despite the fact that understaffing concerns and customer pressure might not go away.

2.10. Assign breaks

Companies may assign employees specific lunch breaks and utilise reputable employee monitoring software to make sure they take them. These technologies may also be used to monitor how much a certain employee is working, allowing managers to identify which team members should be

2.11. Cut down on meetings

The amount of meetings that managers organise for their staff might be restricted. Employee distractions may be reduced by just having meetings that are essential or by consolidating certain sessions. They may use more of their working hours this way to tick things off their

to-do lists. When their shift is over, they may leave their workstations with the knowledge that they worked hard all day.

3. CONCLUSION

Working nonstop without taking breaks reduces productivity, which has an adverse effect on the business and performance of the firm. In the end, the business will have to deal with several workers who ask for or take sick time off or who just perform below par. Despite popular belief, working overtime will only have a temporary positive impact on the business's total productivity or results. Employees will get worn out from their everyday routines if things like working overtime continue. According to company cycles, plan the workload in advance. For instance, a product launch or sales event needs careful preparation and hard workdays. It is better to plan ahead as a manager than to wait until the last minute. Your staff will be able to work more leisurely, produce better outcomes, and foresee possible problems before they arise. Encourage group projects, workshops, and other social events as well. These gatherings foster staff bonding and stress reduction. When a member of your staff exhibits indications of stress or exhaustion, pair him up with another worker. Encourage them to work together and divide their tasks equally.

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CHAPTER 12

A COMPREHENSIVE STUDY ON THE PROBLEMS FACED BY START-UPS AND THE BENEFITS OF WORKING FOR STARTUPS

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ABSTRACT: *A startup is a company that is just getting off the ground. One or more company owners start startups when they want to provide a product or service they believe there is a demand for. Startups may use seed money to support their planning and research costs for their businesses. Working with startups may also be more fulfilling since innovation is encouraged and management trusts great employees to run with ideas unrestrained. This study focuses on the challenges faced by startups and the advantages of working for them. Startups have a propensity to be more relaxed, fostering a more social workplace with more frequent employee interaction, flexible scheduling, and flexibility. Additionally, startups often provide better employee benefits. Startups must be tenacious and focus on maintaining their integrity in the face of all challenges if they want to combat and defeat the alleged issues of a hostile business climate.*

KEYWORDS: *Business, Company, Funding, Startups, Workplace.*

1. INTRIDUCTION

Within the first several years, many companies fail. This first phase is crucial for that reason. Entrepreneurs must get funding, develop a company model and business strategy, appoint key employees, iron out complex elements like stock holdings for partners and investors, and make long-term plans. Microsoft, Apple as well as Meta, previously Facebook, to mention a few, were all startups before becoming some of today's most prosperous businesses. Startup refers to a business that is just getting started [1]–[4]. One or more company owners start startups when they want to provide a product or service they believe there is a demand for. These companies often have high launch costs and little revenue, therefore they look for financing from a variety of sources, including venture capitalists.

- A startup is a business that is just getting started.
- Founders often provide funding for their firms and may make attempts to get outside financing before they take off.
- Loans, crowdsourcing, venture capitalists, and family and friends are a few examples of financing sources.
- Startups must also think about their legal structure and the location of their operations.
- Although there is a substantial danger of failure, startups may also be very unique workplaces with amazing benefits.

Startups are businesses or endeavors that are concentrated on a certain item or service that the founders seek to sell [5]–[8]. These companies often lack a complete business strategy and, more critically, enough cash to go to the next stage of growth. The bulk of these companies' founders give the first capital. Many business owners turn to their friends, family, as well as venture capitalists for extra funding. It is generally known that Silicon Valley is home to a strong venture capitalist community and that it is a popular destination for business owners,

but it is also considered as the sector with the greatest expectations [9]–[12]. Startups might utilise seed money to finance their company planning and research expenditures. While a thorough business plan details the vision, company's mission statement, and objectives, as well as management and marketing strategies, market research assists in determining the demand for a product or service. For new businesses, the first few years are crucial. Entrepreneurs should utilise this period to focus on funding and business model development (Figure 1).

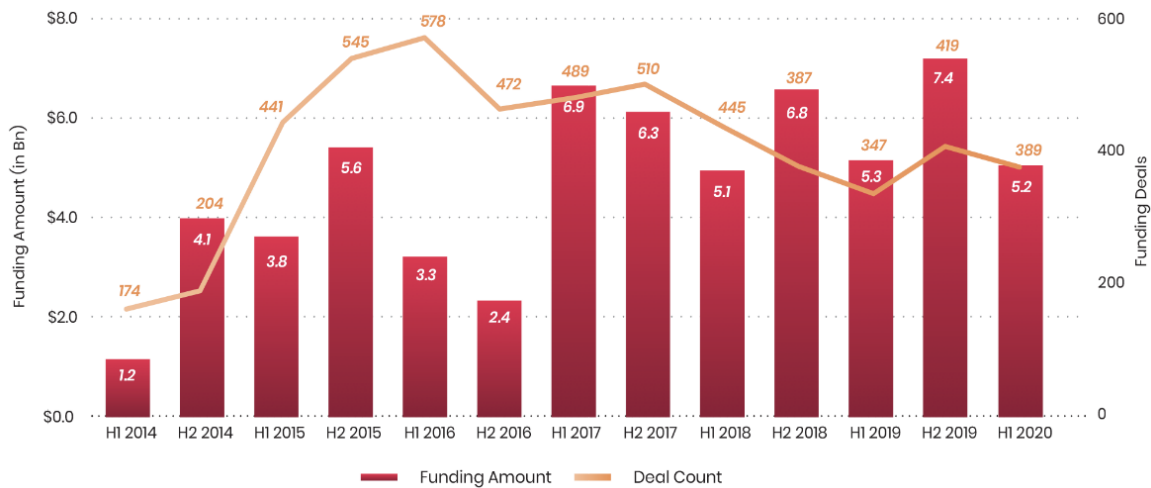


Figure 1: Illustrating the Funding of Startups in India During the Year 2014 to 2020 [datalab].

1.1. Specific Considerations:

As they seek to establish and launch their businesses, entrepreneurs must take into account a range of different factors. Below are a few of the most prevalent ones:

- Location

Any business may be affected by geographic variables. And it's often one of the most important considerations for someone just starting out in business. Startups have to decide whether to operate their business offline, online, in an office, or from home. The location is decided by the products or services being offered.

- Legal Framework

New businesses should consider what kind of legal framework will work best for them. For a founder who is also the main employee of the business, a sole proprietorship is acceptable. Partnerships are a good legal structure for businesses with several owners who share ownership and are also quite simple to create. Creating a limited liability company for a startup might reduce personal liability (LLC).

- Funding

Startups often raise money via their own networks or through venture capitalists. A collection of seasoned investors who specialise in assisting startups make up this group. Nowadays, a lot of people think that crowdfunding is a practical way to receive the money they need to grow their enterprises. The company owner sets up an online platform for crowdfunding where supporters may make financial contributions. Startups may utilise credit to launch their businesses.

1.2. Launch a Startup Business:

The first step in starting a business is coming up with a brilliant idea. The next step is market research, which will enable you to evaluate the feasibility of your concept and determine how the market is presently reacting to it. Writing a business plan that details your organization's structure, objectives, goals, purpose, and values is the next stage after doing market research. Obtaining funding is one of the most important procedures. This might come from savings, investments, loans, friends, or family. After receiving financing, be sure you've completed all the required legal and paperwork steps. This comprises opening a business account and obtaining any required permits or licences. After that, establish a company location. Then, create an advertising plan to draw in customers, cultivate a clientele, and adapt as your business grows.

1.3. Work for a Startup

The benefits of working at a startup include increased learning opportunities, more responsibility, flexible work hours, a relaxed work environment, enhanced employee engagement, alluring workplace incentives, and innovation. Numerous challenges face growing businesses. As a company grows, new problems and opportunities present themselves, needing new solutions; what worked last year may not be the best course of action today. Mistakes all too often threaten to derail businesses that might have been prosperous [13], [14]. You must be aware of and skilled at avoiding the common expansion traps if you want your business to grow and succeed. You must be careful that the things you do today don't lead to greater problems along the road. Making the most of your opportunities can help you achieve sustainable, long-term development. You must fully commit to your goal, even if it forces you to step outside of your comfort zone. This could include making difficult decisions, such as firing employees or shifting your business away from suppliers you've grown to know well. However, if you're not prepared to do this, your business might have a significant competitive disadvantage.

2. DISCUSSION

The benefits of working for a startup are many. There are two, more responsibilities and learning chances. Startups tend to have fewer workers than big, well-established businesses, so employees take on several responsibilities and wear many hats, which increases responsibility and presents learning opportunities. Startups often have more relaxed work cultures with flexible schedules, more employee interaction, and flexibility. Additionally to free lunches, startups often provide better employee benefits including child care facilities and shortened workweeks. Working with startups may also be more fulfilling since innovation is encouraged and management trusts great employees to run with ideas unrestrained. An essential disadvantage of a startup is elevated risk. This mostly has to do with the longevity and success of a company (Figure 2).

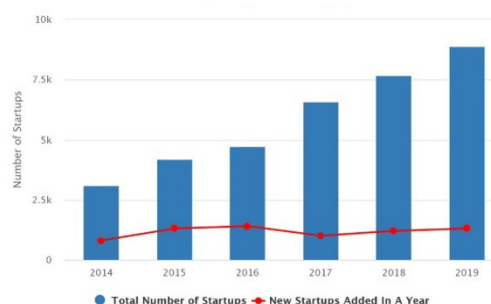


Figure 2: Illustrating the Total Number of Startups Added in a Year from 2014 to 2019 [dazeinfo].

New businesses first need to establish themselves and obtain capital before turning a profit. Maintaining investors' satisfaction with the startup's progress is essential. A business might eventually have to shut down or run out of cash before turning a profit. Startups are known for their long hours since everyone is focused on making the company successful. This may result in stressful situations and sometimes pay that is insufficient for the number of hours put in. Due to the fact that there are often other companies working on the same concept, competition is also usually fierce.



Figure 3: Representing the Pro and Cons of Working for Startups.

2.1. Most Common Challenges Faced By Startups

2.1.1. Strong Competition

The corporate environment is really cutthroat. The giants are always at odds with one another. Competition is one of the main factors preventing new businesses from surviving. And if your online business is just getting started, the competition becomes tougher. Entrepreneurs stay on their toes in a competitive environment because there is no space for error. Businesses that participate in B2B and B2C transactions often feel the heat of fierce competition. If startups wish to succeed in this competitive business environment, which encompasses both traditional and online businesses, they must play aggressively as well as punch above their weight to get the much-needed reputation among the clusters of constantly competing and expanding companies (Figure 3).

2.2. Unfounded expectations

Success does not come about on its own. It causes expectations to rise. These expectations may seem reasonable, but they are only unrealistic in the genuine sense of the word. For startup businesses, the same principle holds true. Problems might occur when startups have "unrealistic expectations" after a tremendous success. Remember that achievement is

transient and that dreams never end. Startups are required to convey the genuine expectations in this situation. Being sustainable is the goal. Furthermore, sustainability requires constant work.

2.3.Choosing the Right Candidates

One of the most important factors in developing organisational culture in a new company is the team's synergy. People with complementary abilities and objectives form teams. In order to build a highly productive team culture, organisations in general and startups in particular need to hire the appropriate individuals. There is a big pool of potential candidates. Selecting a candidate who is suitable for the role is a challenging task. It is one of the key issues new businesses face in the present digital world. When choosing a suitable candidate, organisations must have the following in mind: Like a flock of birds, stick together.

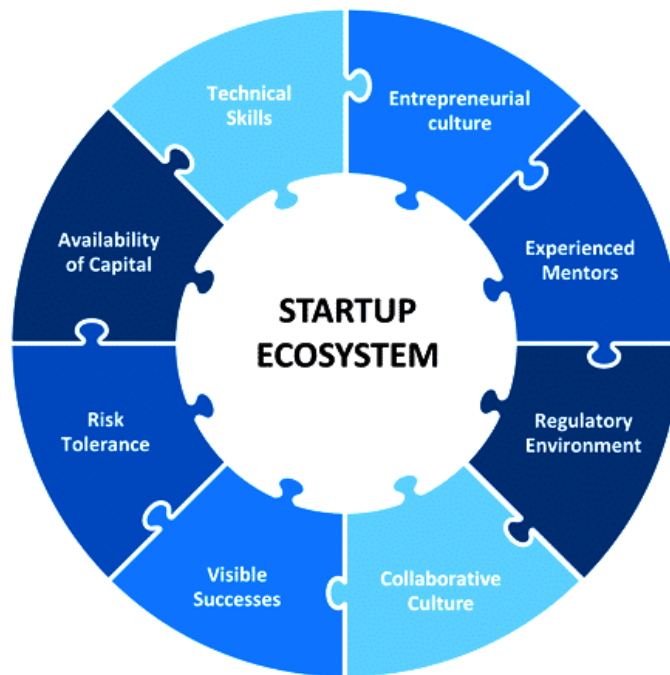


Figure 4: Representing the Startup Ecosystem [drishtiias].

2.4.The Partnership Choice Making

To succeed, collaboration is essential. Additionally, startups may gain from this justification. In the ever-expanding and ever-changing digital world, where companies must battle tooth and nail to survive, startups also struggle to find trustworthy partners. Today, entrepreneurs have a very challenging problem. Additionally, for IT organisations, the stakes in a cooperation are far higher.

2.5.Financial Administration

A money cycle exists. Remember that rising income also means rising costs. I have no doubts about anything. Nowadays, one of the biggest issues facing businesses is financial management. Small businesses really rely heavily on the financial assistance of these so-called investors. During times of large cash inflows, small firms, particularly startups, may find it difficult to properly manage their finances and succumb to the pressure. In order to handle this kind of catastrophe, startups must play a safe and cautious hand by keeping all of their cards close to their chests. Seeking guidance from a reliable financial consulting

organisation may be very helpful in managing the financial challenges that today's new businesses are facing.

2.6. Online safety

This is the digital age. To withstand the challenges of this time, small businesses, especially those that operate online, must be very flexible to resist the alleged threats to internet security. Hackers are everywhere, and they will take advantage of any computer system security hole in a new business. The prevalence of cybercrimes has dramatically increased during the last several years. The percentage will increase throughout the next years as well. Startups that operate online are vulnerable to security breaches. They are susceptible to unauthorised access to sensitive startup data, employee records, financial information, and any other data deemed vital for the operation of a digital enterprise.

2.7. Gaining Consumer Trust

The consumer is supreme. And you are 100 percent right. Earning a customer's trust is one of the biggest challenges that businesses, and startups in particular, confront today. If a startup has a sizable, loyal client base, it may flourish and progress to greatness. Customers are the main force behind the success of a company. Due to their ability to use word-of-mouth marketing and their social media presence, IT companies may have an edge over all conventional businesses.

2.2. Business Issue Solving Require

Creating methods to minimise or remove obstacles that are now preventing you from attaining strategic goals is referred to as issue resolution in the business world. These issues are often complex, which results in a difference between your expected results and the actual ones. They may be present in a single team, a single operational method, or across your whole company, and they often lack an immediate or apparent solution. Building trustworthy processes that enable assessment, solution discovery, execution prioritisation, and success evaluation is essential for issue solving effectiveness. In many ways, it should be similar to how you assess business success via a monthly plan review. You review the same papers once again, look for gaps, dig deeper to identify the cause, and go about your decisions. Without employing this method, you simply cannot expect to address problems successfully or effectively.

2.3. Fixing Problems is Crucial for Company

Even while some think it comes naturally, problem-solving is a skill that you may learn through time. Your team will gain from your problem-solving skills as you and they navigate challenging situations and heated arguments. It starts from the top. You, as the CEO or business owner, need to show your team members how to approach problems logically. This will enable you and your team to solve issues more quickly, develop a procedure for doing so, turn challenges into opportunities, and generally retain calm. The best business leaders, however, didn't merely uncover a magic solution to their problems; instead, they developed procedures and used tools to accomplish success. You may do the same. By utilising strategy, you may increase your problem-solving skills and confidently handle any obstacle that arises:

- Identify the issue
- Competition
- business strategy
- market variables
- Team

- Goal congruence
- Perform a SWOT evaluation
- Employ design thinking to find various solutions.
- Carry out consumer outreach and market research
- Request feedback from your mentors and team members.
- Use lean planning to ensure swift execution.
- Create several financial scenario models
- Be mindful of your financial flow
- Employ a framework for decision-making
- Select important metrics to monitor

2.4.Improving one's problem-solving abilities

It's important to keep in mind certain problem-solving abilities you should continue to build as you and your team navigate this process. This method will become more beneficial and productive if you and your team are better able to address challenges. Here are a few crucial abilities to hone.

2.4.1. Emotional quotient

In a crisis or while talking about something you're passionate about, it may be quite simple to react quickly and emotionally. You must put your attention on empathising with people if you want to avoid forming assumptions and letting your emotions rule you. Understanding your own emotional state, managing your emotions, and paying close attention to your team's answers are all necessary for this. The more attentively you can listen, the easier it will be for you to ask for and accept advice that genuinely helps you solve problems.

2.4.2. Research

Jumping directly into a solution might end any chance of your issue being solved. You must do study on the real nature of the issue you are tackling, just as you would when starting a company. Fortunately, you may include research into your issue solution by actively reviewing team operations and financial performance. Asking "What? Where? When? How?" by itself might lead to more thorough investigations of possible problems. The most effective thing you can do to improve your research skills is to foster and cultivate curiosity. Consider every obstacle as a chance. Something that could be problematic right now, but merits investigation and proper resolution. The more you're willing to investigate, the more you'll learn about best practises, practical tools, and how to improve your own research approach.

2.4.3. Brainstorming

It takes a certain level of skill to brainstorm creatively with your team. Everything must be thrown against the wall, and it must be assumed that nothing is a poor idea at first. Collaboration in this manner promotes involvement without concern about disapproval. Additionally, it aids in outlining possible outside-the-scope alternatives that you may hone and put into workable action. Work on deconstructing issues and make an effort to give everyone a voice. The possibility of discovering the ideal answer increases with the amount of input you permit.

2.4.4. Decisiveness

Being unsure about what to do first might delay taking action on a possible solution. If you are unwilling to make clear what the final deadline for consideration is, you won't be able to move forward swiftly enough. This is where having a procedure for fixing problems is useful

since it specifies when you should start acting. Work on selecting decision-makers, pinpoint desired outcomes, and be ready to assess and modify as needed. Even if you don't need to succeed every time, taking action when it is necessary is nearly more important than never doing so.

2.4.5. Resilience

You must develop resilience to overcome failure. Again, nobody succeeds flawlessly every time. There are so many variables at play to take into account, and occasionally even the most well-planned approach fails. Instead of becoming critical of yourself or your team, try to distance yourself from the issue and keep the idea that it is a puzzle that has to be solved. Every setback is a chance for learning, and it only helps you improve and fix problems with your plan.

2.5.A marketing plan for your company should be created:

Determine WHO is your ideal consumer or target market by identifying all potential markets. Most businesses get 80% of their revenue from 20% of their clients. So it makes sense to focus your time and efforts on your most valuable clients.

- Select the Highest Target Markets:

The goal of this stage is to further select the target markets that have the best chances of success. The goal is to establish your company on an equal footing with the vast majority of the customers you are trying to attract. Understanding your top clients and how to effectively position your business in the market are crucial.

- Determine Your Tools, Strategies, and Methods:

If you can't reach the market, you can't service it. Finding, reaching out to, and educating your core market about your goods and services is the process of marketing. Select a set of tactics and tools that, when used together, will improve your chances of success.

- Test your marketing strategy and tools:

Typically, it's the assumptions that we don't check that might lead to troubles for your organisation. Test every business assumption, particularly if you are about to spend a lot of money.

3. CONCLUSION

An innovative company seeks to fix defects in existing products or create whole new categories of products and services, upending long-standing ways of thinking and doing business for entire industries. A business wishes to create a totally unique template. Despite the frequently overstated potential for businesses to transform the world, successful entrepreneurs may have a significant positive impact on the globe. Furthermore, even failed businesses continue to have an impact, especially via the lessons learnt for the founders, employees, investors, and other stakeholders. And last, companies have an influence on the founders' own life. The entrepreneur will learn a lot from a startup experience about recognising actual problems, coming up with innovative solutions, analysing markets, and implementing the systems and processes to support these attempts. This helps the entrepreneur build their entrepreneurial mindset, which will allow them to make a difference in other areas of their life even if they decide to work for a more traditional firm in the end. Young professionals' aspirations to work for startups are growing more and more prevalent,

and it's not hard to see why. Working at a startup has various advantages, such as flexible scheduling and the chance to see the inner workings of a developing business.

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CHAPTER 13

ROLE OF BUSINESS PLANS AND BUSINESS DEVELOPMENT IN THE SUCCESS OF ORGANIZATIONS

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ABSTRACT: *A business plan is a crucial tool to help direct your choices, whether you're establishing a new firm or looking at methods to grow an established one. It serves as a success road map, giving you more insight into every facet of your company, from marketing and finances to operations and specifics about your products and services. A business plan is meant to help you clearly express your startup approach. Additionally, it offers information on the actions to be performed, the resources needed to achieve your company objectives, and a schedule of expected outcomes. The success of corporations is the main topic of this research, which focuses on business strategy and company growth. The ideas, projects, and actions that improve a firm may be summed up as business development. An effective business plan is crucial because it enables entrepreneurs and small business owners, as well as their staff, to outline their objectives and monitor their success as their company expands. The primary purpose of a business plan is to help you figure out where you want to go with your business and how going to get there.*

KEYWORDS: *Business, Business Development, Business Plans, Employee, Entrepreneurs.*

1. INTRODUCTION

Business development is the easiest way to describe the thoughts, initiatives, and deeds that go into a company's progress. This includes increasing sales, growing a firm, improving profitability via alliances made through strategic partnerships, and making tactical business decisions. Your startup strategy should be expressed clearly in your company plan. It also provides details on the tasks to be completed, the resources required to meet your company's goals, and a calendar of anticipated results [1]–[4]. A clear, defined, and well-thought-out business plan is an essential first step for establishing a firm for long-term success in an age when more than 50% of small businesses fail in their first year [5]–[7].

- Business development is a wide category of ideas, strategies, and initiatives that management and the owner of a company implement with the goal of enhancing the business.
- Successful business growth has an effect on a company's departments of product development, sales, finance, marketing, manufacturing, accounting, human resources, and vendor management.
- Various goals, including as sales growth, company expansion, the creation of strategic relationships, and enhanced profitability, may all be part of a successful business development strategy. Entrepreneurs should be aware of the company's current revenue sources, competitive developments, and new markets.

1.1. Business Development:

Business expansion involves all departments, including sales, project management, vendor management, marketing, product management, and others. Initiatives for cost-cutting, partnerships, bargaining, and networking are also active. The goals of corporate expansion

act as the driving force behind and unifier of all of these many divisions and operations (Figure 1). For instance, a business could provide a good or practical service that does well in the US or another comparable nation. The business development team assesses the potential for future expansion. It is concluded, after thorough deliberation, research, and analysis, that the product or service may be expanded to a new region, such as Brazil. Best The benefit of business planning is that it makes it easier to explain your company's financial planning to a bank or investors. The top companies offering business plan software right now are PlanGuru, Business Sorter, LivePlan, BizPlan, as well as Enloop are a few examples.



Figure 1. Representing the importance of the Business Plan [process.st]

1.2. *Influences Activity in Business Development:*

There are no standardized techniques or guiding concepts since company growth and operations have such a broad reach. Everything may fall under the category of business development, from looking for new prospects in external markets to implementing improvements in internal corporate processes [8], [9]. Business development professionals must come up with original ideas, however their suggestions may turn out to be impractical or impossible. Flexibility is essential. Business development employees should make an effort to seek out and accept constructive feedback and keep in mind that it is a process.

1.3. *Development of Business Ethics:*

Implementing ethical business practises requires thinking through matters including corporate governance, insider trading, bribery, discrimination, corporate social responsibility, and fiduciary duties. Business ethical standards are often established by laws and regulations, which businesses may choose to abide by and improve upon in order to gain the confidence and loyalty of customers and other market players. Even though it may be challenging to describe business growth succinctly, by employing a functional notion, it is simple to comprehend. Successful company growth requires a variety of talents, including an open mentality, the capacity to tolerate setbacks, and the desire to conduct an honest and realistic self-evaluation. The outcomes matter more than the inspiration, implementation, and execution of a company growth idea. To get the finest outcomes, the smartest brains in company growth should be prepared to adapt to a change. Every clearance or rejection serves as a teaching opportunity that better equips these experts for the next challenge.

1.4. Business Strategy Contain:

1.4.1. Subtitle for a business plan

A fascinating title and subtitle are the foundation of every successful company strategy. Although the subtitle might assist summaries your company's history in a single brief line, you'll still want to make it apparent that the document is, in fact, a business plan [10]–[12].

1.4.2. Executive Summary

Despite the fact that you will write the final portion of the business plan, stakeholders will read this section first possibly the only piece. A business plan's executive summary establishes the overall tone for the body of the document. It covers the value proposition, long-term objectives, and mission or vision statement for your business.

1.4.3. The Business Description

Your firm name, years of operation, core products or services, and positioning statement are all included in this succinct section of your business plan. You might even include the company's mission statement or a succinct history. The purpose of the company description in a business plan is to provide the reader a clear and convincing overview of your firm.

1.4.4. The Business Chance

Investors should be persuaded by the business prospect that your firm is the only one that can really address the demands of the market. This section describes the unique issues your company addresses in the market and how it does so. It will include both your value proposition and some general data about your target audience.

1.4.5. Market Analysis

There are several players in the market in almost every sector of the economy. You still have competition even if your company has the majority of the market share in your sector or if your business idea is the first of its type. You will examine the industry landscape objectively in the competition analysis section to see how your firm fits into it. An structured method to structure this part is using a SWOT analysis.

1.4.6. Target Market

Who are your company's main clients and why? Your company plan's target market section goes into great depth about this. The target market should describe the geographic location, demographics, psychographics, and behavioural characteristics of the ideal client.

1.4.7. Marketing Strategy

Although it may be tempting to discuss every sort of marketing there is, a quick overview of how you'll promote your special selling proposition to your target market, followed by a tactical strategy, will do. Start by thinking generally and then focus in: Will you put your efforts into a long-term strategy that involves an upfront investment in organic customer growth? Or do you plan to use a pay-to-play marketing approach to quickly attract a large number of customers? Your company plan's marketing strategy should be based on this sort of data.

1.4.8. Financial Summary

Even the most digital, sustainable enterprises must cover costs since money doesn't grow on trees. This part will be supported by a financial description of your company's present

financial situation and desired future state. Include any financial data that can provide a window into your company's financial situation for possible investors. All of the following are fair game: assets, liabilities, costs, debt, investments, income, and more.

1.4.9. Financial Conditions:

Remember that one of a business plan's objectives is to get investor investment, therefore you should mention financial demands you'd want them to meet. The number, justifications, and duration of this section's requirements will depend on your company.

1.5. Different Business Plans

Since there are many different kinds of firms on the market today, there isn't a single business plan that works for everyone. Every sort of organisation, from start-ups with a single founder to established household brands that must remain competitive, need a business plan that is specific to its requirements [1], [4], [13]. The most typical forms of company plans are shown below. Here is a summary of a few basic categories of business plans:

- Start-up strategy

This is a record of a new business establishment's plans, structure, and objections, as the name implies. It includes information about the firm's intended goods and services, personnel management, and market research for those products and services. A thorough financial worksheet is often also included with this document so that investors may assess the feasibility of the new company setup.

- Plan for feasibility

A feasibility plan assesses the potential consumers of the goods or services that a business plans to provide. Additionally, it predicts whether an endeavour will be profitable or unsuccessful. Forecasting a product's market performance, the time it will take to produce results, and the return on investment it will provide is helpful.

- Expansion Plan

A corporation often develops this kind of plan when it decides to grow in terms of output or structure. It outlines the core procedures and principles for either internal or external development. Analysis of operations such as resource allocation for higher output, financial investments, hiring of more employees, and other activities is beneficial to the company.

- Operational Plan

An annual plan is another name for an operational plan. This describes the ongoing tactics and actions a company must use in order to achieve its goals. For the overall performance of the business, it describes the duties and tasks of the management body, the different departments, and the staff members.

- The strategic plan

which is a component of the institutions' fundamental principles, addresses the internal business plans of the corporation. With the use of a SWOT analysis, the strengths, weaknesses, opportunities, and threats may be classified and assessed in order to create strategies for maximising profitability.

2. DISCUSSION

The business plan, as opposed to the brief or lean versions that have been covered so far, is a formal document used for long-term planning of a company's activities. Typically, it includes a firm summary, history information, and financial statistics. Investors nearly always ask for a documented business plan since it is crucial to their choice of whether or not to invest in a company. Despite the reality that nothing in business is permanent, a business plan sometimes has more "cast in stone" elements than a business model canvas. A business model canvas is more usually used as the first planning step and in the beginning stages of a new company. In addition to evaluations of the business and industry, market strategies, sales potential, and competitors, a business plan is likely to contain the company's long-term goals and objectives. An thorough formal business plan would follow several revisions to the business model canvas. Banks and other investors generally need the business plan in order to get financing, and it typically forecasts financial data over a three-year period. The business plan serves as a guide for the organisation across a number of years (Figure 2).



Figure 2: Representing the Strategic Business Planning.

2.1. *Purpose of a Business Plan and Its Importance:*

2.2. *To demonstrate your commitment to company*

A thorough business plan is necessary to prove to all parties involved staff, partners, investors, and yourself—that you are committed to expanding the firm [14]–[16]. As you establish your strategy, you are compelled to think about and choose the techniques that will accelerate your progress.

2.3. *To set organizational milestones*

The long-term milestones that are most crucial to the success of your company should be clearly outlined in the business plan. A milestone, to paraphrase Guy Kawasaki, is anything

important enough to tell your spouse about when you get home (without boring him or her to death). Would you disclose the changes you made to your spouse? Most likely not. However, you would undoubtedly spread the word when you launched a new website or hit \$1 million in yearly sales.

2.4. *To comprehend your competitors better*

You are compelled to research the competitors when creating the company strategy. Every business faces rivalry from direct or indirect rivals, therefore it's important to know what advantages your business has over the competition. Identify the steps you need to take to acquire any necessary competitive advantages if you don't already have any.

2.5. *To comprehend your clientele better*

Why do individuals make purchases now? If they don't, then why not? A comprehensive customer analysis is necessary for a company to be profitable and for a business plan to be successful. Knowing your target market can help you create better products and services for them and advertise to and promote them more effectively.

2.6. *To articulate unspoken presumptions*

Writing the business strategy itself helps in bringing previously "hidden" assumptions to the surface. You may put them to the test and evaluate their validity by putting them in writing. You could have expected, for instance, that neighbourhood stores would offer your product; in your business strategy, you might evaluate the outcomes in the event that this didn't happen.

2.7. *To determine if your project is feasible*

How promising is this chance? The business plan process acts as a feasibility study for the viability of your endeavour and entails investigating your target market and the competitive environment. Your preparation may in certain situations lead to the decision to postpone the project. Additionally, you can decide to go on with a new project that has a higher chance of succeeding.

2.8. *To keep a record of your income model*

How precisely will your company generate revenue? For both yourself and your investors, you must provide a written response to this important issue. The revenue model's assumptions and problems are addressed in part by the documentation of the model. And after reviewing your strategy, people could offer other sources of income you should take into account.

2.9. *To identify your financial requirements*

Does your company need to raise money? The amount? A business plan may assist you in figuring out just how much cash you need and what you'll do with it. For a firm to successfully raise money and put that cash to use, this procedure is crucial. Additionally, it will provide you the ability to plan ahead, especially if you later need to raise more money.

2.10. *To draw in investment*

Requests for financing are based on formally recorded business plans. The answer to questions from investors such, Is there a demand for this good/service? May be found in the business plan. What financial outcomes are anticipated? What is the business's exit strategy?

Investors will normally want to see you in person before writing you a check, but nearly always they will also thoroughly review your business plan.

2.11. To lessen the chance of seizing the incorrect opportunity

Opportunity expenses are reduced via the business plan creation process. You may evaluate the desirability of this specific opportunity in comparison to other possibilities by writing a business plan. You thus make the wisest choices.

2.12. To compel you to do study and fully comprehend your market

Which trends are most significant in your sector? What are the biggest dangers to your sector? The market is expanding or contracting. How big is the market you're trying to reach with your goods or services? You will obtain a broader, deeper, and more complex knowledge of your market as a result of creating the business plan. Additionally, it will enable you to utilise this information to decide how to increase the success of your business.

2.13. To entice personnel and a management group

A business plan is necessary to recruit and retain top talent. The business plan offers management and employees assurance that the idea is sound and that the organisation is ready to achieve its strategic goals. Importantly, as your firm grows, the bulk of the labour will be performed by your staff and not by you. Consequently, inspiring and coordinating them will be crucial to your success.

2.14. To set goals and direct your efforts

The business strategy offers a road map from which to work and a reference point for guidance when uncertain. Without a company strategy, you could frequently change your short-term plans without thinking about your long-term objectives. Consider your company strategy to be a map, just as you wouldn't go on a lengthy road journey without one.

2.15. To entice romantic partners.

Potential partners also want to see a copy of your business plan to determine if it is beneficial to work with your firm. Since partnerships may take time and money to develop, businesses are more likely to work with your company if they can read an in-depth description of it.

2.16. Positioning your brand

The function that your firm will play in the marketplace may be defined by creating a business strategy. With the help of this description, you may briefly define your company and position your brand in the eyes of clients, partners, and investors. You may decide how to position your brand the most effectively using the industry, consumer, and competitor knowledge you gather throughout the business planning phase.

2.17. To assess your business's success

A written company plan enables you to assess real operational outcomes in comparison to the plan itself. This makes it possible for you to clearly determine if you have met your operational, financial, and strategic objectives (and why you have or have not).

2.18. To adjust your company in response to changing circumstances

For instance, you may rework your business plan to define, test, and verify new ideas and tactics if your present sales and operational models aren't performing well during a challenging economic period.

2.19. To write out your marketing strategy

How are you going to engage your audience? How are you going to keep them there? What does your advertising cost? How much will you ask for? An intelligent marketing plan is essential to a company's growth. It's important to assess your marketing plan at least once a year since your marketing approaches and methods will vary each year.

2.20. To comprehend and anticipate the workforce demands of your business

When your firm plan is complete, you won't be surprised if you end up with a staffing shortage. Instead, your business plan provides a roadmap for your labour needs, ensuring a more seamless expansion. Since it takes time to identify and train outstanding employees, your plan is important in ensuring that your timeline is acceptable. It may also help you understand your staffing needs.

2.2. Benefits of Creating a Business Plan:

A thorough business plan has several advantages that make it an essential component of any corporation since it provides a bird's-eye perspective of the complete framework of an institution. Here are some examples of how a company strategy may provide a significant competitive advantage.

2.2.1. Establishes Goals and Standards

An organization may establish realistic goals and give them a deadline with the aid of careful preparation. Long-term profitability is the outcome of this. It also enables a business to create the standards and Key Performance Indicators (KPIs) required to accomplish its objectives.

2.2.2. Maximizes the Use of Resources

An excellent business plan aids in resource management and organisation for the firm. It explains the effects of activities like setting up additional offices, hiring new employees, changing production, and so forth. Additionally, it aids in the financial impact analysis for the company.

2.2.3. Increases viability

Making ideas actual requires a strategy, which helps a lot. The blueprints of successful organisations often serve as a great resource for start-ups in the early stages and new business owners, even if business plans vary from company to company. Additionally, it aids in the marketing, promotion, and entry into the market of new goods and services by established businesses.

2.2.4. Decision-making Support:

Making decisions is a big part of running a company, from where to pitch to where to locate to what to offer to how much to charge. A well-thought-out business plan gives a company the capacity to prepare for whatever curveballs the future may throw their way. It enables them to generate responses and fixes for these problems far in advance.

2.2.5. Correct Previous Errors:

Businesses may save time, money, and resources by developing strategies that take into account prior defects and failures as well as what worked and what didn't. Businesses have the chance to steer clear of future disasters by using strategies that reflect the lessons learned from the past.

2.2.6. *Brings in Investors:*

A business plan provides investors with a comprehensive understanding of the goals, makeup, and viability of a company. It supports their confidence and promotes investment.

2.3. *Important Components of a Business Plan:*

Before you really get down to develop a strategy for your firm, you must perform some preparatory work. One of them is understanding what goes into a company strategy. The plans and objectives of your company are immediately obvious in an executive summary. Although its importance is sometimes overlooked, it may be quite useful in establishing the readers' initial image of your company. As a result, it may serve to establish investors' and consumers' first perspectives. A complete business description eliminates any potential for ambiguity in your operations. A great business description will outline the company's size, organisational structure, and market position. It also specifies the kinds of goods and services the business provides. It even specifies if the business is young and striving or old and established. The USP of the goods or services is most significantly highlighted in comparison to your market rivals.

A thorough market analysis examines a company's potential for future growth as well as its existing position. This may assist in assessing investments, promotions, marketing, and product distribution. Having a thorough awareness of the market also aids a company in fending off rivals and developing long-term strategies. Similar to a statement of purpose, operations and management enables a business to describe its distinctiveness to readers and consumers. It demonstrates how the company can provide better and more superior items for less money and in a shorter amount of time. The most crucial component of a company plan, the financial plan is largely directed towards sponsors and investors. It necessitates the disclosure of a company's financial strategies and market research. A 5-year financial report is sometimes needed to be included in order to demonstrate prior successes and profits. The financial plan outlines the company's present business plans, prospects for the future, and anticipated overall value.

3. CONCLUSION

Business development is the wide variety of plans, strategies, and initiatives that a company's management and owner follow in an effort to strengthen the business. Among the many objectives that may be incorporated in business development are increased profitability, alliance formation, firm expansion, and increased sales. A business plan is intended to assist you in expressing your startup strategy effectively. Additionally, it offers information on the actions to be performed, the resources needed to achieve your company objectives, and a schedule of expected outcomes. For firms seeking funding to expand and scale, a strong business plan may make all the difference. It persuades potential investors that the business will be successful and offers a realistic assessment of how much profit is anticipated and when it will be realised. A thorough business plan has several advantages that make it an essential component of any corporation since it provides a bird's-eye perspective of the complete framework of an institution. Even though it may be challenging to describe business growth succinctly, by employing a functional notion, it is simple to comprehend. Successful company growth requires a variety of talents, including an open mentality, the capacity to tolerate setbacks, and the desire to conduct an honest and realistic self-evaluation. Typically, businesses write business plans to entice finance or investors; the conclusion should explain how the business makes money and why it is a sensible investment. Companies may design business plans to monitor their progress or set new goals.

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CHAPTER 14

EXPLORATIVE STUDY ON THE EFFECTIVE LEADERSHIP IN HEALTH CARE AND ESSENTIAL SKILLS FOR HEALTHCARE LEADERSHIP

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ABSTRACT: *The term "healthcare management" accurately describes what it is. It is the general administration of a medical institution, such a hospital or clinic. There are several differences between healthcare management and administration. Leaders in the healthcare sector are crucial in ensuring that the members of their team provide patients with high-quality medical treatment. Genuine healthcare leaders don't think of themselves as better than others. Instead, they understand how their organisation functions and appreciate the opinions of all of its members. The study's main focuses include effective leadership in healthcare and crucial leadership competencies. It may use the traits and behaviors of strong leaders at work by learning about leadership in the healthcare industry. Leadership in healthcare is crucial to ensure that each member of the medical team is aware of their responsibilities and collaborates to achieve their objectives. A team in need of improvement may be turned around into a productive one with competent leadership.*

KEYWORDS: *Hospitals, healthcare management, healthcare industry, Leadership, medical, Skills.*

1. INTRODUCTION

There are several differences between healthcare management and healthcare administration. The daily operations of a clinic, department, or institution are managed by a healthcare manager. Healthcare administrators keep an eye on personnel, physicians, and carers while also ensuring that patients are happy with their treatment. On the other side, the healthcare organization's top leadership group consists of administrators. Strategic plans are made by healthcare administrators who also make sure that the organization's objectives and budgets are accomplished and that its healthcare service is continually improved (Figure 1). Typically, those who are interested in any of these jobs must have a degree in healthcare management. Many people have prior experience working as healthcare professionals or caregivers [1]–[4].

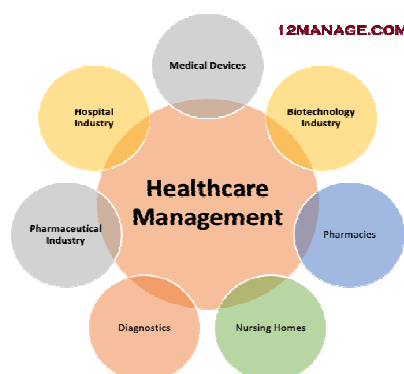


Figure 1: Illustrating the Management of healthcare [12manage].

People who want to work in healthcare management need to have a solid foundation in communication and the life sciences. Success as a healthcare management professional depends on developing positive connections with all stakeholders on the healthcare team, including patients, carers, and providers. Excellent managers inspire their teams, boost productivity, and support the corporate goals. Strong leadership is essential in the healthcare sector since decisions made at the top might have a big impact on whole populations (Figure 2) [3], [5]–[8].



Figure 2: Illustrating the Process of Healthcare Management [IHM].

1.1. Qualities of Effective Healthcare Leaders

- They Guide Other
- People learn from them.
- They demonstrate modesty.
- Others benefit from their opportunities.
- Qualities of Effective Healthcare Leadership

1.2. Leadership in Healthcare:

Health care leadership refers to the use of a member's professional abilities and personal traits to guide their team toward a goal. In the field of health care, leadership may be shown by any team member, regardless of their status as a supervisor. Leadership in the healthcare industry is crucial to ensure that all members of the medical team are aware of their responsibilities and collaborate to achieve their objectives [9]–[11]. To evaluate difficult circumstances and create workable solutions, leaders need abilities like analytical thinking.

1.3. Qualities of Successful Healthcare Leadership

Here are some characteristics and behaviours of efficient healthcare leaders:

1.3.1. Accept mentoring positions

Especially for individuals who are new to the field or their place of employment, leaders often show an interest in mentoring and assisting others. As mentors, leaders work closely with younger team members to help them develop the abilities necessary to succeed in their positions. Being a mentor enables you to support others by modelling desired habits, responding to their inquiries, and encouraging them as they start their new careers [12]–[14].

In order to effectively mentor someone, you must work with your mentee to comprehend their requirements, evaluate their strengths and shortcomings, and build successful communication techniques.

1.3.2. Look for chances to advance your career

Leaders in the healthcare industry have a strong commitment to seeking out possibilities for advancement. Leaders that actively pursue professional development opportunities show initiative and commitment to their professions. Opportunities for professional development may include seminars, conventions, or ongoing education. To access greater options for professional growth, other healthcare professionals could consider joining professional groups. You may demonstrate your dedication to professional excellence and acquire new abilities that will help your team by making time for personal growth.

1.3.3. Increase Chances for Others

In addition to looking for possibilities for your personal growth, consider creating opportunities for others to learn. If you have a formal leadership role, you could provide regular training sessions or other opportunities for professional growth to the people you manage. For instance, holding training sessions once a month encourages team development and guarantees that everyone takes part in professional advancement. Other ways to promote growth include hosting guest lecturers or creating a tuition reimbursement programme for staff members who pursue further education. Giving people a chance demonstrates your want to see the team members develop, learn new skills, and use their strengths in the job.

1.3.4. Put communication first

Good leaders are able to effectively communicate with their teams. In order for others around you to understand your goals and point of view, it is necessary for you to be able to express your ideas and feelings. It also pertains to your ability to recognise the needs, objectives, and attitudes of others around you. To collaborate successfully with their team members, patients, and other professionals within their companies, leaders employ their communication abilities. For instance, as a senior physician, one of your responsibilities may be to coordinate with the administrative staff at your institution. Effective departmental communication makes sure that everyone works to achieve facility objectives.

1.3.5. Keep your ethical standards high

The health care sector needs ethical behaviour. By upholding a high ethical standard, you can be confident that you're taking care of your patients' medical requirements while also safeguarding their wellbeing, the reputation of your institution, and your own professional skills. Ensuring that your institution has the employees it needs to assist its patients may be part of upholding ethics in an administrative capacity. In order to guarantee that their facility complies with all legal requirements, administrators remain current on the most recent industry rules and regulations. Leaders who uphold moral standards will gain the team's respect and trust.

1.3.6. Express your confidence

It's crucial for leaders to project confidence in their abilities. Leaders may feel more secure in their decision-making if they are aware of their abilities and know how to use them. The members of a leader's team may be motivated to emulate them when they have confidence in their talents and commit to utilising them to accomplish objectives at work. Understanding your capabilities and limits is a prerequisite for being confident at work. It enables you to

make judgments, such as when creating practical plans or assigning work to the appropriate team members.

1.3.7. Work on your problem-solving skills

Leaders use their knowledge and expertise to resolve issues at work. Leaders in the healthcare industry make choices that determine the services their institution provides, and they use their analytical abilities to address client health issues. In order to evaluate problems, analyse data, devise strategies, and put answers into practise, leaders employ their problem-solving abilities. While practitioners address issues pertaining to patient care, health care managers address issues like how to manage a budget successfully.

1.3.8. Be kind with others

The ability to show empathy and compassion is a prerequisite for health care leadership. Patients with complex medical problems are a common occurrence for medical practitioners. Effective medical practitioners may meet these patients' emotional needs by showing compassion, since they may experience anxiety, uncertainty, and dissatisfaction with their health. Healthcare professionals that lead with empathy may better meet the needs of both their patients and their team members. Health care executives build enduring connections with folks in their community by being compassionate, which helps their institution reach its objectives.

1.3.9. Manifesting Humility

Genuine healthcare leaders don't think of themselves as better than others. Instead, they are aware of how their group functions and respect the opinions of all its members. By having an honest conversation with them and asking for their input, leaders show their team members that they are respectful of them and understand their limits. Their colleagues repay them by being dependable and polite.

1.3.10. Employing a Mentor

Strong leaders are shaped by good mentors. They act as role models for the workplace culture and share their knowledge and experience with their coworkers. In addition to offering personal counsel to their staff, mentors may have an impact on a student's professional development in the healthcare field. Healthcare leaders make an effort to engage with their mentees, providing them with guidance, connecting them to resources, and helping them to define their career goals.

1.3.11. Intelligence in Emotions

Emotional intelligence, or "EQ," is the ability to understand one's own emotions as well as those of others and behave in a healthy way. To set the tone for the whole team, a leader with a high EQ demonstrates empathy, improves communication, and de-escalates conflicts. Leaders use their empathy skills to understand the other party's perspective in order to avoid giving too emotional responses in conflict situations. Respect is maintained for everyone by doing this.

2. DISCUSSION

Health care administration includes all aspects of organising, managing, and coordinating nonclinical activities within healthcare organisations, networks, and systems. This is a highly specialised field of management that requires extensive knowledge of health care operations and technology in addition to soft skills including the ability to lead by example, collaborate

successfully with a variety of stakeholders, and proactively implement needed changes. Health care administrators with specialised knowledge are in great demand. It's typically difficult for companies to fill health-related administrative and management jobs with the proper people — those with specialised skills and advanced education. The data shows that it might take over two months to fill certain posts. New technology is being deployed that will continue to influence the future of the business, regardless of the field of health care management you may be interested in. Those that are willing to change will not only remain current in the healthcare industry, but will also become more employable (Figure 3).

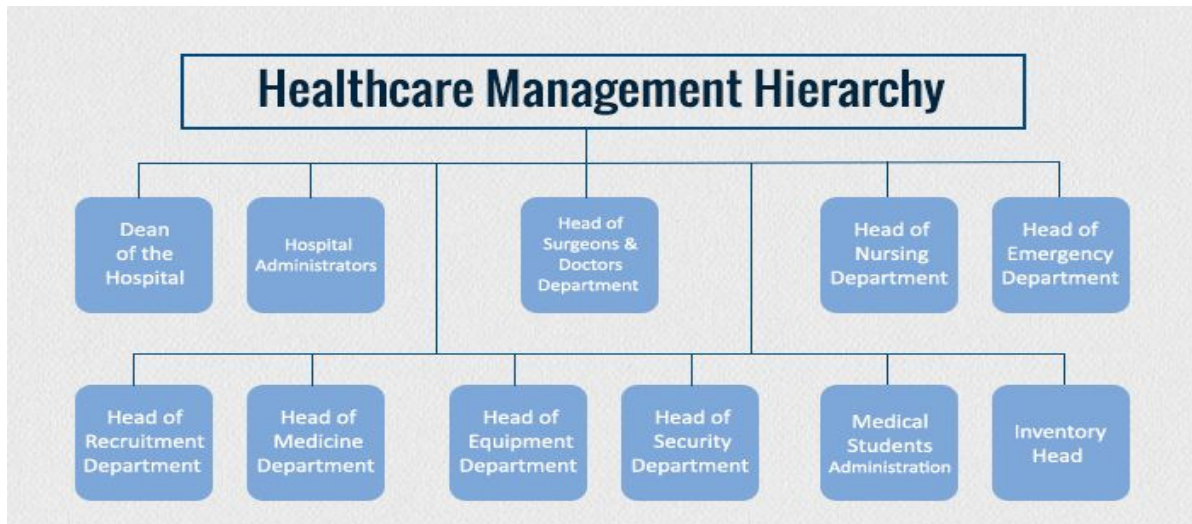


Figure 3: Representing the Hierarchy Involve in the Healthcare Management [pinterest].

Prior to the arrival of rapidly evolving medical technology, doctors didn't have as much need for healthcare managers. However, owing to the practically continual development of medical technology and frequent changes in the rules and regulations governing healthcare, hospitals and other medical institutions need professionals in these sectors to ensure that everything operates as it should. Its nature is well characterised by the phrase "healthcare management". It is the overall management of a healthcare facility, such a hospital or clinic. A healthcare manager is responsible for ensuring that a facility is running according to plan in terms of the budget, practitioner goals, and community needs. The facility's daily operations are overseen by a healthcare administrator.

Additionally, while interacting with the media, this individual acts as a spokesman. The person in charge of healthcare management also collaborates with medical staff leaders on issues such as department budgets and medical equipment, plans strategies to ensure the facility reaches its goals, and maintains good working relationships with all department heads, physicians, and nurses. The healthcare manager makes decisions on employee expectations, budgeting, social media posts, and invoicing.

2.1. Leadership of Healthcare in the Future

The need for additional leaders increases along with the healthcare sector's expansion. As stated by the U.S. According to the Bureau of Labor Statistics, employment of managers of medical and health services is expected to increase by 32% between 2019 and 2029. The facilities should encourage their workers to acquire leadership abilities via development training and career advancement initiatives, as stated below, in response to the surge in demand and ongoing technological improvements (Figure 4).



Figure 4: Illustrating the Leadership of Healthcare in the Future [read.org].

- Recruitment and Training for Leadership

Staff members could feel under pressure to keep up as healthcare technology develops. Training programmes are one method to guarantee your seamless transition into a leadership position. The majority of participants in a research on leadership development who underwent training acknowledged feeling more certain, competent, and empowered in their responsibilities as those who lead others. Organizations may create career mentoring programmes, encourage personnel to attend conferences, and support their ongoing education in an attempt to provide coaching and helpful criticism.

- Leadership programmes for careers in healthcare

Earning a graduate degree in a subject with executive leadership specialties, such as health administration, is another option to enhance leadership abilities. Clinicians and health administrators seeking to develop their leadership abilities, comprehend healthcare policy better, and advance their careers can find graduate degree programmes in physical and occupational therapy, speech language pathology, and other health sciences at the University of St. Augustine for Health Sciences (USAHS). The following courses are geared on helping medical professionals strengthen their leadership skills:

For working healthcare professionals who seek to enhance the systems of finance, informatics, operations, policy, and other crucial aspects of healthcare organisations, USAHS offers the Master of Health Administration (MHA) programme. With an optional internship and optional on-campus immersion weekends that will return in 2021, the programme is taught entirely online. You will get practical experience and widen your professional network whether you choose the standard or accelerated route, or one of our specialties in executive leadership, business intelligence, or interprofessional education. You will collaborate with a professional industry mentor on your capstone project.

2.2. Healthcare Administration vs. Healthcare Management

Many individuals wrongly assume that healthcare management and healthcare administration are interchangeable concepts and often use them interchangeably. They are distinct from one another. Healthcare administration looks after the personnel and workers while healthcare management oversees the complete healthcare firm. Although the healthcare manager may decide whether to recruit another employee, the healthcare administrator may be in charge of hiring workers for a certain department. Briefly said, healthcare managers primarily handle the financial aspects of healthcare businesses. A healthcare administrator will decide how to make staff members more effective in their professions and will be aware of the kind of patient care the facility will provide. The healthcare manager determines the kind of care, the quantity of employees, and how each department should operate. Healthcare administrators mostly concentrate on dealing with the employees, whereas healthcare managers focus on the overall requirements and direction of a hospital or other medical facility. Healthcare managers often supervise hospital-wide issues whereas administrators are in charge of specific divisions in hospitals.

3. CONCLUSION

A hospital management system project's implementation aids in storing all types of records, providing coordination and user communication, implementing rules, improving daily operations, setting up the supply chain, managing financial and human resources, and marketing hospital. Health care leadership refers to the use of a member's professional abilities and personal traits to guide their team toward a goal. In the field of health care, leadership may be shown by any team member, regardless of their status as a supervisor. Any organisation needs strong leadership since it influences the culture, working methods, product quality, and outcomes. Given that all of these variables may eventually have an impact on patient care and that the quality of that treatment may actually mean the difference between life and death, leadership in the health services sector is especially crucial. Health care organisations face far too many important problems to leave leadership to chance, fads, or disjointed approaches. This essay argues that approaches to developing leadership, developing leaders, and developing leadership strategy can and should be based on excellent theory, strong empirical support, and evidence on what works in the healthcare sector. Health care organisations can confidently face the future and confidently deliver the high quality, compassion that is their mission by creating and putting into practise leadership strategies which will result in the cultures they need to encounter the healthcare requirements of the populations they serve.

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CHAPTER 15

AN ANALYSIS OF JOB MANAGEMENT SYSTEM AND ITS PERFORMANCE EVALUATION

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ABSTRACT: *An online platform called Job Management System was created for the digital replacement of documentation and manual processes. The system is designed to make it possible for any corporation and its employees to organize and access essential information such as your work schedule and tax documents in one place. As a result, they play an important role in the backbone of grid software and are essential for reducing the use of high-performance computing equipment and costly capabilities in centers. The authors of this article summarized the findings of the Academic Evidence of the Job Administrator System which was published in Academia. In various process situations, studies have revealed considerable advantages and disadvantages of these job monitoring systems. This study has gone too long to try and identify the causes of the observational data of the tested task management system. This study will eventually shed more light on the expanded spectrum of employment management systems. In the future, this paper will be by other scientists and with the help of this essay, any one field can be considered for a fruitful and gratifying career in the industry across the world.*

KEYWORDS: *Application, Job Management, Performance Management, Software, Task Management.*

1. INTRODUCTION

Software infrastructure has experienced a considerable amount of development, and one of its essential components is job management, commonly known as workload-management, load-sharing, or load-management [1]. Job-management systems are computational models that can serve this purpose. JMS can use unused computer resources in a comparable pattern as computing. The primacy of JMS can perform in a variety of settings, including quantum computers, massively parallel machines, and heterogeneous groups of computers. Our research focused on the performance of JMS in weakly connected clusters of diverse machines [2]. It is difficult to select the best JMS for a certain type of distributed computing platform when there are so many JMS available for commercial as well as public domain. All the earlier JMS parallels that were documented in the literature were purely conceptual. Some JMS were interconnected and compared, according to a set of precise criteria. Several widely used JMSs were analyzed according to both of these criteria after a review of task management needs for numerical-aerodynamic-simulation (NAS) parallel systems [3]. Three popular JMSs were reviewed based on their connectivity with the Sun HPC cluster. In this essay, the author aims to broaden the conceptual comparison with a real investigation building on a series of precise tests systematically performed in a managed computing environment. We believe this is the first experiment to present the respective performance of several different JMS.

The strategy of focusing and structuring the workforce is considered a job management system. These systems can be employed for a wide variety of different systems and applications and are often computer-based. These applications are often modular, allowing a particular company to purchase only the components needed for them [4]. As a result, the cost of the overall network is kept low and the price of something like a system is split across

multiple components. One method of scheduling the work of an office computer is known in computing as a job management system. Most task management systems place equal emphasis on organization and administration. Typically, an organizational government relies on automation. The more fundamental accounting and record-keeping tasks the system can automate, the more time it gives employees to focus on other responsibilities [5]. Organizations now have a straightforward long-term record storage option as those automated actions are virtually error-free and remain simple.

1.1. General Architecture of Job Management System:

The goal of a JMS, which is addressed in this research, is to let individual's complete tasks in a non-dedicated cluster of workstations with the least harmful consequences on the owners of these workstations, which may be abandoned by the owners using computing resources [6]. At a minimum, the system should be able to perform the following functions:

- Keep track of all resources,
- Accept user-submitted tasks with each task's processing requirements.
- Carry out centralized task scheduling matching all resources available with all tasks submitted according to predetermined regulations,
- Distribute resources and start executing tasks.
- Monitor everything and collect accounting data.

To perform these basic tasks, a job management system must include at least the following major functional units shown in Figure1:

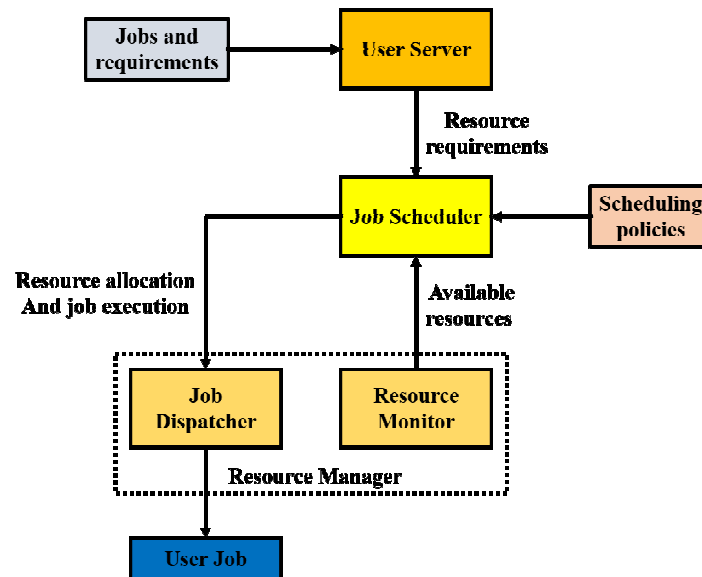


Figure 1: Illustrated the Functional Block Diagram of the Job Management System.

i. User server:

It enables users to submit operations and their specifications to JMS and potentially, examine and modify job developments.

ii. Job scheduler:

Based on resource needs, material availability, and scheduling rules, which handles task rescheduling and queuing.

iii. *Resource manager, including:*

- *Resource monitor:* It accumulates data on all resources that seem to be accessible.
- *Job Dispatcher:* It handles service provisioning and starts the process of executing tasks sent to JMS.

1.2. *Features of the Job Management System:*

Each element is fundamental to JMS and contributes to its functionality and usability. The following elements are listed:

i. *Job creation and job allocation:*

It enables you to create an internet presence for each of your assignments where you can put all the important information including client, job date, location, and specified requirements. Once the job profile is created, you can use the job designation to assign a job to a member of your organization. This includes all business information in an email or SMS sent to the person's phone [7].

ii. *Job schedules and timesheets:*

Once your team has assigned all of your tasks, they can all be found on a larger calendar for comparison purposes. Employees can monitor their days, weeks, and months in advance, ask for sick or annual leave, and check to make sure their schedule conflicts with that of someone else. Staff members can input their timesheet submissions on their phones while they are at work to keep track of their working hours [8].

iii. *Staff location tracking:*

Thanks to smartphones and Google Maps, you can see precise coordinates and show the way to someone who takes them on the job. This can be a great way to get an ETA without distracting someone driving.

iv. *Financial management tools:*

You can quote and invoice opportunities and more using custom templates and communicate them to customers by email or SMS. You can keep electronic records of your documents so that you always have the latest information available. You can manage any financial burden using financial tools, and it makes it easy to bill customers for their services and keep records of taxable things [9].

v. *A version for smartphones and tablets:*

There is no software platform worth its salt which is only available on the website. If your job management platform has a mobile app specifically for both iOS and Android, your team and you can always have the latest data available. It suggests that employees can update their work conditions while on the job, and that management can evaluate and modify data even when not in the office [10].

vi. *Able to integrate with other software:*

You can connect your career management software to another web system you currently use, such as an accounting system. As a result, displaying important data is now easier as you no longer need to jump between two software programs or manage multiple software devices [11].

1.3. Future Scope of Job Management System:

The management sector will continue to expand. There are various departments within the management sector, all of which are equally important. You can choose any one of these areas to build a productive and satisfying career in the management business. These sectors are the following:

i. Marketing-Management:

This area of management deals with marketing and planning to expand the company's reach to a wider audience.

ii. Finance-Management:

Managing something like a company's financial capabilities is a concern of financial accounting. It also prioritizes creating more revenue for the business, to have better achievements [12].

iii. Production-Management:

This division, also known as Operations and Production Management, is concerned with the management and planning of industrial activities. This guarantees a frictionless transaction whichever level [13].

iv. Human-Resource-Management:

It is a comprehensive and systematic way of supervising the work environment, organizational culture, and individuals.

v. Personnel-Management:

Employers are hired, used, cultivated, and maintained under such management to maximize their value to the organization. It helps to have a pleasant staff.

vi. Office-Management:

Administrative support takes care of all the responsibilities and functions required to manage the company. To put it another way, it entails administrative supervision [14].

vii. Inventory-Management:

Inventory Senior Management The main objective is the preservation, administration, and storage of items for the warehouse.

viii. Banking-Management:

This area of supervision oversees the conduct of business. The management category includes investments, taxes, additional funds, and investment management.

1.4. Advantages of the JMS:

There are a ton of great reasons to jump on to job management software.

i. Huge Time Saver:

You get tasks done more quickly and effectively and can save up to 14 hours of business work per week on average.

ii. Easier to Keep Track of Everything:

Whiteboard, email, collaborative paper, and paper documentation are all excellent, although neither of them communicates with the other. Using a task management solution, you can connect with your colleagues and centralize employment information, calendars and budgets. This ensures that nothing is misunderstood, destroyed, or misunderstood.

iii. Gives that Extra Professional Touch:

With the help of a task management system, you can quickly generate proposals and invoices, remind customers, and provide your employees with an intuitive system. There will be no need to search for lost documents or make phone calls for ETA while commuting.

iv. Get more done and grow your Business:

You have better visibility of your job due to a more effective framework. You can plan more efficiently and identify opportunities for improvement when you stack tasks on a job management portal. Planning can give you extra time for assigned tasks and improve your income.

1.5.Process of the Job Management System:

A computer system or combination of computer software called a "Job Management System" (JMS) is used to collect and save electronic information. It can continue to keep track of the multiple versions that users and applications have edited. The phrase and document management system elements are somewhat overlapping [15]. It is often seen as part of an enterprise content management (ECM) system and is associated with workflow systems, document management systems, digital financial services, and document digitization. Common features of document management software include storage, configuration management, metadata, security, indexing, and retrieval. "Job Management System Architecture" is built using block diagram modeling and vector drawing software that was enhanced with the Block Diagram product from Solution Park [16].

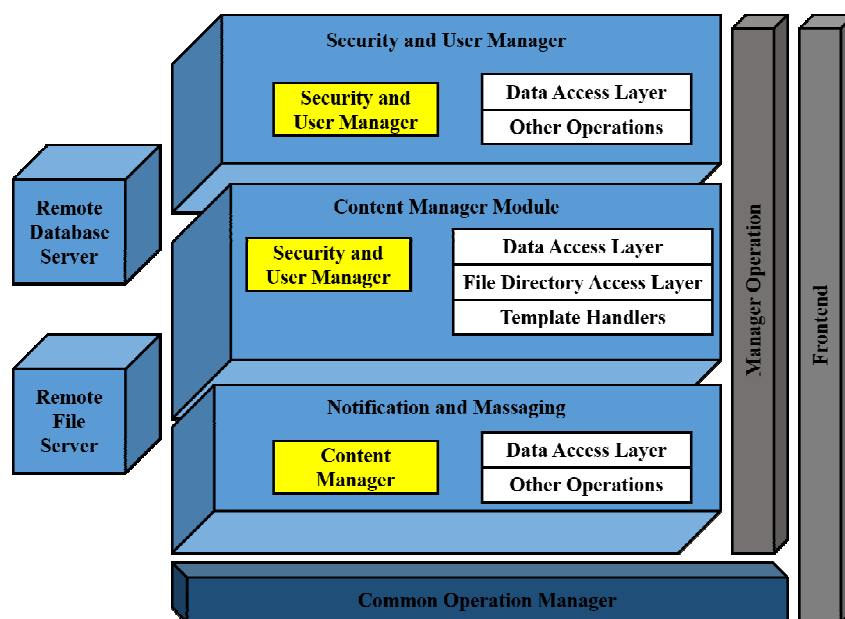


Figure 2: Illustrated the Process Diagram of the Job Management System.

This graphic shows the vector component libraries for sequence diagrams, perspective blocks, callouts, interconnections, and north-enhanced blocks. Block diagrams include special diagrammatic symbols for diagramming and geometric drawing tools, including arrows, input and output symbols, start and conclusion symbols, processing symbols, conditional-symbols, commenting-symbols, callouts, interconnections, etc. One diagram component of the idea is the Block Diagram Solution in Draw Solution-Park (Figure 2). Quickly create block diagrams for your business papers, displays, and websites using the framework from Block Graphical Representation Solutions [17].

1.6. Software used to Collect Performance Measures:

All JMS undergo standardized parameter measurement, applying only the operating system's tools and procedures. Specifically, the exact time of task submission as well as the beginning and end of the completion time was determined using the time information produced using the C-function "gettimeofday()".

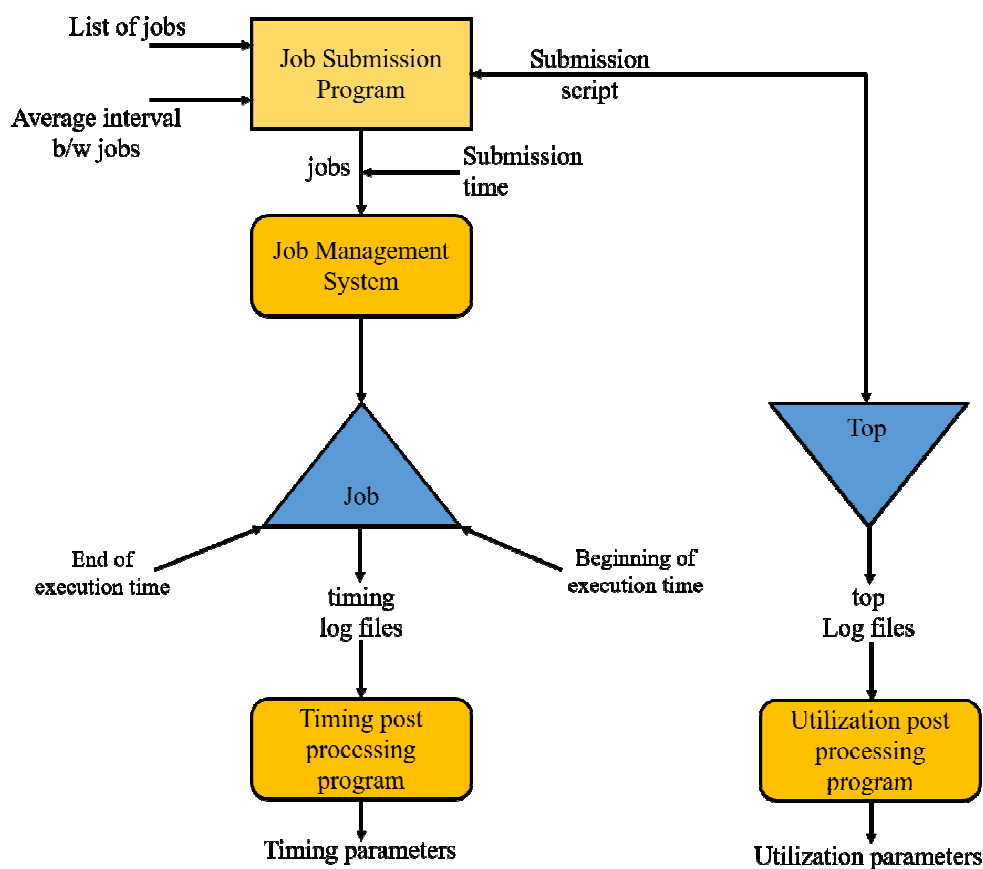


Figure 3: Illustrated the Software used to collect Performance Measures.

The computer system provides the current time to the "gettimeofday()" method. Time since January 1, 1970, 0:00 GMT is shown in seconds and nanoseconds. The accuracy of the system clock, which is hardware dependent, determines the exact frequency of the time returned. The clocks of each workstation in our micro-grid are being synchronized using unfix network-time-protocol (NTP). The accuracy supplied by the protocol ranges from thousands to tenths of a millisecond [18]. The UNIX top tool was used to calculate JMS usage. This program averages over a short period in proportion to the computational resources consumed by each process running on the desktop machine. The total percentage related to all JMS tasks is calculated for each moment. These amounts are averaged

throughout an experiment, to establish the average usage of each workstation by all JMS tasks. The total saturation of JMS is calculated by summing up the execution host applications across all execution hosts. To facilitate the study, three programs are installed and used in the manner shown in Figure 3. A C++ job submission software has just been created, for the computer to randomly submit tasks. This program requires the name of the JMS used in the specific experiment, a list of jobs, the total number of submissions, the average time between submissions, and the total number of suggestions [19]. To handle the log files supplied by benchmarks and apex tools, two processing Perl scripts called timings as well as utility encoding utilities have been built in. These procedures provide detailed results that include numbers for each execution host independently as well as collectively for the said complete microgrid during testing (Figure 3).

2. LITERATURE REVIEW

K. Sandalika and P. Jayasekara illustrated the Effect of the performance appraisal system on the job satisfaction of executives in western provincial automobile businesses. It is challenging to find scientific evidence of how an individual's performance-management system affects their work engagement. The researcher who conducted this study detailed how performance management processes in the car industries affect executives' job satisfaction. In this research, 248 respondents who performed for car manufacturers in the Western Province completed a structured questionnaire that included graded comments on a five-point Likert-scale. Bivariate analysis of the data was accomplished using different approaches. The main finding of the study is that performance management practices have a significant favorable effect on the job satisfaction of executives in car corporations in the Western District of Sri Lanka. Nevertheless, the data shows that a large number of systems for performance management already exist in some individual firms. It has been determined that management systems for performance have a significant impact on the job satisfaction of administrators at car manufacturers in the Western District of Sri Lanka. [20].

A. Baranov and D. Lyakhovets illustrated that supercomputer Job Control Systems (JMS) is sophisticated algorithms with many settings and features. Various simulation approaches have been used to investigate the effect of such factors on JMS efficiency metrics. One of the key themes is analyzing the effectiveness of JMS models when they are applied. The report outlines the findings of adequacy measurement experiments for several JMS models, such as those using task scheduling simulation games and virtual parallel processing nodes. The tests took advantage of JMS running at the Joint Supercomputer Center. The source data for such modeling was obtained using supercomputer statistics. The work streams of the real supercomputers and the job occupancy time vectors of the JMS model were used to construct the generalized Euclidean distance between them as a measure of the applicability of the model. The results of the studies supported intuitive assumptions about the accuracy of the simulation techniques examined, allowing the use of generalized distance metrics between vectors of jobs' turnaround times as little more than a gauge of the suitability of alternative JMS models gives. [21].

D. Wannipurage et al. illustrated the implementation of a new performance management software for Scientific Gateway within the Apache Airavata open-source software framework. The author bases his determination on operational requirements and functional knowledge gained from the operating software as multi-tenant improvements are made for various gateway clients. The inclusion of semi-independent sections, making significant improvements to those features while maintaining the overall operation of the service, and deciding whether one should integrate commercially created or internally generated content are all things that need to be done. Attention is required. While the authors focus on Apache

as a sequence of further understanding, the findings should be of interest to all. After analyzing the pros and cons of doing so, the author finally decided to choose Apache over Kubernetes. This was largely due to Apache's ability to perform many tasks involving directed acyclic graphs. The method has just been thoroughly tested over several months, ranging from both internal product testing and commercial testing with the early adopter Scientific Gateway client to tens of thousands of tasks that have merged it into Apache. The advantages of the new system over the old are easier maintenance, the ability to support fairly complex performance-type situations, and the fact that we no longer choose to support an internal system that requires serious developer training. The new method has proven to be almost as accurate as the old one [22].

3. DISCUSSION

Many of these systems, especially organization-focused modules, are tied to a business's human resources department. Systems are widely used to track payroll, training, and benefits. Many platforms also help organize job applications and proactively recruit candidates, all of which help the department find new employees faster. These systems often have modules. A company buys the most basic version of the application, which provides only the most basic features. Then, it acquires more modules that are specifically tailored to the needs of that company. For example, the company may need a payroll and training system, but not a supply delivery monitor. This keeps the program on target and makes it easy for employees to use. Computers also use a system called a job management system. The internal programs of a computer classify and organize its operations. They enable important tasks to be completed on time, resulting in faster computer operation.

4. CONCLUSION

The average volume between task submissions is set at relatively modest levels to account for the fact that our measurement and experiment timelines seem quite brief compared to real-world settings. As a result, the system has worked out perfectly, and our findings are approximated on a scale of loads that are more realistically applied, with proportionally longer task execution periods and longer intervals between job submissions. Any complex system, like JMS, rarely has the full capabilities used by its specific users. Instead, most task management systems that have been put into operation in the field employ default settings for most setup parameters. Furthermore, to the best of our knowledge, our work is the first analytical study of a job management system to be published in a book. Other organizations can use our technology and the tools we have created as a result of this study to advance their knowledge of the similarities and differences between the behavior and effectiveness of various job management systems. In the future, instead of isolating a node too much to save energy, we will start working at a fundamental level.

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CHAPTER 16

A COMPARISON BETWEEN THE ANGEL INVESTORS AND VENTURE CAPITALISTS

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ABSTRACT: *High-net-worth Angel investors, sometimes referred as private investors, seeded shareholders, or angel funders, are those who provide financial support to small enterprises or entrepreneurs. They frequently agree to do so in exchange for equity in the company. A venture capitalist (VC), a type of private equity investor, makes loans to companies with significant growth potential in exchange for a stake in the company. This can entail financing startup companies or helping small firms that want to expand but can't have access to stock markets. The problem arises due to the high amounts of money involved in venture capital transactions, company owners must take this into account and plan for delays. Furthermore, they could demand that specific benchmarks be reached before providing the cash. Hence in this paper author focuses on the comparison between angel investors and venture capitalists based on different parameters. It is found that businesses may continue to use angel investors to finance the expansion of company sales by acquiring new goods while also being paid from present sales. It concludes that to maximize their chances of selecting quality firms, investors try to invest in sectors of the economy they are familiar with. In the future, both investors spend money on ventures they think will be successful. At the end of each day, they both desire a return on their investment of 20% to 30% every year, varying in risk depending on the stage of the company's development.*

KEYWORDS: *Angel Investors, Business, Company, Startups, Venture Capitalists.*

1. INTRODUCTION

An extremely wealthy individual was normally the standard angel investor in the past. They made their investments in start-up companies in exchange for participation or equity [1],[2]. Registered investors were required, as were those with millions to invest [3],[4]. The majority of these angel investors maintained a low profile and worked in exclusive networks [5],[6]. They frequently invested either on their own or through syndicates with other wealthy people they frequently knew or respected [7].

But the Jumpstart Our Business Startup Act of 2012 cleared the opportunity for virtually anybody to participate in a private firm, encouraged alternate methods of funding small enterprises, and lifted several investor limitations [6],[8]. When private enterprises interact with investment platforms such as Republic, the wealth limitations are lessened although the basic operation of angel investors remains the same.

Because of the rise in entrepreneurs and the enormous number of businesses vying for investment, the times when entrepreneurs would secure angel funding on the strength of a good concept are long gone [9]. The words seed money friends and relatives round are used to describe this. A company idea's crucial initial stage of finance is frequently referred to as seed money [10],[11]. Usually, it describes the phase just before an entrepreneur contacts an angel investor. When the business risk is greatest and the company is simply a notion [12],[13].

To get their ideas off the ground using their money before approaching angel investors, who are typically strangers, entrepreneurs frequently turn to family and close friends at this early stage [14],[15]. These are individuals who have faith and understand the founder sufficiently to invest in their business. However, things aren't always black and white, and depending on how strongly they engage in the company, an angel investor may also offer the required starting money.

Angel investors are individuals who are interested in investing in startups. Usually, no more than 15percent of total of an angel investor's whole portfolio is made up of these risky bets. Angel investors generally have additional cash on hand and are looking for investment opportunities that might produce higher returns than any of those provided by more traditional investment options. In addition, angel investors provide more favourable conditions than traditional lenders because they typically invest in the entrepreneur who is starting the business instead of its sustainability. Angel investors support startups rather than focusing on the potential profit they may derive from the company. Venture capitalists are basically the opposite of angel investors. Other designations for angel investors include venture capitalists, startup shareholders, and business angels. These are frequently well-off people who finance start-up businesses in consideration for ownership equity or convertible debt. Occasionally, angel investors organize angel investor clubs to pool their assets or use online crowdfunding platforms.

1.1.Venture capitalists (VC):

A venture capitalist is an organization that has pooled funds for the aim of investing in enterprises with significant development potential, as opposed to a business angel, who is often a person who invests their own money in a company. This fund can be used to invest in a certain industry, a specific area, or during a specific stage of a company's development. Like angel investment, the venture capitalist gives money to the firm in exchange for an equity share in the company. Another significant distinction is that venture capital companies sometimes engage in a business at the later stage of its development when the initial business model has been validated and there is sufficient proof of market momentum. The frequent use of the terms Series A, B, and C, which relates to the growth stages of the companies wanting venture capital investment, is another significant aspect of VCs to keep in mind. A firm would formerly look for "Series A" venture capital funding to achieve "manufacturing fit." The venture capital sector has raised the standard even higher in response to the increasing amount of startups asking for funding, and as a result, the trend needle is currently going in the direction of businesses that have already achieved manufacturing fit and are aiming to scale. But the Series A matches often have a bigger field size. Series B and C rounds often include substantially larger deal sizes, with the firm now experiencing fast growth and perhaps pursuing global markets.

The present paper is a study about venture capitalists as well as angel investors are two of the most widely used non-traditional sources of finance. Both angel investors and venture capital firms target innovative start-up businesses, and both favor technological and science-related businesses. This study is divided into several sections, the first of which is an introduction, followed by a review of the literature and suggestions based on previous research. The next section is the discussion and the last section is the conclusion of this paper which is declared and gives the result as well as the future scope.

2. LITERATURE REVIEW

Colin Mason [16] et al. have explained that business angels were increasingly participating in structured and controlled angel groups with other angels rather than investing alone. The

majority of current research on angel investing, which is based on studies of solo angel investors, is challenged by the author as still being relevant. From a methodological perspective, it might not be appropriate to base research on samples collected from angel organizations (particularly samples from a single company) and make the assumption that the evidence is substantial in comparison to earlier scientific research based on single angels or it may be applied to the whole business angel occupants. This is because business angels are evolving. It showed how the nature of the financing available for startups has changed, along with the conventional idea of what an angel investor is and how the investing process works. Finally, with the advent of group investing, this body of known information may no longer be applicable.

Benjamin J. Warnick [17] et al. have explained that, as contrasted to the entrepreneurship activities themselves, entrepreneurs are enthusiastic about the field in which their business operates and the activities associated with the good or service it offers. According to studies, venture capitalists and angel investors both consider entrepreneurs' enthusiasm for activities related to the proposed service or product of the firm. It indicates that both forms of enthusiasm are more desirable to investors when they think the entrepreneur is extremely sensitive to criticism, suggesting that being open to feedback allays any possible worries about passion taken to its logical conclusion. Finally, individuals with greater business experience underline the need of having both an entrepreneurial spirit and an open mind.

Linda F. Edelman [18] et al. have explained that the underlying business quality is difficult to observe, and entrepreneurs struggled to convincingly describe the investment opportunities of early-stage ventures. To explore how new ventures truly communicate their underlying firm excellence, researchers have used a configurational technique and a special collection of 117 new businesses that sought finance from a well-known angel club with in Northeast region of the country. It utilizes crisp-set qualitative comparative analysis (cs/QCA) to interpret signal architectures when making selections regarding angel investments. Its findings show that different effective signal configurations correspond to different investment stages, providing proof of the angel investors' cognitively dual functioning. Entrepreneurs should take note that indications of venture quality do not just come from the activities with which the new company is involved; they may also come from suggestions and previous investments made by angel investors or venture capitalists.

The above study shows that the business angels were increasingly participating in structured and controlled angel groups with other angels rather than investing alone. It also discussed the underlying business quality is difficult to observe, entrepreneurs struggled to convincingly describe the investment opportunities of early-stage ventures. In this study, the author discusses the characteristics of different types of angel investors, and comparison between an angel investor and a VC.

3. DISCUSSION

Startup funding is the first infusion of capital from a variety of sources to launch a firm and turn a concept into a tangible good or service. The two main alternatives to traditional startup financing are angel investors and venture capital. Wealthy people who support new entrepreneurs and businesses with funding in their early stages are known as angel investors. Instead, a venture capitalist seems to be a business made up of a group of financial specialists or a competent person that invests in start-up companies and small enterprises using money from annuity money, insurance providers, pension benefits, high-net-worth people, etc. The difference between the angel investor and venture capitalist categorized are in Table 1.

Table 1: Illustrates the comparison between the angel investor and venture capitalist.

S.NO.	Basis for comparison	Angel investor	Venture capitalist
1	Meaning	Angel investors are wealthy people who inject money into startup founders' businesses in exchange for an ownership interest or convertible bonds.	A venture capitalist is a business, a division of a business, or a professional who invests in emerging businesses by giving them funds to support their growth and expansion.
2	Approach to agency risk control	Approach to incomplete contracts	The principal-agent model.
3	What is it?	Individual investors, many of whom are accomplished, businesspeople.	Professionally run business, either public or private.
4	Stresses on	Ex-post involvement-related investment criterion.	Investment standards for the preliminary evaluation of investment prospects.
5	Investment size	Less	Comparatively large
6	Post Investment role	Active	Strategic
7	Money	Utilizing their funds, they invest.	Combines funds from companies, charities, charities, and insurance firms to create an investment.
8	Screening	Undertaken by the angel investor according to their own experience.	Carried done by a group of specialists or a third-party company that specializes in the same.
9	Investment	Investments are made in the early-stage company.	Investments are made in businesses that are not yet profitable.

3.1. When Angel Investors Begin Their Journey With a Startup:

In today's market, investors are more willing than ever to fund a novel concept. To be successful in their presentation to raise money, entrepreneurs must also have a solid understanding of the minds of investors. Angel investors that fund firms often have several goals in mind. Others are searching for a way to contribute to the community by wanting to share their business management expertise or simply as a way to stay in contact with their industry. A few individuals are seeking to make an impact by supporting innovative business ventures that have the possibility of bringing about revolutionary change. Then others are only concerned with getting a satisfactory return on their investment. In each case, investing in

companies that will yield the maximum profits is the key to their success. Intelligent investors have an exit strategy in place already before they commence their adventure with the company since they always intend to exit the firms they invest in after three to five years, on average. Despite having high expectations for the entrepreneurs' capacity to manage the firm and make it profitable, angel investors are willing to take risks. Some traits are common amongst most angel investors in Figure 1.

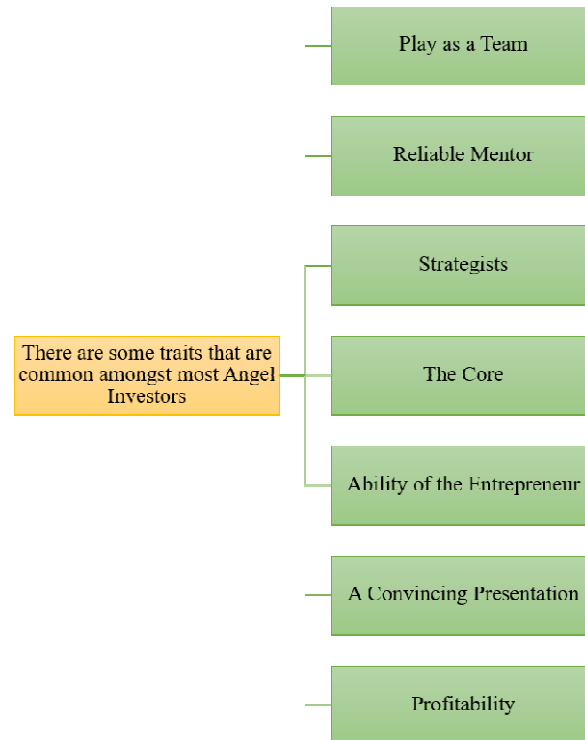


Figure 1: Illustrates some of the traits that are common amongst most Angel Investors.

3.1.1. Play as a team:

Most seasoned angel investors work in groups to make investments. By doing this, they can be sure because when investors invest in a company, the business model has been thoroughly examined and validated. Entrepreneurs have access to the assistance and advice that the investors collectively contribute since they have witnessed the growth of many enterprises. However, it's crucial to keep in mind that they'll only function invisibly.

3.1.2. Reliable mentor:

Successful angel investors typically have extensive expertise and experience from working directly with many firms, but they are constantly eager to learn new things. As a result, entrepreneurs may use them as trustworthy information sources and think tanks by constantly counseling them on their company strategies.

3.1.3. Strategists:

Investing in companies with an uncertain future carries considerable risk, so it's not a simple choice. Even though the investors are willing to take the risk, they often have a plan in place to ensure that the business can generate a profit. To avoid disagreements at any point, every entrepreneur must comprehend and match company plans with the requirements and assumptions of the investors. Constant consultation and counseling are the only ways to achieve this. An angel investor won't fund a company unless he or she is 100 percent certain

of its ability to turn a profit. Even though they might not inquire, the entrepreneur must respond to any inquiries they may have. They base their evaluation of the business models upon a few important factors.

3.1.4. The core:

Every business starts with a concept, and this idea must have the capacity to carve out a niche for itself, which is even more essential in a market as aggressive as India. The company should be able to fill a gap in the market or develop a new one on its own. For future growth, scalability and a sizable prospective user base are also crucial.

3.1.5. The ability of the entrepreneur:

Investors are highly aware of the fact that businesses are operated by people. As a result, it is nearly a given that every investor will weigh the stakeholders in a business initiative before investing. Investors like to work with people that are not just enthusiastic about the concept but also have the necessary skill sets to run a firm. Among the most important criteria, they use to evaluate start-ups before deciding whether to work with them is this. Most investors have experienced businesspeople themselves, so they like to work with groups who are willing to learn through their experiences as well.

3.1.6. A convincing presentation:

Successful investors review a lot of company plans every day and may not have the time they would like to carefully consider each one. Therefore, it is essential to describe the business model using the most efficient, realistic way possible, emphasizing the key elements of the company such as the main concept, the market situation, the go-to-market strategy, and the specifics of the financial statements. This enables consumers to take an educated decision by giving them the full picture in a single glance.

3.1.7. Profitability:

Return on their investment is what an investor hopes to achieve by joining a start-up business; as a result, this turns into the most important factor for them. To assist customers in making a choice, it is crucial to present them with a realistic image of the potential profits and returns of the company model. Even though most investors choose to invest in their field of expertise, they are often open to investigating newer and more promising areas.

3.2. Characteristics of different types of Angel investors:

Based on their background and reasons for investing, angel investors can be divided into several broad categories. Value-oriented, deep-pocketed, partner, barter, and socially responsible investors are the four main categories of independent angel investors. The fundamental sorts of angel investors differ in the extent to which they prioritize financial gain above enjoyment and doing well. The most return-oriented investors are value-oriented and wealthy. The least ROI-focused investors are those who promote social responsibility. Instead, the socially conscious investor prioritizes their happiness and psychological benefits, which are less significant to the value-oriented investment.

3.2.1. Value-oriented investor:

Even though most angel investors have such a mix of reasons that contain at least traces of all qualities, value-oriented, profound investors are the most prevalent and prominent kind. Investors that prioritize value look for appealing assets with 50 percent or higher returns. Typically, they provide significant cash as well as actual business expertise to the investing

process. The established careers as business owners who established and sold at least one firm or as financial institutions are common sources of practical experience in the business. Due to their frequent investments in several businesses, these angel investors desire to be active and also have fun throughout the business but just not run it. They are more than happy to have their equity reduced if that is what it takes to finance quick, lucrative expansion. They sell the business with minimal emotional reluctance to maximize their income.

3.2.2. Partner investors:

Partner investors who would normally want to acquire a firm but do not have the funds to do so are frequent purchasers in disguise. Partner investors are frequently wealthy senior officials or former company owners who are re-entering the workplace and purchasing their previous position. As a result, these investors frequently have a strong desire for control and frequently wish to be the corporation's president. These investors often only invest in one business at a time and anticipate being heavily involved in its management. They would be open to selling the firm if the proceeds would allow them to purchase a different company. Nonetheless, partner angels might get connected to the business and be hesitant to relinquish their chief executive positions. Additionally, they could provide a means for the firm owner to leave.

3.2.3. Barter investors:

It generally offers the firm the goods and services the corporation would normally pay cash for, providing their investment courteously rather than in cash. These people want to provide financial resources, become involved with the business, and help run it. The traditional barter investor is indeed a business incubation, which offers office or other forms of accommodation as well as a range of related company services in exchange for stock in early-stage investment.

3.2.4. Socially responsible investors:

In projects addressing social concerns, they aim to collaborate with people who have high standards of morality and social behavior. These investors look for an acquisition that promotes their social beliefs to yield a decent return of 10 to 15%. They frequently prefer inherited money to the wealth acquired through work. Typically, they are interested in the project but lack the business knowledge and expertise that successful business people have. A lot of social responsibilities are also probably going to keep them from focusing on the functioning of the investment for lengthy periods. However, they could have a great network of connections.

3.3.Types of venture capital funding:

The Series A investor is the initially qualified investor in a venture at the start-up stage. Following this investment, the Series B, C, and D phases provide intermediate and later-stage finance. Mezzanine, late-stage, and pre-IPO investments are included in the final stages. A venture capitalist (VC) could focus on offering only one of these types of finance or might give funding for all phases of the business life cycle. Knowing the VC's preferences is crucial, as is being able to communicate them properly.

3.3.1. Seed Capital:

Individuals would look for seed financing if their business is just getting started and simply doesn't yet have a product or an established firm. At this time, few VCs invest, therefore the sum would presumably be modest. Investment funds might be used to develop a prototype, pay for market research, or defray the expenses of administration setup.

3.3.2. *Startup Capital:*

Their business would have a sample product on the market at this point and at least one principal would be employed full-time. At this point, funding is also uncommon. It typically covers the selection of more key management, further market analysis, and preparation of the good or service for release on the market.

3.3.3. *Early Stage Capital:*

You've launched your business, put together a management team, and revenues are rising approximately two to three years after their enterprise. At this point, VC money could assist you to boost sales to the point of break-even, raise productivity, or boost business effectiveness.

3.3.4. *Expansion Capital:*

Some firm is already well-established, and they're turning to a VC to assist business reach the next stage of expansion. Individuals might be able to expand their marketing efforts or explore new markets with financing at this point. Look for VCs with experience in later-stage financing.

3.3.5. *Late Stage Capital:*

Someone's business has remarkable sales and income at this point, and the second level of management is now in place. They can be searching for money to boost your working capital, your advertising efforts, or your capacity.

3.3.6. *Bridge Financing:*

Additionally, a business can be seeking for a partner to pursue merger or acquisition opportunities with, or to raise money from the general public through a stock offering. Some VCs concentrate on this sector of the economy, specializing in IPOs, buyouts, or recommendations that have been provided. A VC may also help with mezzanine or bridging financing if you're contemplating an IPO, which is short-term funding that enables the company to cover the costs of going public. Risk versus profit will be a crucial consideration for the VC. The inherent dangers are bigger and the duration before the VC's departure is longer the younger a VC invests. As a result, the VC will anticipate a greater rate of return for making an early investment; usually, they anticipate a 10 times multiplier return within five to seven years. Within two years, a later point in time VC may aim for a two to four times additional return.

In general, an entrepreneur with a company idea could find the angel investor to be the greatest choice. However, if someone has already started a firm and needs more funds and/or expertise to help it grow, a venture capitalist could be the answer. The key advantage of being an angel investor is that it is far riskier to obtain finance through loans than through angel investments. Investment profits, in contrast to loans, are not repaid if a business fails. Additionally, the majority most angel investors generally knowledgeable about business and hold a long-term outlook.

4. CONCLUSION

Individuals with high net worth and venture capitalists are willing to fund cutting-edge new initiatives in large numbers. These wealthy people are frequently referred to as "Angel Investors." There are many obstacles in your path when you're an aspiring entrepreneur who wants to launch a firm or seek capital. One should thoroughly research the project under consideration, considering the predicted risk-reward ratio in light of the high risk associated

with venture capital investments and the high profits anticipated. One needs to complete their research on the demands of their firm as well as the venture capital they are targeting. Whichever sort of investor you approach will depend on where you are at in the process, whether the company needs a seed round to start things started or whether the business is more accomplished and can manage the added workload of working with a VC company. In the end, traction, profitability, and the size of the prospective market are the most important factors. Every concept or business does not have to be a unicorn. Smaller businesses are often highly successful and provide investors with significant returns. Therefore, before deciding between being an angel investor and then a venture capitalist, thoroughly analyze your ambitions and your position in the investing landscape. Venture capitalists and angel investors generally aim to provide funding for business owners and small enterprises with new innovations as well as the potential for success. Additionally, they have a stronger preference for concepts related to science and technology. It is suggested that angel investors are past business owners who give newcomers their own money to assist them to succeed. Conversely, venture funders seek out entrepreneurs with a great track record, innovative ideas, and a solid product or business strategy that offers a distinct competitive edge.

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CHAPTER 17

ROLE OF STRATEGIC ALLIANCES FOR THE PROMOTION OF GLOBAL SUPPLY CHAIN MANAGEMENT: A REVIEW

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ABSTRACT:*An agreement between two or more businesses to collaborate on a specific business project for each business to benefit from the strengths of the others and gain a competitive edge is known as a strategic alliance. It is believed that strategic alliances are a response to globalization and a more complex and unpredictable corporate environment. The problem due to the absence of strategic alliances in supply chain management such as lack of independence or clash of corporate cultures can be the main obstacle to the development of the alliance. This study focuses on the significant role of strategic alliances in promoting global supply chain management such as enabling partners to expand rapidly, create innovative consumer products, discover new markets, and efficiently combine invaluable resources and expertise. It is also a game-changer in a corporate environment that rewards innovation and efficiency. It concludes that strategic alliance priorities may include expanding into new markets, developing new skills, and sharing risks and resources. In the future, Strategic alliances are gaining importance as a tool to diversify service and product capabilities, expand into new markets, and benefit from technology, research, and innovation.*

KEYWORDS: *Global Supply Chain Management, Market, Strategic Alliances, Organization, Supply Chain.*

1. INTRODUCTION

A strategic alliance is an agreement between businesses to do business that goes beyond traditional company-to-company contacts but is much smaller than a merger or even a full partnership [1],[2]. A strategic alliance may be formed by two companies exchanging technology and marketing resources [3],[4]. They can be extremely complex and involve a large number of enterprises that are spread across many different countries [5],[6]. Then, these companies can form autonomous partnerships with other organizations. As a result, a network of interconnected companies emerges, some of which may engage in direct competition with each other in certain product categories while others cooperate [7],[8]. These contracts can be formal, comprehensive documents or quick handshake arrangements in which the parties may exchange shares or make financial contributions to set up a joint venture company. Although most of the discussion in the literature on strategic alliances focuses on cooperation between two companies, multi-company alliances are also becoming more popular [9],[10].

For example, a six-company strategic partnership between Apple, Sony, Siemens, Panasonic, AT&T and Matsushita resulted in the creation of the General Magic Organization that develops Typescript communications software [11],[12]. Strategic partnerships involving two or more companies are simply agreements to exchange resources, share risks, or split income from joint ventures [13],[14]. This can take many different forms, such as an alliance working toward a common goal, a strict collaboration with the source of transmission, a partnership with the provider of such invention or goods, or a relationship with such a supplier. Sometimes, the partners will set up a new jointly-owned company. In other instances, one business buys shares in another. The connection is usually defined by an agreement. Strategic alliances and other forms of cooperation have many things in common.

The differences relate to how difficult it is to form solid alliances or partnerships with strategic importance. They are more challenging to execute because they demand adherence to the requirements of many cultural and business practices.

As the global environment becomes increasingly uncertain, businesses are looking to strategic partnerships to protect their comparative advantages. Figure 1 shows how business leaders form strategic partnerships to achieve a variety of strategic goals. Strategic alliances now play an important role in the worldwide strategy of organizations. Business arrangements that involve the exchange, sharing, and co-development of goods, technology, or activities are known as strategic alliances. These alliances can take many different shapes and develop along horizontal or vertical lines. Corporations no longer function as separate entities because of their competitive spirit; As a result, they form supply chain alliances that compete. As a result, distributors, manufacturers, logistics providers, and retailers continually build powerful horizontal and vertical relationships to remain competitive in the supply chain.

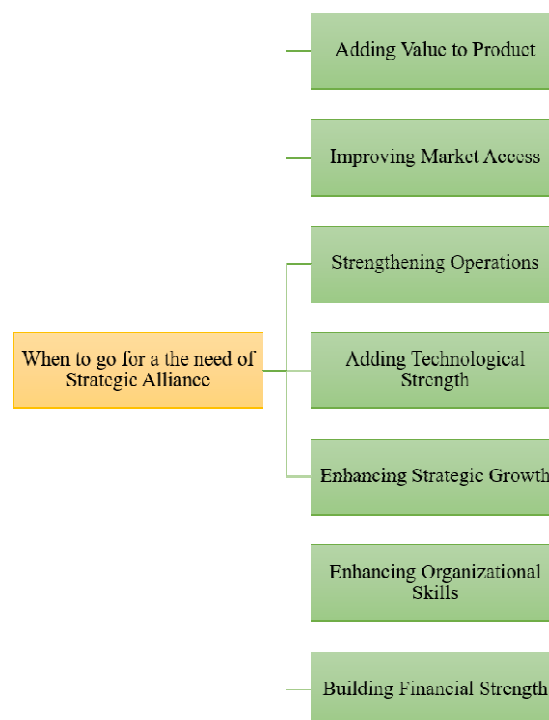


Figure 1: Illustrates the Several Factors in the Supply Chain that can Increase strategic Alliance.

Security of technology and critical information, growth of competitors and market shares, as well as spreading out of costs and threats are the three main benefits of forming partnerships within supply chains. Consortia can be used as a flexible learning tool, a means to successfully share knowledge and pool resources, a way to harness complex technical potential, and much more. Whenever faced with an uncertain environment, many companies resort to partnering with key stakeholders as a way of reducing their risk. The intra-organizational alliance structure of a company can be chosen to cope with the changing state of the environment, thanks to the ability to configure alliances. This skill set includes the ability to identify profitable alliance prospects, plan alliances, coordinate alliances, and engage in alliance learning. This capability allows the company to research new markets as its new partners change markets in response to changing consumer preferences by offering new products through strategic alliances, maintaining the environment by employing alliances, and competing to gain an edge.

The present paper is a study about a strategic alliance agreement can help the business make a more efficient process. Through a strategic partnership, two organizations, people, or other entities may cooperate to achieve related or mutual goals. This study is divided into several sections, the first of which is an introduction, followed by a review of the literature and suggestions based on previous research. The next section is the discussion and the last section is the conclusion of this paper which is declared and gives the result as well as the future scope.

2. LITERATURE REVIEW

Yanling Chang [15] et al. have explained how blockchain technology can completely transform supply chain management globally. The author has given both the private sector and government organizations a current and thorough analysis of the state-of-the-art, issues, gaps, and opportunities in highly effective supply and commerce operational processes on a worldwide scale. It identifies collaborative frameworks and future research topics for business, administration, and academics to collaborate on to make sure that blockchain maximum capabilities are unlocked in the socioeconomic context. As the findings show, government assistance may ensure that in a blockchain-based SC ecosystem for content exchange and information exchange, the needs of both government agencies and the commercial sector are being taken into mind. Finally, it is in the interests of governmental organizations to encourage the creation of standard protocols and architecture.

Rameshwar Dubey [16] et al. have explained how Blockchain Technology (BT), sometimes referred to as distributed blockchain technology, has garnered a lot of interest from a wide range of sectors and countries. Based on studies influenced by systems studies of information processing with such a relational perspective, the authors propose a theoretical framework for understanding how Swift-Trust (ST) builds between actors participating in BT disaster response is influenced. How operations can affect supply chain transparency missions. It created and evaluated six study hypotheses using data from an international non-governmental organization as well as the Office of the Coordinator of Humanitarian Affairs (OCHA). It showed that BT has a substantial and positive impact on operational supply chain transparency and that both of them combined have a big impact on creating ST, which in turn has a substantial and good impact on both cooperation (CO) and supply chain resilience (SCR). In conclusion, the technology can significantly contribute to improving CO through the development of ST among many players involved in disaster relief efforts.

According to Ismail Gölgecia and Olli Kuivalainen [17] managing a brand in a competitive environment that is growing more unstable requires resilience, or the ability to withstand setbacks and yet succeed. To further understand the possible effects of social expenditure on the resilience of this type of supply chain, the author has examined the roles of dynamic capacities together with marketing-supply inventory management synchronization. It examines the mediating function of absorptive capacity as well as the mediating effect of marketing-supply-supplier relationship synchronization utilizing data from dual responders from 265 Turkish businesses. It shows a significant positive relationship between supply network resilience and organization effectiveness, providing empirical support for the relevance of supply chain resilience overall company strategy. Absorptive capacity and alignment between marketing and supply chain relationships are essential for social currency to realize its full potential in promoting supply chain resilience and performance outcomes.

According to Michele O'Dwyera and Audrey Gilmore [18], strategic partnerships give organizations considerable possibilities, such as the chance to increase their skills and maximize value. The author used five Business to Business (B2B) manufacturing small and

medium-sized businesses as part of a qualitative study strategy. An in-depth analysis and the development of pertinent topics, such as customer focus and resource optimization, were made possible through a qualitative research approach. The study sheds light on the intricate nature of strategic partnerships for the B2B case small and medium-sized enterprises (SMEs), showing that these B2B manufactured SMEs place high importance on their relationships with customers and make good use of their resources to forge long-lasting competitive advantages. Finally, SMEs should be assisted in partner selection & alignment to increase the likelihood of successful and long-lasting alliances, which will ultimately increase SME sustainability and survivability.

The above study shows that brand management in a market that is becoming more turbulent demands the ability to endure, adapt and thrive in the face of adverse change. And Blockchain Technology (BT), also known as Distributed Ledger Technology, has attracted a lot of attention from all over the world and from various industries. In this study, the author discusses the costs and risks of strategic alliances and the benefits of strategic alliances.

3. DISCUSSION

When talking about this topic, begins with several theories that view supply chain management as a collection of interconnected and interrelated activities in which supply chain stakeholders aim to make decisions. Which will be most beneficial and economical for them. The idea of supply chain management began to take shape in the early 1980s. The definition includes administration networks as well as input methods that ensure the flow of data, but also natural resources between businesses and end consumers. To better understand supply chain management it is necessary to establish the foundation of a supply chain, which is a collection of businesses responsible for the movement and transformation of materials. The activities involved in material flow and processing from production to consumption are covered by the supply chain, and information flow is also included. It is a collection of businesses or organizations that manage the movement of products. Independent businesses oversee the transition of materials during the production process to vendors, manufacturers, transporters, wholesalers, marketers, and end users. The main characteristics of retailer-supplier partnerships are categorized in Table 1.

Table 1: Illustrating the Main characteristics of Retailer Supplier Partnerships in the Supply Chain Network.

Criteria Types	Inventory Ownership	New Skills Employed by vendors	Decision Maker
Quick Reaction	Retailer	Forecasting Skills	Retailer
Continuous replenishment by the vendor	Either Party	Retail Management	Vendor
Continuous Replenishment	Either Party	Forecasting and stock management	Contractually Agreed to Levels
advanced replenishment continuously	Either Party	Forecasting and stock management	Contractually agreed to & Continuously Improved Levels

3.1. Cooperation in Supply Chains and Social Responsibility:

Business collaboration appears to be a framework that enables information sharing and mutual collaboration between organizations. The importance of cooperation first emerged as a social change between two organizations where collective players were dominant. Organizations establish competencies and practices with one another as collaboration and networking increase, and they seek to further enhance activities that help them reach their objectives. Cooperation between two or more companies as a means of sharing information, accountability, cooperative action planning, and execution. It refers to cooperation that makes it possible to be successful, earn money and achieve a goal. One advantage of such company collaborations is that they become more effective by sharing information and working together.

Decisions are made by businesses or supply chain actors based on their expertise and desire to achieve success. They must also consider social responsibility in compliance with local laws, international laws, and understandings with other supply chain partners. The exchange relationship between suppliers with one organization in one country and buyers in another when there is strong communication, trust, and cooperation, is known as global cooperation when dealing with companies in those other countries. It comes in the original. Here, the focus is not only on sales and purchases but also on global corporate cooperation and social responsibilities. The planning, organizing, purchasing, production, transportation, and marketing or sales processes benefit from socially responsible supply chain actors. The notion of social responsibility distinguishes between constructive and destructive relationships; Favorable cooperation involves communicating information and helping the other organization, while negative cooperation occurs when information becomes difficult to exchange and one party deepens the relationship. It recognizes the importance of fostering and preserving relationships in corporate partnerships and their significant impact on collaboration.

3.2. Costs and Risks of Strategic Alliances:

When a company chooses a strategic partnership instead of going it alone, it pays some costs and reaps some rewards. Significant partnerships are not without risk, especially if the partners are not in similar financial standing.

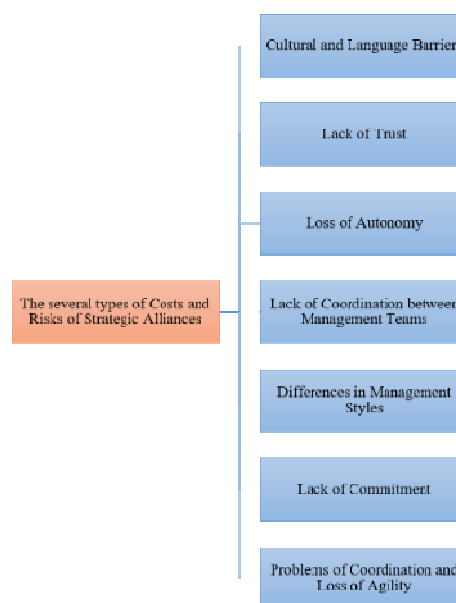


Figure 2: Illustrating the Various Costs and Risks of Entering into Strategic Alliances.

Losing functional control including jeopardizing the classification of personal data and innovation are examples of these threats. Some collaborations may inspire a conflict between corporate progressive systems or a sense of lost freedom. Likewise, conglomerates may lose potentially valuable future trading opportunities with opponents of their main partner. Parties must carefully weigh various parameters to decide whether to form a strategic alliance or not and also how to manage the partnership once it is formed. When forming a strategic alliance, the parties must take into account several accounting, tax, competition, and intellectual property challenges in addition to their shared economic goals. Strategically strengthened cooperation can enhance the development potential of both sides and open up a wealth of new possibilities. Additionally, it can offer a different source of funding during challenging economic conditions. The various costs/risks of entering into alliances include in Figure 2.

3.2.1. Cultural and Language Barriers:

One of the major issues facing the companies in the alliance is the potential culture clash. These cultural issues, including language barriers, inflated egos, extremism, and differing corporate philosophies can all make things difficult. Any linguistic barrier that may exist is likely to be the first problem. To be successful businesses need to be able to communicate clearly and understand each other; otherwise, they will fall short from the very beginning. Communication becomes really important when coordinating between the members of a strategic alliance. Sometimes language problems can lead to delays and frustrations. Nevertheless, English is spreading around the world. The fact that job descriptions in Western firms are generally more detailed than in Asian ones can also pose communication issues. Strategic partnerships are sometimes hindered by cultural differences, especially between Asian and Western businesses.

3.2.2. Lack of Trust:

The main strategy for building bonds in a partnership is risk sharing. It is necessary to create a sense of commitment during cooperation. In many cases, if the alliance fails, one company will blame the other. Blaming does not solve the problem; this only leads to conflict among the firms involved and usually leads to the dissolution of the alliance. Building trust is perhaps the most important and difficult aspect of a successful collaboration. Only individuals can be trusted, not any organization. The alliance should be formed to promote mutual trust. Businesses must develop the three main pillars of trust – responsibility, equity, and credibility. Many alliances fail because of a lack of trust that leads to unresolved problems, misunderstandings, and discouraged partnerships.

3.2.3. Loss of Autonomy:

The company is committed to its own goals as well as those of its associate partners. The financial cost of target displacement arises from this. In addition, the company loses its independence and with it, the power to decide its events on its own. In a coalition, each member is in charge of how things are done. Therefore, none of the partners can unilaterally decide how the alliance will operate. Likewise, each member of the alliance must trust the other. Conversely, businesses win from increased domain influence and better competitive positioning. This is because the strengths of the company are complemented by the strengths of the associate partner as well as the synergies that arise. This increases the business value chain of the company. The company can also use its strong competitive position to enter new markets within the same nation. Expansion in capacity can support the firm's representation in new markets. The company may also be able to access foreign markets by selecting an alliance partner with a presence or activities in such countries.

3.2.4. Lack of Coordination between Management Teams:

Actions by a subordinate that conflict with top-level management can be extremely disruptive when organizations remain competitive within their strategic alliances. If one of these firms decided to branch out and sell its items while the other two were still allying, this would form the basis for the separation of the two businesses, and they could enter into legal conflict, if it were it could settle perfectly, and could last for years.

3.2.5. Differences in Management Styles:

Failure to understand and adopt the new management style hinders the success of the alliance. Running an effective alliance requires a change in management approach. Implementing a new management style requires a change in company culture, and this change must be initiated and promoted from the top. Knowledge of alliance management processes, from collective bargaining to creating successful communications, requires more resources from businesses. They must train managers in a new set of competencies, such as foreign languages, as well as other communication and teamwork abilities. Cultural attitudes between firms are another issue that can arise in business alliances. One company may produce its product or service later than expected or perform poorly during production, which can lead to mistrust between the two companies. It may annoy the spouse and sometimes it may result in acquisitiveness.

3.2.6. Lack of Commitment:

The partner companies' possible lack of unwavering commitment to the partnership could harm its chances of success. Partner companies usually prioritize advancing their interests over the overall interests of the alliance. These opportunistic actions include running away, taking advantage of partner resources, falsifying information, harboring ulterior motives, and providing substandard goods and services. Lack of commitment to alliances is a significant portion of the total risk in strategic alliances as these actions substantially threaten the survival of the alliance. The individuals negotiating or administering the primary alliance arrangement may change as a result of promotion, transfer, retirement, or termination, which also reduces commitment.

Without a sustained, unwavering dedication to partnership at all organizational levels, it will fall short of realizing its full potential. There is a danger that the alliance will fail even if the participating corporation is fully committed to it. Elements that determine this risk include market characteristics such as fierce competition and fluctuating demand, external factors such as changes in government policy, wars, and economic downturns, and internal factors such as lack of knowledge or even that's just plain bad luck.

3.2.7. Problems of Coordination and Loss of Agility:

However, coordination issues are likely to result in delays in finding solutions to partnership ventures, and a cunning rival may take every opportunity of this vulnerability in any alliance. The adversary can combine several strategies to take advantage of each alliance partner's weaknesses, timing them in such a way that the other alliance partner's vulnerability is rapidly exploited before the next alliance partner moves to defend the alliance. Is. Thus a rival can influence such strategic relationships such that synergy acts oppositely. This will greatly strengthen the position of the rival in the market. On the other hand, if its new alliance partner is willing to supply the technology, the company under the strategic alliance will benefit from the ability to respond quickly to changing market needs. Reducing the time it

takes to implement a new technology helps a company gain a competitive advantage over its competitors.

3.3. Benefits of Strategic Alliances:

Strategic partnerships give businesses access to partners' capabilities, such as access to markets, technology, funding, and personnel, giving them a competitive edge in the new economy. Collaboration with others provides complementary resources and capabilities, helping participants to grow and thrive more quickly and efficiently. Strategic partnerships benefit businesses by reducing manufacturing costs and creating and accelerating cutting-edge technologies. Alliances are also used to overcome regulatory and economic barriers faster and to accelerate the release of innovative items. In this day of rapid technological advancement and worldwide markets, forming alliances is usually the most efficient and fastest way to achieve a company's goals. However, companies must ensure that the goals of the alliance align with their own so that their knowledge can be transferred to the alliance.

Fast-growing technology firms typically form strategic alliances to gain access to the more recognized marketing, distribution, or brand image networks of established, more well-known rivals. However, more traditional companies routinely form alliances for reasons including increased production, global growth, and supply-chain synergies. Even though the global market is becoming more open and competitive, medium-sized firms still need to be more inventive in the ways they communicate with customers and other stakeholders. Alliances are often formed by businesses that are more focused on the opportunity than concerning their broader objectives. This risk is greatest when a business has an excess of cash. Mercedes-Benz and Tata Motors have been pouring extra money into seemingly unrelated ventures for years, and as a result, Benz is already having problems. Collaborative efforts are important for firms looking to rapidly enhance their technical and operational skills. Companies increase production and save time in the process by not needing to start from scratch. Thus they can concentrate on the development of their core business.

4. CONCLUSION

A strategic alliance is an agreement between organizations to do business with each other that goes beyond normal company-to-company contact but avoids a merger or full cooperation. Strategic partnerships can range from direct trading of marketing and/or technology resources between the two companies. On the other hand, they can be quite complex and involve multiple businesses that are spread across multiple countries. A strategic partnership is gaining importance in the international economy. Through access to a partner's resources, especially markets, technology, finance, and people, a firm can gain a competitive edge. Through collaboration, participants can access additional resources and skills, accelerating their growth and expansion.

Companies benefit from strategic alliances by reducing production costs and accelerating the development and adoption of innovative technology. Future research should focus on increasing collaboration, expediting wealth transfers, and engaging the process with supply chain members through strategic alliances to gain flexibility. This is because the ability to collaborate and connect across the supply chain is considered one of the most important steps in getting the supply chain to a resilient state. To strengthen supply chain resilience, future studies could also examine the implications of strategic partnerships between suppliers and manufacturers on the production of the final product used by consumers or the services provided to them. It is also beneficial to study strategic alliances between competitors throughout the supply chain.

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CHAPTER 18

AN EVALUATION OF ELECTRONIC FUND TRANSFER WITH ASSOCIATED SECURITY THREATS AND POSSIBLE SOLUTIONS

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ABSTRACT: *The banking industry in India is striving to provide better products to its consumers and electronic money transfer is an advanced technology that is creating faster and better payment systems. Banks use state-of-the-art computerization and communication technologies to provide a well-designed, robust, and efficient institutional framework based on an effective payment and settlement system. Due to the significant security risks associated with Electronic Funds Transfer (EFT), such as website hangs, financial institutions are forced to take additional security precautions when using Automated Clearing Houses (ACH). It is important to consider precautionary measures that can efficiently and successfully reduce risk. While these systems are important, many financial institutions are unaware of the opportunity for fraud and credit risk when using ACH services. When the economy is in turmoil, bankruptcies, and failing businesses occur, and credit risk and fraud are extremely worrying. The goal of this paper is to discuss EFT risk issues and offer strategies to reduce the risk of those risks. Future versions of this paper will divide the knowledge between the benefits of EFT and privacy concerns. In the future, this paper will be separated the information about electronic fund transfer and its security threats with its solution. It will help others and provide a precautionary way to understand it.*

KEYWORD: *Banking, Data Security, Electronic Fund, Fund Transfer, Information Technology.*

1. INTRODUCTION

Electronic Funds Transfer (EFT) is a method of electronically transferring money from one bank account to another without using paper money. EFT is a collection of technologies that enable the completion of banking transactions using electronic signals as an alternative to the paper mode of transaction. One of the most commonly used EFT methods is direct deposit, which involves depositing payroll into an employee's bank account. In contrast, EFT refers to any type of electronic money transfer, including credit card, Automated Teller Machine (ATM), fed wire, or point-of-sale (POS) transactions. Through an electronic method, the system enables quick money transfers between bankers and banks. Most EFT systems use computers, telecommunications networks, and intelligent data files. Automated vending machines are already accessible for withdrawals and deposits around the clock at various locations. Electronic funds transfer (EFT) is a new method of payment that is expected to replace cash and checks as the preferred method of payment for services and goods, as well as a wide variety of financial activities [1].

Internet-based EFT is becoming more common these days and, in this scenario the customer checks in visits the bank's website, and opens a new bank account. Then, he somehow demands a certain amount to be deposited in that account. If both the balances of the customer are in the same bank, the funds are transferred to the other balance; otherwise, an ACH (Automated-Clearing-House) receives the transfer request and debits the money from the closed account [2]. Once the money is transferred to another account, the bank informs the customer about the financial exchange. With the emergence of electronic fund transfers, the development of deferred payment systems in Indian economies is increasingly adapting

[3]. Changes in customer expectations and money market valuations are the main drivers of change within this payment finance sector. The Internet market had the strongest significant expansion in the initial year. Payment systems have become increasingly sophisticated and technology-driven. To solve new issues, the financial industry must use modern information technology approaches [4]. This study deals with the challenges faced by consumers while using various EFT-based transactions. Technology is increasingly acting as a catalyst in the marketplace to improve the operational efficiencies of the banking sector [5]. The use of such technologies with faster telecommunications has recently been advised by several RBI Computerization Committees for innovation, growth, and competitiveness. Some of these electronic services in banking, which have come up recently, are described below.

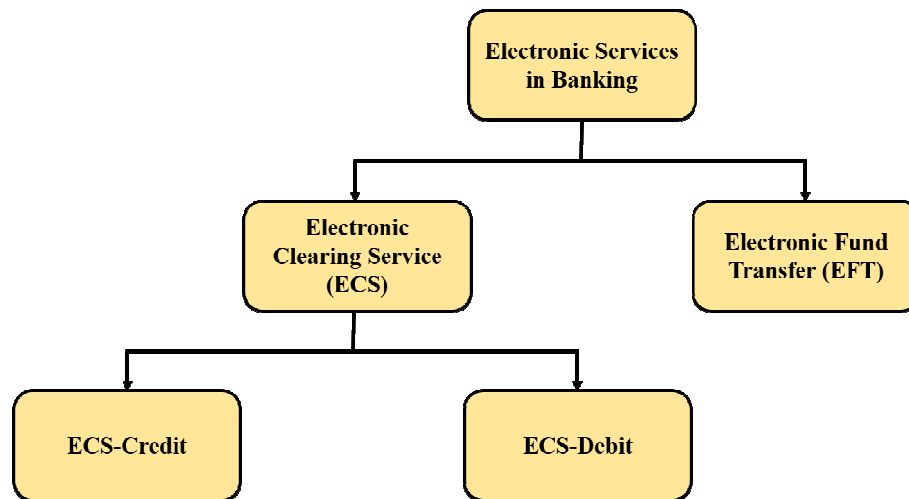


Figure 1: Illustrates the different Electronic Services in Banking.

According to figure 1, there is use some term that is Electronic Clearing Services (ECS) and Electronic Fund Transfer (EFT) are used which is an important part of online fund transfers all terms are described below:

i. Electronic Fund Transfer:

The paperless remittance technology known as Electronic Funds Transfer (EFT) between banks is a progressive step toward a reliable payment system. Using electronic methods, EFT enables financial institutions to transfer money from one bank, branch, or entity to another bank, branch, or hub, either at the same location or at a different location. BankNet [6] is a messaging system that is used to carry communication from one center to another. This facility has now become available in metro areas and probably other important centers, but will soon be made available in additional and important cities. The remittance is done through net clear between the commercial bank for EFT at the same center [7].

ii. Electronic Clearing Service:

According to the above figure, it is divided into two parts the first one is ECS-Credit and the other one is ECS-Debit. Both are described below:

- *ECS-Credit:*

Another flagship product in search of a bank transfer clearing successor is "Electronic Clearing Service (ECS)-Credit. When the ECS-Credit is used the data for such instruments or payments may be sent to the clearing corporation on a magnetic storage medium by commercial customers, corporations, etc., who will have to pay such monthly installments to

several beneficiaries. The awarding banks, where the dependents have accounts, receive credit instructions from the clearing House. ECS-Credit not only allows substantial time, stationery, and expense savings but also eliminates the possibility of interception of these documents and cash by unethical persons. Industrial Credit and Investment Corporation of India (ICICI), among other giant organizations, banks, and lending companies, now provide this capability to its shareholder and unit holders [8].

- *ECS-Debit:*

Similar to the technology mentioned above, Electronic Clearing Service (ECS)-debit is used for pre-authorized checking accounts. These are often used to pay utility wireless carriers such as Mahanagar Telephone Nigam Limited (MTNL) or Bharat Sanchar Nigam Limited (BSNL) for telephone bills, municipal corporations for water bills, and electricity for energy charges. Board etc. The system enables consumers or customers who hold bank accounts at facilities with the ability to pay their bills on time, avoid facing delays or other hassles and reach designated collection centers on time [9].

1.1.Types of EFT Payments:

There are various fund transfer payment options available as mentioned in Figure 2, and they all offer ease of use and quick delivery, which is why EFT has gained so much popularity. Although EFT is preferred globally, it is still necessary to be aware of the many methods that participate in EFT payments. The most typical forms of EFT are listed below:

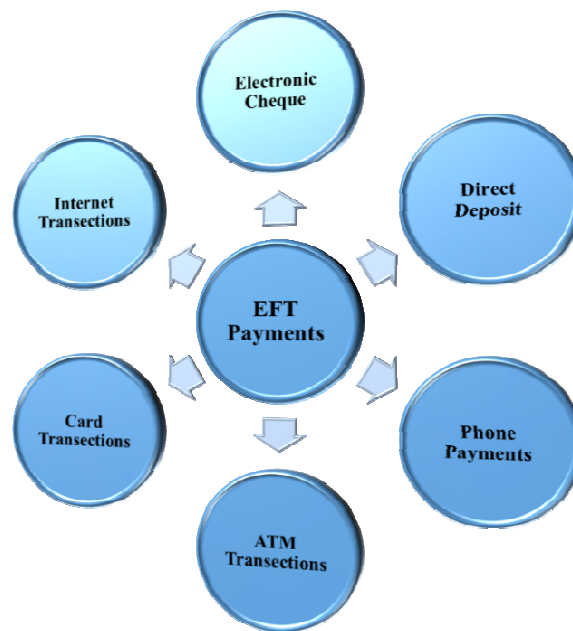


Figure 2: Illustrates all Types of Electronic Fund Transfer Payments.

- Electronic-Cheques:* On acceptance of the payer, a digital check is created in this payment. E-cheques are often used to make payments to vendors.
- Direct-Deposit:* With direct deposit, little or no preparation is required because the money is deposited into an agency immediately. This method is much preferred by professionals. Although continuous deposits usually never have to be completed, it does need to be established, which demands the purchaser's bank information as well as additional information to be entered [10].

- iii. *Phone-Payments*: This conversation is exchanged over the phone. Typically, the recipient will provide their information over the phone to the receiver, usually a card number. The recipient's line will be used for the transaction. After verbal permission, the recipient rarely takes any action. Utility payments often work like this [11].
- iv. *ATM-Transactions*: Automated Teller Machine (ATM) transactions are a joy, taking place at electronic kiosks available in municipalities and banks across the world. In this example, a person uses his debit card to withdraw money from his account by immediately inserting it into the machine, which simultaneously sends the credentials to the bank for authorization [12].
- v. *Card-Transactions*: Credit cards and debit cards have become the most widely used forms of payment, replacing cash when purchasing something at the point of transaction worldwide. This can be done in paper or electronic form and involves swiping, dipping, or inserting the card. During this process, payment information is processed electronically and withdrawal authorization is granted; Payment is then scheduled and made within a day or two [13].
- vi. *Internet-Transactions*: The equivalent of tapping, swiping, or inserting a card through the Internet is to manually submit the data into something like a sales box and then select a payment button. Similar to the above process, it means checking payment acceptance and transferring money for payment within a few days [14].

1.2.Mode of Electronic Fund Transfer:

After demonetization, people prefer to send money through electronic fund transfer methods. As they enable users to transfer payment transactions to and from their homes and places of employment using their phones and computers, electronic payment methods are becoming more popular. Additionally, it eliminates geographical barriers and enables faster and simpler cash transactions using Indian Financial System Code (IFSC) numbers [15]. Major electronic money transfers include the following.

i. National Electronic Fund Transfer (NEFT):

National Electronic Money Transfer is the most widely used electronic funds transfer technology in India. Depending on the value being transferred, banks may charge between Rs.2.50 and Rs.25. Any amount up to Rs.2 lakh can be remitted through the NEFT mechanism. NEFT option is applicable only during regular bank operating hours. There's no fast data transfer amount, and the required information includes the beneficiary's name, login information, and the IFSC code of something like the beneficiary's bank branch [16].

ii. Real-Time Gross Settlement (RTGS):

Real-time gross settlement, an electronic money transfer method, with a minimum of Rs. 2 lakhs to be sent to the account of a beneficiary. IFSC number, amount to be remitted, beneficiary identity and account information, and sender name and customer data are all required for RTGS. RTGS is time-consuming, and it usually takes thirty minutes for the deposited amount to be credited to the beneficiary's accounts [17].

iii. Immediate Payment Services (IMPS):

When money needs to be sent to a beneficiary's account instantly, instant payment service is a type of electronic cash transfer that can be helpful. The transfer can be completed using normal online banking, mobile devices, and ATMs. Beneficiary name, account information,

MMID (Mobile Money Identifier) number, IFSC (International Financial System Code), amount, and other details all need to be submitted [18].

iv. *Unified Payments Interface (UPI):*

Any smartphone with a virtual payment address will be used to make transactions up to Rs. 1 lakh thanks to UPI-compatible apps (VPA). Users can transfer money very fast and with very few processes, thanks to the applications. Secondly, funds can be sent at any time throughout the day or night, and activities are processed instantly. Using the UPI network to transfer money from person to person is free of cost [19].

1.3.Security Threats in Electronic Fund Transfer:

Security refers to ensuring the confidentiality, integrity, and use of information against improper or unlawful access to electronic funds transfer (EFT) systems. There is no convincing evidence that EFT systems have so far increased the higher-than-normal crime rate, even though the loss per theft appears to be larger than that of paper-based trading platforms. It seems that EFT has additional weaknesses compared to other financial transactions:

- Due to the complexities of the system, the use of data networks, the methods of extrapolating and transmitting data between sites and institutions, and direct interaction with customers, EFT systems have various points of access where purchases can be affected by the unauthorized method.
- Due to the type of files contained and how it is collected, individual transactions can be taken in cash relatively quickly without official valuation. EFT data also provide an additional source of stimulus because they have economic value over and above the value of money.
- Theoretically, large data banks can be wiped out by remote actors, making malice, extortion, blackmail, or violence possible.
- Some individuals may find the sporting aspect or development opportunity offered by an EFT offense as attractive as the potential for economic gain.
- Because money or data can be accessed or manipulated through hidden instructions in complex computer systems, it is often challenging to detect an EFT crime. The mechanism of the crime committed can be known only by a limited number of experts within the organization.
- The reason why EFT crime is underreported is that exposure can lead to a view of undermining system integrity, damaging corporations' reputations, or even increasing insurance costs.

The current framework of law is not fully adequate and otherwise appropriate to punish EFT offenses because EFT is a relatively young technology that poses much of a threat to older and more established banking systems, high levels of security seem to be critical to its continued development and application. For this reason, it is particularly dependent on public trust. Banking institutions that have already invested significantly in EFT systems and processes run the risk of losing stability if they are unable to win and maintain trust, including both individual and corporate users, in an age of rapid change. Despite widespread public concern, it is now impossible to trace the magnitude of EFT security breaches due to false reporting of EFT crime, an insufficient amount of information on EFT security, and a

lack of educated public discourse. Although the size of the loss in a single EFT theft can be much larger than in a typical theft from financial companies, the research now provided shows that an EFT security breach is not a serious issue.

The public has a right to know what risks individuals face when using EFT services, even if there are some dangers involved in making these issues more visible through political dialogue. So sharing knowledge about vulnerabilities, team positioning, and security-enhancing technology will help law enforcement officers and lending companies. Although current technology and methods are not as widely deployed, some feel that both solid management practice and study tools exist to effectively ensure EFT protection. To protect information technology systems, there is still no clear and complete set of industry-wide security standards. Institutions use various security protocols and protocols. While the data on the subject is scant, it is not outrageously expensive to provide a respectable level of security, at least on par with those available for paper-based trading platforms.

1.4. Advantages and Disadvantages of Electronic Fund Transfer:

The advantages of electronic fund transfer are the show that it is cost-effective and safe and convenient or the other side the disadvantage of electronic fund transfer is that there is the person can suffer with his debit card that is Debit cards are susceptible to fraud and other is sometimes it is not always immediate work.

i. Explanation Advantages:

- *Cost-effective:* EFT is a cost-effective solution for corporations to avoid copying paper checks and transport payments. EFTs remove the possibility of missing checks or interception in the mail, and they also eliminate the possibility of human counting mistakes and counterfeit invoices.
- *Safe and Convenient:* Regardless of the method you use as a customer, it usually takes very little work to send money. Additionally, it removes the need to physically visit the bank locations, thereby increasing the convenience level of the customers.

ii. Explanation of Disadvantages:

- *Debit cards are Susceptible to Fraud:* If you do not report the loss of your Debit or ATM card as soon as possible, you run the risk of losing money.
- *Isn't always Immediate:* Cancellations may take a few days or several weeks depending on direct deposit or people-dependent businesses and the nature of repeat purchases. Additionally, there may be charges, especially if you ask to stop payment.

In this paper, the author elaborates on the information about electronic fund transfer and the working process in the banking system. On the other side, the author side the author also describes all the security threats that might be happened in electronic fund transfers. If there are security threats available then there should also be prevention, which is thoroughly described in this paper. This paper also analyzes the pros and cons of electronic fund transfer in detail.

2. LITERATURE REVIEW

J. Katyayani illustrated that the financial industry is implementing several communication tools in its product and service offerings in the age of information technology and digitization. Because of this, the financial industry has emerged as an important area of research for user tolerance of the technology. There are many optional goods and services,

including online and mobile banking, cash deposit machines, ATMs, instant payment services, online investment advice, online money transfers, e-wallets, asset management, and peer-to-peer lending software. This research uses electronic money transfer modalities in an attempt to analyze how people adopt the technology in their managerial accounting choices. Users of electronic money transfer methods have a tremendous chance to learn about the true nature of industry risk, and high-quality risks like cyber security. This study mainly focused on how perceived capital expenditure, ease of timing, level of risk, customer experience, frequent use of automated tools, sociocultural factors, perceived, and perceived usability, and the relative benefit of using several cognitive factors are involved, including positive relationships. Investments influence the motivation of users to adopt and use technology [20].

R. M. Karmawan et al. stated that our ability to connect to a variety of channels has been made simple by technological advancements. Online access now enables customers to perform banking transactions that were earlier available only at branch offices, ATMs, and Electronic Data Capture (EDC) machines. Through the Mobile Banking App for Telephone, you can get bank details, transfer money, buy items using credit, and pay bills. This study aims to determine how the QR code of mobile banking can be implemented securely and effectively for payment transactions. To determine the level of system connectedness, studies of the literature and observations were used in the research. A common alternative to making cash payments and using a smartphone is the payment model QR code on mobile banking. The system created can be used for a combination of merchant and person-to-person transfers. As a result of this study, a prototype has been created for QR code payment on mobile banking. It can be used as an independent payment method and is linked to an account that holds the funds for transfer, reducing the need to top it up[21].

J. Mercurio et al. illustrated and evaluated how well e-banking met customer needs, as well as identified problems and needs of respondents with digital financial transfers, online shopping, and online payment interactions. The results indicated that when respondents were classified according to demographic structure, there was no major discrepancy in their experiences and challenges with online banking. There are notable differences in the challenges faced when shopping on the Internet when classified by gross income. Although the findings of the data may suggest that most of the respondents are still skeptical about using e-banking for regular, transaction fees, it is effective in providing good customer service even if the respondents believe that doing business online saves time, money, and effort. Additionally, internet cash transfer is reliable, and online shopping is supposed to be easy and fast. This research indicates that there are still attractive areas for growth in terms of integrating e-banking with the regular transactions of customers and potential customers.

3. DISCUSSION

Like any modern innovation, it will not be possible to clearly define the status of contactless payments. Ambiguities happen in both the institutional and technological worlds. The volatility of some payment systems, especially in the area of anonymity, is a methodological limitation. Severe sanctions are an example of institutional constraints that can occur even before the introduction of electronic banking systems. Another major obstacle is the reluctance of financial institutions to adopt new communication technologies, because of a paucity of investment money, especially in countries with weak financial institutions. The importance of obtaining customer approval is perhaps of paramount importance to expedite successful implementation. Although the technology to implement such solutions has been available for some time, it is only just beginning to impact the lives of existing customers. Only a few cities around the world have implemented a card-based biometric payment system beyond the trial program. But given the shortcomings of standard payment methods,

commercial enterprise trends indicate that contactless cards will eventually become slightly more prevalent. Although traditional payment methods cannot be completely replaced by electronic ones, there is a lot of space for potential growth.

4. CONCLUSION

The author has examined how financial transfers affect the Indian economy and the author found that sending money online quickly and securely from one provider to another provider. Therefore, having a digital work facility is essential for both commercial and public organizations as it saves time, increases productivity, and transfers money quickly. In addition, due to the security of this system regarding bank credit and certain other information of the institution holder, all private and government banks now collect fees from their customers online. This paper presents a secure online commerce system that uses steganography and visual cryptography. A process of biometric technology using cryptography guards against the theft of personal data and secure money transfers. This approach can be used in the long term for both physical and online banking as well as other extremely secure electronic fund transfer systems, as the hidden message is used on the banker's behalf, decoding and encryption to anyone. In the future this process of making secure payments very covert and immune to even the strongest cyber-attacks in the online banking system. So, there is no need for us to provide the cover picture to the bank as the steganography method adopted in this work is blind.

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CHAPTER 19

EXPLORING THE STRATEGIC THINKING AND DECISION- MAKING SYSTEM IN CORPORATE CULTURE

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ABSTRACT: *Corporate decision-makers are individuals who make decisions from a variety of options to fulfil the organization's goals and address problems. After determining the best solution for their position, they obtain information, assess evidence, and take action. Resources are also important aspects of business communication. Any strategic objective may be executed only if the necessary resources are available. As a result, choices about the creation and use of these resources are critical in the design and execution of the company's communication strategy. The results from decision-making help the business firm in managing the environment in the firm that makes the firm best at their profits and curriculum.*

KEYWORDS: *Decision making, corporate decision, Organization, corporations.*

1. INTRODUCTION

Decision-making is an important constituent of the modern organization. Necessarily, the main mission of an organization is balanced or good choice-making. Every executive variety must have no choices, whether subconsciously or deliberately, as the integral consideration in the purpose of a supervisor. In response to the new statistics and urgency-focused paradigm, modern businesses have created increasingly sophisticated structures and crafted more complicated decision-making methods, aided by increased communication and collaboration capabilities. Accountability suffers when decision-making bodies expand in size, and delegation becomes difficult owing to an overabundance of communication about prospective choices via Slack, email, Zoom, and other channels, with a chorus of voices expressing perspectives but no one guy claiming decision-making power.

A company's communication strategy is focused on developing planned communications that are compatible with its business purpose and vision, as well as with the corporate objectives outlined in its business strategy policy. Corporate communication strategy is thus the result of a strategic way of thinking and decision-making process involving various parties (the communication manager, the CEO, and the executive directors of other fully functioning areas in the organization), all of whom collaborate to shape and make these strategic choices. Executive and management are important constituents of contemporary organizations. Fundamentally, the main mission of the organization is having been balanced or good decision manufacturing. Every supervisor, whether they are conscious of it or not, takes many judgments that are essential to achieving their goals as an administrator. The establishment of such a categorization system, however, is the first step in developing an understanding of how industrial markets work. When they are acquired, the purchasing procedures might vary based on aspects such as the persons involved, the management structure, the character of the commodities themselves, and so on. Any such operation, however, normally involves three distinct industrial purchasing procedures. Any type of management wants a perfect management system. Everything depends upon trust, so to obtain trust and circle will have a better environment and decision-making stability to control the management.

The managerial process has been observed as a squared or to bring equilibrium with this procedure maintains the organization expanding together straight and inversely. It indicates that the executive procedure is directing for a convinced consequence. The purposes are prearranged commercial aims, corporate assignments, and dreams. To attain these objectives, the organization may confront several tests in the administrative, working, marketing, and active sectors. Subjects are resolved by a thorough decision-making process. No choice is a goal in itself since it may generate additional difficulties to tackle. Whenever one difficulty is handled, another arises, and so on, so that, as previously said, the making of decision process is uninterrupted and lively. Policy decision-making in the corporate strategy affects an organization's firm-specific communication resources and has long-term repercussions. Setting shared beginning points, for example, is particularly beneficial in establishing clear priorities, e.g. to guide future management and assessment of the overall communication policy. Managers, consultancies, and management experts are increasingly aware of the importance of organizational culture in affecting decision-making patterns and long-term organizational performance. Public Internet thread boards and forums, social networking sites blogs, and other similar tools facilitate the production and use of communication resources. Online word of mouth (opinions, experiences, recommendations, and criticism regarding products, brands, companies, and services) is included in consumer-generated media. Creating a page on a social network, for example, might provide a chance to include customer service feedback.

There is no empirical evidence to demonstrate that corporation's profit from having a strong human rights record or that firms with a negative human rights record are economically disadvantaged. The monetary and commercial dangers of violating human rights may be balanced by the benefits of investing in corrupt areas, and there is little evidence that firms are financially penalized by shareholders or markets based on their human rights records. Signing up for a human rights code can easily become a substitute for eliminating human rights abuses without challenging the power dynamics that create room for violations. Aside from institutional capabilities, there is the issue of who has authority in any governance structure. One of the disadvantages of a deliberative CSR strategy is that it tends to exaggerate civil society players' competence and authority and, while non-governmental organizations (NGOs) play an important role in fostering deliberative democracy, a critical approach to CSR governance does not presume that NGOs always have the moral superiority when it comes to environmental and social concerns. NGOs and civil society actors could not be profit-driven, but their authority and authority to represent underrepresented groups, as well as their objectives and intents, must be evaluated.

An organization's expansion both laterally and linearly can be maintained through the decision-making process and lower management. It indicates that a specific result is what the decision-making method is working toward. The goals are the organization's predetermined business purposes, missions, and vision. The organization may face several difficulties in the administration, logistical, marketing, and implementation sectors to achieve these goals. A careful decision-making procedure is used to solve such problems. No choice is a goal in itself since it may create additional difficulties to tackle. The decision-making procedure is continuous and active and changes according to the period. The decision-making system is so important because everything should be done in the correct manner and correct curriculum.

2. LITERATURE REVIEW

[1], the author Arif Parvaiz et al. Discussed Publicity Applications and Customers' Procurement Intention: The Role of Expressive and Balanced Applications. Advertising appeals are critical to the success of advertising in attracting or capturing customer

purchasing intent. This research looks at the diverse effects of publicity applications on customers' purchasing purposes. According to the study's findings, advertising appeals have a significant influence on customers' purchasing intentions. The study's hypotheses were all favorable. The findings of this study will aid corporate decision-making in developing and effectively implementing advertising appeal concepts for the promotion of a certain brand.

[2], The author Guohao Irfan Ahmed et al. Discussed Ordering dangerous achievement factors for the maintainable liveliness sector in China: A DEMATEL method. Sustainable methods, such as Corporate Social Responsibility, have become a necessity for the liveliness industry to implement across all of its commercial activities. Much research addressed CSR-related methods without investigating their epical success influences on a provincial scale. As a result, China, the world's largest energy user, has been chosen to examine the crucial success aspects of corporate social responsibility in the energy sector. The literature is studied in this study for the collection, which is validated and analyzed by specialists and case industrial managers in China. The 'Decision Making Trial and Evaluation Laboratory' approach was employed in this work for the analysis and display of influential CSFs to increase CSR.

[3], Pedro Ribeiro Antunes et al. discussed the macroeconomic backdrop as an enormously significant component for the development and expansion of enterprises, particularly in the hotel industry, where the performance of hotel firms is considered to be heavily reliant on the circumstances and macroeconomic environment in which they operate. Using a panel data approach, this study examined hotel company growth, size, the total number of visitors in the sector, revenue earned, and total wealth of the sector, using corporate indebtedness as a variable.

[4], Marzuki et al. Discussed Challenges in public participation and the decision-making process. Implementing the public involvement process is critical for democratizing societal principles as well as better planning and meeting public needs. However, the public involvement process is occasionally jeopardized by bureaucratic limits imposed by a lack of a systems process and an insufficient government administration system, both of which contribute to public alienation from the process.

[5], Esther D. Twenhöfel et al. Discussed Facilitating the Decision-Making Process After a Nuclear Accident: Case Studies in the Netherlands and Slovakia. Although nuclear accidents are rare, the biological, emotional, and/or economic effects can be severe. As a result, substantial planning for nuclear catastrophes is required to offer proper responses. It is critical to incorporate participants in the decision-making process during the transitional stage of an accident to gather support for the recovery plan to be executed as well as to contribute diverse perspectives, information, and opinions on the decision problem.

[6], The author Stefan Hasprova et al. Discussed The role of influencers in the consumer decision-making process. In today's globalized marketplaces, influencers play a critical influence in the purchase decisions of customers. Influencers have a substantial effect on customer attitudes and decisions due to their unique abilities, particular expertise, or character. This function is taken over by influencers in modern globalized marketing via social media, who influence customers with their ideas, attitudes, and views and so greatly impact designs in a request for convinced substances.

[7], The author Irene Palozzi et al. Discussed Enhancing the healthcare decision-making process: Findings from the orthopedic field. The decision-making method is part of the broader category of "clinical reasoning," which is defined as the entire process by which a clinician decides on therapies and care for patients. Several inherent characteristics of doctors

contribute to this decisional process. Very little is known about the function of these factors in eliciting biases in post-discharge judgments in the surgical sector.

3. DISCUSSION

Corporate decision-makers are experts who make decisions from a variety of options to fulfill the organization's goals and address problems. After determining the best solution for their position, they acquire information, assess evidence, and take action. They can make operational, tactical, policy, or budgetary judgments. They may be in charge of strategic choices such as capital investment, corporate development, or acquisitions. A capability is an ability that a separate, and consequently an organization, possesses that allows it to do tasks. Competency-founded planned organization is based on the assumption that convinced makings and performances are additional consistently displayed by policymakers and will be discovered, taught, and assessed. Thus, the idea of core competencies may be an appreciated background for examining how decision-makers make decisions that affect the organization's future. According to Jurov, the capability of persons in any sector to think tactically is constrained by the frames of reference with which they are most accustomed: the assumptions, beliefs, and acquired knowledge of a professional or institution.

The goal of strategic decision-making and thinking is to secure the organization's survival in a competitive environment. This requires excellent organizational thinking and decision management that directs the organization in the most suitable path. It is therefore critical for the process of successful decision-making, as detailed in the management approach, as well as the management and psychological literature both examine factors that may affect strategic decision-making. Due to of strategist's role to lead the team and implement the common vision once strategic consideration has taken place and a choice about the institution's future has been reached, management skills are also essential. However, without the capacity to give orders, each person would be working on their own rather than toward a single objective. Thus, thinking and acting strategically appears to need a range of skills. The list of abilities does not include decision-making skills, which are an essential part of the tactician's job and one that directs the business in the appropriate direction.



Figure 1. Demonstrates the steps of decision-making and strategic thinking.

Assessing the literature in both the management and psychology disciplines gives a better knowledge of how choices are made, the abilities needed, and the solutions that can be designed to help strategists overcome obstacles. The management approach's stated competencies require validation, which might be the subject of the future. After validating competencies, an approach such as the "psychometric objectivist" paradigm might be used. This paradigm underlies the hiring and development of employees. This enables the evaluation of strategic decision-making abilities as well as the identification of persons who are deficient in one area of competition.

Corporate values are also significant drivers of success in business and serve as decision-making factors. Inconsistent individual and organizational values can impair strategic leadership because strategists may not believe in the organization's values and beliefs and may be unable to operate within them. The organization may fail to consider the strategist's principles and views, creating a tough scenario when taking strategic decisions that will affect both the thinker making the decision and the organization. Corporations are obligated to work on and address strategic challenges in business and organizations. If a difficulty inhibits you from reaching your planned business outputs and advantages, it is strategic. In situations like these, it's advisable to avoid the desire to employ conventional thinking, which means that instead of diving in and immediately attempting to invent alternative answers, take a step back and first describe the problem. The real implementers play a key part in any corporate decision-making process because even the best-laid plans of top management can go astray if there is no support from middle management. As a result, many firms plan off-site meetings at beaches and other locations where senior management informs middle management of the decisions they have made and how they will affect the organization.

Corporate decision-making occurs at several organizational levels and is either top-down or bottom-up. The dissimilarity between these two management methods is that top downhearted executive occurs at higher levels of the organization and choices are transmitted down the career hierarchy to be executed. Bottom-up decision-making, on the other hand, is accomplished by delegating authority to middle and line managers to make judgments based on the circumstances and situations that exist in their lineups. Mining companies, being exploiting these economies with high technical inertia and a large-scale production structure, need enormous expenditures to ensure their long-term viability. In the current environment, an efficient system of investment in key areas of such firms' investment operations necessitates the employment of sophisticated economic and mathematical approaches and models. It is recommended that economic and mathematical modeling techniques be used to monitor the possibilities and hazards to the operation of mining operations. As a result of ongoing analytical breakthroughs, including economic risk modeling, it is prudent to construct scientifically founded strategy guidelines for the growth of mining firms in the global context. Every individual is settling every day, organizations must make strategic, operational, and financial decisions to fulfill their business objectives. Corporate decision-making can take place at several levels of the business and include a variety of stakeholders. Whether you are a manager or an employee looking to better your institution's decision-making process, understanding corporate decision-makers may be beneficial. This article will go over the function of corporate decision-makers, as well as the aspects and best practices of corporate decision-making.

Although corporations frequently rely on strong leaders for centralized decision-making due to their vision and abilities, corporate decision-makers may be found at many levels inside organizations. They can just be specialists at a higher hierarchical level, such as C executives and senior managers, who pass operational or policy choices down the company ladder. In

such circumstances, decisions are made from the top down. They can even be intermediate and line managers if the organization provides them with enough liberty. In such instances, managers may utilize the conditions in their teams to make day-to-day judgments about how to operate their teams. This is known as bottom-up decision-making.

The requirement for this preparedness is that the decision-maker grabs the situation and then appreciates it, as well as the capacity to make rapid judgments on the spot based on how the scenario evolves. Though the notion originated in the armed forces, it is now widely used in the business sector. The rationale for this is that the OODA loop and the concept of deciding what it implies is a good idea that may be utilized to improve decision-making. The work of decision-making includes an examination of strategic search. There are two sorts of search strategies: compensation and no compensatory search is an exhausting technique that is based on the mathematical average of the properties of each possibility. As a result, compensating searches need considerable effort since most or all of the relevant must be read, processed, assessed, and merged. Once the data load surpasses an individual's capacity to attend toward the knowledge capacity, no compensatory procedures rapidly restrict the number of feasible possibilities. Decision-making and strategy along with the recognized quality of material, enable an analysis of the adults' presentation at several phases of choice creation, spanning information assortment and answer generation. Our findings indicate that the amount of data one picks has a direct bearing on the accuracy of the judgments one makes. While this result is undoubtedly apparent, we scientifically demonstrated it.

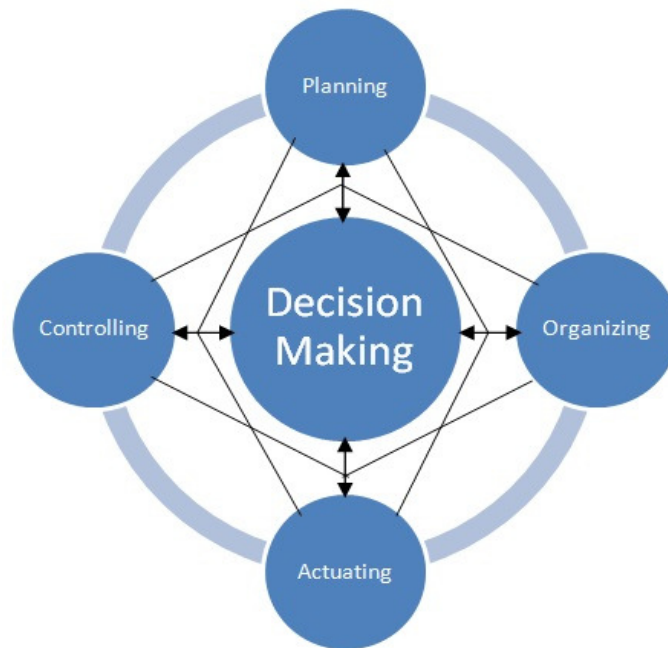


Figure 2. Describes the barrier points of decision-making.

4. CONCLUSION

A key factor that can determine success or failure is a company's ability to brand thorough decisions. Not all choices need to be made on the same day, or even within the first week, and not all selections are treated equally need a strategy, a plan of action, and a timeline to carry out such an idea. To use statistics to guide your actions, it is essential to determine which concepts are most beneficial to your company. Whenever making business decisions, it must contemplate together the optimistic and harmful belongings on the commercial and lean near constructive outcomes. This keeps the company developing steadily and keeps the

association from experiencing losses. Rational choice, escalation of commitments, time restrictions, ambiguity, biases, and disagreement can all be barriers to decision-making. Being aware of a topic and applying that information can aid in the removal of obstacles. It is critical to establish activities and measurements that represent older persons' everyday competency. To identify those who require decision-making assistance. Rather than just collecting age disparities, it is vital to connect age changes in procedure to almost variations in presentation consequences.

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CHAPTER 20

AN EXPLORATIVE STUDY ON THE ARCHITECTURE AND PRIVACY OF DIGITAL CURRENCY

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ABSTRACT: Any type of currency, monetary, or money-like object handled, stored, or exchanged is called digital currency, primarily using digital personal computers, especially the Internet. Crypto currencies virtual-currencies, and central bank digital financial institutions are some examples of technical currency types. Digital currencies such as bitcoin have emerged as an alternative to the traditional currency which is largely unregulated and disconnected from it. The key point of this essay is that, for investors who might otherwise prefer to buy gold or exotic commodities, digital money constitutes a dangerous new frontier. In the current study, digital currency is being taken into account from the perspective of asset value. The author studied price volatility in the context of bitcoin, as well as systematic risk, whereby seller fraud-related cash theft threats are excluded from the scenario. From this vantage point, despite its irrational enthusiasm, bitcoin does not pose a significant systematic risk, making it an attractive option to include in investors' portfolios. For students and some other scholars, this paper will eventually come to a satisfactory conclusion about crypto currency and its development and set aside reasonable facts about crypto currency. This paper will serve as a starting point for future work by other scholars, which will serve as a cornerstone for all future work.

KEYWORDS: Bitcoin, Central Bank, Crypto-currency, Digital Currency, Digital Transaction.

1. INTRODUCTION

Digital currencies are available only in electronic form and lack any physical features. Crypto currency transactions are linked to the Internet or specialized networks beyond computers or electronic wallets. In contrast, tangible currencies include specific physical properties and characteristics, such as the banknotes and coins that have been produced [1]. Only when these currencies are physically held in the assets of their holders are they derivative instruments. Like traditional currency, digital currencies are beneficial. They can be applied both to pay for services and to purchase goods. Some online communities, such as game sites, gambling portals, or online communities, may also have restricted access. Incredibly fast cross-border operations are also made possible by cryptocurrencies [2]. For example, if both companies are connected to the same network, a person in the United States may receive payment in crypto currency from a competitor in Singapore.

Virtual money bitcoin is a decentralized alternative to the traditional financial system. Since then, bitcoin has garnered a lot of attention. For example, it had a market value of over \$5 billion. All currency transactions are maintained in a blockchain, a distributed ledger, or blockchain, as a rule, an alternative to a system, like a bank, to track balances and increase trust in the currency. People maintain protected identities known as identities, which match digital certificates of Elliptic Curve Message Authentication Code technology in the case of receiving, storing, and using bitcoin (ECDSA). Transactions and address attempts are both anonymous, and if an address cannot be associated with its owner, it can normally be ensured by using a new, independent address. Bitcoin has attracted a lot of attention, especially because of its emphasis on financial privacy [3]. However, current studies have

changed significantly on bit coin's underlying information privacy. By viewing a picture of transactions in an accessible blockchain, they shed light on how user transactions and accounts can be linked. This begs the question of whether a user, Alice, can re-establish her financial privacy [4]. Alice can undoubtedly create a new, obfuscated address, but sending money there can connect the correct address to the previous one. As a result, Alice needs a suspicious way to send money from one address to another. There are several non-profit organizations' hybrid services set up so far to help Alice [5]. For example, she may transfer money to a composite service, which aggregates it with money from other individuals and distributes it after charging a nominal fee. Unlike the process outlined in no neutral observer can track the ownership of just one address on the blockchain. It should be highlighted what a passive observer can tell apart from other contemporary unmixed trades in the blockchain [5]. This is beneficial because it provides a great deal of privacy and helps individuals credibly deny their engagement in the situation.

Any currency, income, or money-like item maintained, stored, or exchanged primarily on a digital personal computer, especially on a website, is referred to as digital currency such that digital money, electronic money, or electronic currency. Also known as Cryptocurrencies, digital money and blockchain and digital currency are some examples of digital financial types [6]. Digital currency can always be saved on a store-value card, a consolidated electronic computer system held by a business or bank, a comprehensive Internet database, digital data, or even a distributed Internet data file. In general, crypto currency transactions lack the traditional physical characteristics of fiat money that you can hold in your hands, such as printed banknotes or fiat money coins, but they have a special shape in the non-classical sense, Congratulations on computer-to-computer and computer-to-human interactions, along with server information and computer power that stocks and keeps track of money. This non-traditional physical form allows people to conduct electronic banking almost instantly and dramatically reduces the cost of making coins and banknotes, two examples of the different forms of currency employed by the economy 3.05% are cash that is notes and coins, while 79.56% are digital contributions. Virtual currencies, which are often not issued by administrative agencies and are used to transfer ownership across regional borders, are not considered recognized cash (Figure 2).

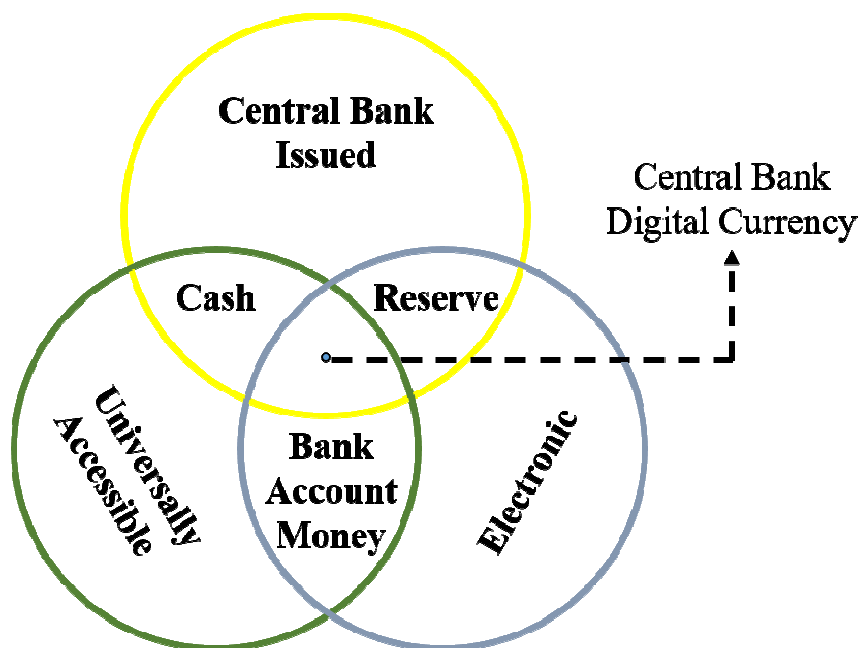


Figure 1: Illustrated the whole scenario of Digital Currency.

1.1. Taxonomy of the Digital Currency:

Although it is different from crypto currency, money held in electronic information, such as dollars in my bank account, is a decentralized crypto currency. This is because when making withdrawals, electronic money can be converted into an alternative currency, for example, using an automated trailer machine [7]. Physical retailers and online networks can use traditional money in its digital form to enable card payments, but there are some discrepancies between this and money carried in the form of real crypto currency. A central bank, the U.S. The central bank is accountable for generating and dispersing money in its current form, including digital cash on bank accounts [7]. Consider the dollar, which is the coinage of the United States. The Federal Reserve distributes the revenue that the Treasury has produced. A system of identification numbers is usually applied in sufficient variation to ensure that each record is unique (Figure 2).

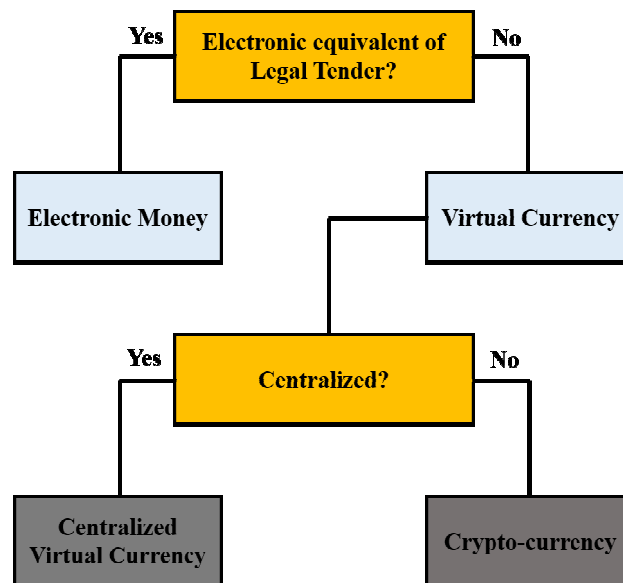


Figure 2: Illustrated the Taxonomy of the Digital Currency.

Cash is distributed throughout the economy through financial institution partners. A network of computers located using electronic bookkeeping is created to handle transactions in a crypto-currency such as a crypto-currency [8]. Usernames and banking transactions are often done anonymously using cryptography. A digital currency can be sent directly to customers, eliminating the middlemen commonly used by financial institutions and banks. If digital money serves as an instrument of trade, a unit of account, and then a store of value, the IRS describes it as a digital currency because it is marketed in the United States, the IRS recognizes bitcoin as a type of converting virtual money. Easily converted to American money [9]. In this case, receiving and transferring virtual money must result in taxable events, according to the Domestic Revenue Services.

1.2. Characteristics of Digital Currencies:

- As discussed earlier, cryptocurrency transactions are only available online. They do not have a physical equivalent.
- Both institutional and decentralized cryptocurrencies are possible. Fiat money is created and distributed centrally by central banks and other government agencies and exists in physical form. Independent digital currency systems include well-known cryptocurrencies such as bitcoin and ether.

- Digital currencies provide a transfer of value. The development of a framework for currencies, which links them to the sale and purchase of products and services, should be shifted to using cryptocurrencies. But crypto-currency is beyond thought. A gaming network token, for example, can grant a player more lives or stronger abilities. It signifies a transfer of value rather than a transaction, including a sale or acquisition.

1.3. Types of Digital Currencies:

The different types of banknotes that exist in the electronic environment can be referred to under the same term as "digital-money". There are mainly three types of currency:

i. Cryptocurrencies:

Digital economies known as "crypto-currencies" take advantage of cryptography to protect and confirm payment transactions. The development of such funds is managed and regulated through the application of cryptography. Cryptocurrencies include, for example, bitcoin and Ethereum. Currencies may or may not be regulated depending on the country. Because they are unregulated and exist only in digital form, currencies are referred to as virtual goods [10].

ii. Virtual-Currencies:

Virtual currencies are unmanaged digital currencies some of which are managed by developers or perhaps a founding group composed of various process participants. A defined network protocol could potentially be used to algorithmically administer virtual currency. A gaming network token is an example of fictitious money, and its economics are determined and managed by the developers [11].

iii. Central Bank Digital Currencies:

Digital currencies issued by the Reserve Bank are known as Central Bank Digital Currencies (CBDCs). CBDC can be used in addition to or in place of traditional fractional reserve banking. CBDCs exist only in electronic information, unlike physical cash, which also exists in physical form. Some countries are considering introducing digital versions of existing domestic fiat currencies, including Uruguay, England, and Sweden [12].

1.4. Privacy-Enhancing-Cryptographic-Techniques:

The author investigates using privacy-enhancing technology, similar to that utilized by privacy-enabling cryptocurrencies, to achieve privacy by design. There are a minimum of three options to consider:

i. Stealth-Addresses, Pedersen-Commitments, and Ring-Signatures:

Secret addresses provide a transmitter of value with privacy protection by separating the public key from the private key. Transaction information is stripped of ledger entries by Pedersen Commitments, which hides amounts transferred to persons other than those involved in the transaction. Ring agreements provide valuable data security to the sender because they make it possible to pass the signed information to a group of plausible signers without revealing which component issued the signature [13].

ii. Zero-knowledge proofs (ZKP):

Zero-knowledge performance, which can be used to preserve all transaction metadata, allowing one party to demonstrate to the other party that the claim is accurate without revealing any data other than the claim itself. The author anticipates that such operations

should be fast enough to cover the point-of-sale or e-commerce relationship between returns on their measured performance, although strong evidence to support this claim would be helpful. The non-interactive approach to ZKP provides significant performance improvements over their interactive alternatives [14].

iii. Blind Signatures or Blind Ring Signatures:

Concerning its users, the architecture presented in this work is not peer-to-peer; Nevertheless, we think it is also reasonable to include a blind signing technique similar to the one provided. To use this technology, beneficiaries of (spent) tokens must either immediately redeem them with both issuers or send a secret order to the issuer to deposit the money into an account set up for the recipient to give. Rather than just a single actor, the blind reacting issuer may be a group of players who act separately and separately, depositing or accepting funds from a common account whenever they issue or exchange tokens respectively [15].

1.5. Advantages of the Digital Currency:

i. Fast Transfer and Transaction Times:

Transfer speeds involving digital currencies are exceptionally fast because they often operate within the same network and transact without intermediaries. Transactions are often quick and cheap because payments made in digital currencies are made directly between the parties involved in the transaction. It performs better than traditional payment systems that employ banks or clearing houses and involve banks. The record-keeping and transparency of transactions required by electronic transactions based on digital currencies are also provided.

ii. No Physical Manufacturing Required:

The creation of actual manufacturing facilities is one of several prerequisites for physical currencies that are not required for digital currencies. Additionally, these currencies are resistant to physical flaws or messes that occur with real money.

iii. Monetary and Fiscal Policy Implementation:

To distribute money in an economy under the current monetary system, the Fed uses several intermediary banks and financial institutions. A government organization may be able to avoid this system and pay people directly by using a CBDC. By eliminating the need to physically create and carry notes from one place to another, they help streamline production and distribution processes.

iv. Cheaper Transaction Costs:

Within a network, digital currencies allow direct communication. For example, as long as the parties are connected to the same network, the consumer can pay directly to the shopkeeper. When compared to transactions using real or fiat currencies, digital money on the network also costs significantly less. Digital currencies can reduce transaction costs by eliminating middlemen who wish to profit from conducting transactions.

1.6. A disadvantage of Digital Currency:

i. Storage and Infrastructure Issues:

While not requiring a physical wallet, cryptocurrency transactions have their own needs for data storage and processing. A broadband connection, cell phones, and signaling routes for their provision are some examples. Digital currency management also requires high-security online tools.

ii. *Hacking Potential:*

Their digital origin helps to make digital currencies vulnerable to hacking. Hackers can take crypto tokens from online wallets or change existing protocols, making them ineffective. As countless incidents like hacking in crypto-currency have been established, the security of digital systems and transactions is an operation.

iii. *Volatile Value:*

Cryptocurrency transactions used for trading can result in extreme price fluctuations. The decentralized approach to crypto-currency, in particular, has led to the proliferation of insufficiently funded digital currencies, as valuations are susceptible to shocking changes based on consumer whims.

1.7. *Future of Digital Currencies:*

Although the value of cryptocurrencies, including bitcoin, has increased, most people use them to speculate or buy other fictitious assets. Despite some signs of acceptance of traders in countries such as El Salvador, cryptocurrency transactions are suitable for everyday use because of their high volatility and complexity. Stablecoins, whose valuation is tied to the price of fiat currency, has been deployed by many businesses to reduce volatility. Typically, this is done by depositing an equal amount of money, which can then be converted into tokens. There are questions about stable coin issuers such as Tether because they have used these deposits for riskier investments, which makes them more vulnerable to market downturns. Virtual currency currencies, which may be issued by a country's economic bank or monetary authority, still have some other potential uses. Similar to cryptocurrency transactions, these would be used and kept in an online wallet, but the central bank would be allowed to issue and freeze certificates as it deems fit. Several countries, including China, plan to create digital versions of the respective reserve currencies.

2. LITERATURE REVIEW

W. Tong et al. illustrated that the author looked at the development and rivalry of cryptocurrency transactions in the world from both a theoretical and a concrete point of view, and examined the design of central bank digital money (CBDCs). In addition, we study the economic impacts of something like a digital currency or electronic payment issuance based on a four-sector model to address the shortcomings in the current research. Research shows that while the unit effect can increase the rate of economic growth and indeed the overall economic impact is positive, the replacement of digital currency or payment cards on bank deposits has constrained results. Also, it reduces the corresponding leverage ratio to some extent, which is beneficial for mitigating systemic financial risk. Therefore, we argue that China should accelerate the study and creation of online money or electronic payments and introduce pilot policies to encourage them. Additionally, China should actively participate in the establishment of international rules for digital currencies, govern the jurisdiction of foreign nodes only in limited circumstances, and partner with other nations to establish an integrated Internet infrastructure for the following generations. should be constructed [16].

T. Marple stated that the fundamental economic technology Mudra is what empowers players inside and outside the country to fulfill their commitments. The technology of money has been continuously improved to meet the shifting purposes of human civilization, starting with shells and ending with metals and paper. Digital currencies represent another advancement in currency technology in the twenty-first century. Even though the economics literature has begun to specialize in cryptocurrency transactions, this research has mostly focused on a few

early examples, such as bitcoin. In this paper, the author reviews the corresponding history of cryptocurrency transactions, with particular emphasis on political power structures as well as economic inefficiencies. She then proposes a new typology to theoretically try to structure digital currencies along dimensions relevant to political economy experts, showing how to modify or modify some of the various crypto currency transactions along those specific dimensions creating more differences between, and concerning, exploring the implications of this typology. Finish with suggested research for the political economics of virtual currency based on this classification [17].

D. Kochergin stated the problems associated with the use of central bank digital currencies for bulk transactions and retail payments. The key component of Effective and Central Bank defines digital currencies and analyzes the most prevalent versions of these systems. The paper also examines the features of various national initiatives to issue central bank digital currency. The research employed comprehensive evaluation and economic statistics techniques. According to research, digital currencies issued by central banks are a new type of central bank currency. Digital currencies can be issued in a variety of issuance methods, for financial transactions or wholesale settlement. The direct system concept is the most attractive of central bank digital payment systems for retail payments due to its simplicity. With this concept, the Central Bank is independent of all banking and payment intermediaries. Models of synthetic and hybrid systems are the most attractive for implementation because they are distinguished by dependability and speed in processing multiple activities. The model of systems with only one universal digital currency may be best suited to address the primary shortcomings of existing cross-border payment systems among central bank crypto currency systems for industrial payments [18].

3. DISCUSSION

A digital currency with the potential to be a major participant in the cryptocurrency and online retail industries. This is a great alternative currency for gold enthusiasts who want to have currencies backed entirely by commodities. In addition, it could make it possible for groups that governments detest to receive funding, even if they are morally plausible or abhorrent, to have their assets confiscated or their financial contributors to be subjected to penalties. Without risk.

This is because it is pseudonymous and geographically spread, which makes it difficult to turn down. Although the history of currencies such as the Iraqi Swiss dinar in commodities or countries without a base suggests that bitcoin can flourish, potential users and entrepreneurs should be aware of the many dangers associated with adopting such a nascent technology. The fact that bitcoin is now in some sort of limbo is of paramount importance because of its digital form, bitcoin is exempt from legislation that is supposed to enforce the federal government's alleged monopoly on the issuance of money. However, a bitcoin may qualify as a security under The Securities and Exchange Commission, making it subject to a complex set of restrictions, such as general antifraud statutes. While the biggest argument is that the cryptocurrency is not a security, supporters of bitcoin should wait for a court ruling before knowing for sure. Additionally, there are potentially additional important legal concerns that have not been covered in this article, such as tax avoidance, non-franchise banking, state escheat laws, and money laundering.

4. CONCLUSION

The authors of this study propose an electronic money protocol for anonymous payments that would be regulated by the audit department. The alternative currency aims to be able to deploy anonymous electronic money and easily accessible auditors to better regulate

electronic money transaction history for users. The only thing the previous online currency accomplished was anonymity, which encourages criminal misappropriation of funds and a lack of monitoring.

Therefore, the design of electronic cash in this paper will not only satisfy electronic money when it adopts anonymity and help analyze, and realize the inviolability of electronic money but also better monitor electronic money. Digital currency is inaccessible to users, miners, and banks, and only the authorities have access to facts about its use and movement. Our digital money protocol can prevent double-spending attacks based on privacy and regulation.

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CHAPTER 21

AN ANALYSIS OF STRATEGY IN THE GLOBAL ENVIRONMENT

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ABSTRACT:*An expanded global perspective that takes into account every location's potential as a marketplace and as a source of competitive advantages both on its own and when combined with the remainder of the company, is the essence behind global strategic planning. The issues in strategy in the global environment such as environmental/ecological issues, social aspects, geopolitical, economical, and judicial issues. Hence the author focuses on the importance of global strategy in the environment such as permitting businesses to reach international markets, diversifying their operations, and adapting to local demands and cultural Cost-cutting demands, and local attentiveness pressures. In this paper, the author discussed the factor of strategic complexities when operating in a global environment. It concludes that because it may help you guarantee that your firm thrives in several countries throughout the world, creating a global strategy is crucial. In the future, emphasizes the need to establish an ethical business culture and have high requirements for vendors, in addition to the necessity of growing responsibly via strategy, specifically in nations that are still developing.*

KEYWORDS: *Business, Countries, Company, Global Environment, Markets, Strategy.*

1. INTRODUCTION

In the current world, genuine strategic considerations and strategy are frequently overlooked or undervalued [1],[2]. Although de facto strategic thought has been employed in military and administrative settings for thousands of years, there was no awareness or clear grasp of the phenomena of strategy [3],[4]. The genealogy of strategy is therefore discussed later in the chapter. Surprisingly, some influential businesses, governments, and military organizations continue to abuse, undervalue, or understand strategy [5],[6]. Even successfully navigating one's personal life necessitates having a strategic mentality and adhering to certain guidelines for developing and executing strategies [7],[8]. It contends that elements crucial to this strategic mentality and strategy-making process may be taught [9],[10]. The conceptual foundations and historical context of the strategy model, as well as crucial strategic factors for contemporary organizations, are discussed in terms of bringing strategy to the fore of business, governmental, as well as military decision-making, where it must stay to bring about improvements in the complex global community [11],[12].

Major failure in all of these areas of human activity may be linked to the predominance of operational and tactical decisions and routines, rather than concentrating on the expansion of long-term strategic alternatives and success vectors [13],[14]. When a corporation chooses a global strategy, typically sacrifices its capacity to adjust to local market conditions in favor of efficiency. This strategy is the opposite of a multi-domestic one. With both the probable exception of certain minor variations in goods and services in other locations, a global strategy stresses the need to exploit economies of scale through offering essentially the same items and/or services for each market. After instance, Microsoft makes the same software programs accessible globally in a variety of languages. Corresponding to this, consumer electronics maker Procter & Gamble seeks out every chance to establish global brands in order to boost production.

For organizations like silicon chip producer Intel, whose assistance or item is for the most part disguised according to the client's point of view, worldwide methodologies can likewise be exceptionally compelling. Variety in neighborhood tastes little affects these organizations. Figure 1 demonstrates how the difficulty of formulating plans and making strategic decisions is increased by the unpredictability of the global corporate environment. This makes the operational environment more difficult for strategic managers and affects how the economy responds to trends like globalization and rapid technological advancement. This shows that there are dangers and challenges associated with such operational complexity. The commitments, choices, and moves a company must make to become successful and provide above-average results and returns are referred to as strategic management. The first step in the strategic management approach is to conduct an internal and external examination of the firm to ascertain its resources, capabilities, and key competencies. The strategic management concept and process, which includes strategy assessment, strategy development, and strategy execution, will be explored in this module (Figure 1).

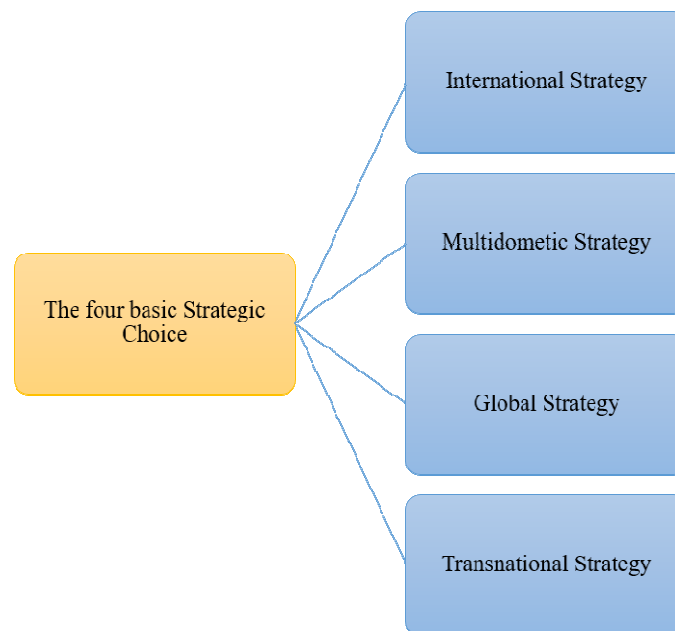


Figure 1: Illustrates the basic strategic choice which provides the transfer of distinctive competencies to foreign markets.

The present paper is a study about the notion of strategy that stems mostly from military contexts and sectors, but it has been used in commercial contexts as well, where several writers and scholars have disseminated discussions and debates on strategy relating to both quantitative and qualitative representations and processes. This study is divided into several sections, the first of which is an introduction, followed by a review of the literature and suggestions based on previous research. The next section is the discussion and the last section is the conclusion of this paper which is declared and gives the result as well as the future scope.

2. LITERATURE REVIEW

Pol Morillas [15] has explained that the inter-institutional mechanisms of European Union (EU) foreign activities are effectively described by the new inter-govern mentalism. This article makes the case that de novo organizations like the Vice President (VP) and also the European External Action Service (EEAS) have continued to increase their autonomy in the historically intergovernmental EU international and security policy initiatives despite the

fractious and crisis-ridden complexities in European integration and external action. It was revealed that the European Union Global Strategy (EUGS), both in terms of the scope of policies covered either by the new approach or its method of formulating policy, had allowed the Vice President to use her right of initiative in foreign action. In conclusion, the modern inter government mentalism recognizes that new policy ideas always have their origins in intergovernmental organizations like the European Council and the Cabinet.

Isabel Gallego-Alvarez and María Consuelo Pucheta-Martínez [16] have examined environmental disclosure within the banking sector while taking into account the various forms of capitalism. The method is backed by earlier research and therefore is based on a worldwide sampling of nations with coordinated market economies (CMEs) and liberal economic systems. It is concerned with how corporations engage strategically to overcome coordination challenges resulting from their operations (LMEs). The findings indicate that banks based in LME nations are less engaged in environmental issues than financial institutions functioning in CME nations. The study concluded that having women on bank boards in CME nations encourages the disclosure of environmental data.

Farok Contractor [17] et al. have explained that a thorough grasp of global strategy is by its very nature multi-level, requiring complex relationships between what occurs at various levels. The micro fundamental research technique has been slow to emerge in the global strategy sector, and the vast majority of studies still use nations and companies as their primary units of analysis. It was discovered that the main driving forces behind this special issue were the growing emphasis on examining underlying reasons as a sign of sound scientific interpretations and the growing interest in multilayer theory and empirical pieces of evidence. In conclusion, research on the micro-foundations of global strategy may become more significant in the areas of international management, company, and strategy.

Peter Záborský [18] has explained that the global business climate is becoming more uncertain as a result of political disturbances like Brexit and the US-China trade war as well as technological and other changes that are upending company plans. Organizational capacities must be developed by businesses to handle the increased uncertainty of the business environment. In most sectors, a dramatic reassessment of business strategy and the development of new competencies are now necessary due to the emergence of digital disruptors from both the west and the east.

Creates a useful framework that summarizes three categories of essential competencies that firms should develop to flourish in the face of global uncertainty. It indicates that driving the marketplace, which calls for placing calculated bets and hedges and combining a company's resources beyond borders, is the second talent for succeeding in an unpredictable environment. Through internal investment and acquisition of cutting-edge businesses like GitHub and PlayFab, it made strategic bets in industries including cloud services and internet gaming.

D. J. Teece [19] has explained that an implicit presumption that capitalist economies are inherently more or less similar has guided the development of the area of strategic management. The fields of sociology and economics have a significant effect on many academics of strategic management. As a result, they have also acquired the flaws of these areas, which provide insufficient attention to important concerns of business and global governance.

It demonstrated that there is a problem that has to be rectified, and academics of strategic management, CEOs, and board members were somewhat to blame for failing to call out these short-term actors and for failing to fight for boards that would support the long-term. The

area of strategic management is inhabited by intelligent, well-paid, and sometimes very well-funded academics who have a responsibility to the larger community to address these concerns.

The above study shows that the. In this study, the author discusses the strategic differences for both domestic and global environments, and international market evaluation.

3. DISCUSSION

The actual process of developing a strategy often involves two stages: strategy formulation and then strategy execution. Companies determine their global objectives while strategizing, then develop a plan that will help them achieve those objectives. Managers come up with, alter, and ultimately confirm strategies for entering and participating in new markets throughout the planning stage. Managers need to take action to get a plan put into practice after it has been decided upon. Therefore, this step entails deciding when to start international operations, in addition, to doing so and putting the other elements of the global strategy into effect. More precisely, the assessment of the organization and its environment, the setting of strategic goals, the creation of action plans to reach those goals, and the development of a control framework are all part of the first stage of strategy formation. A firm can evaluate what markets, goods, services, etc. provide prospects for growth by evaluating both itself and the global business environment. This process entails gathering information about a company and its surroundings, including facts about global markets, law, productivity, costs, and competitors.

As a result, data collection should give managers information of other countries' economies, finances, politics, legal systems, and social systems as well as their markets for various commodities and services. And use this information, managers may choose which items and markets provide the best chances for worldwide expansion. The next step is for managers to set strategic objectives, which have been the significant goals a company attempts to achieve through a specific undertaking, such as beginning a new local market. These objectives must be attainable, quantifiable, and time-bound. Companies should create plans that enable them to achieve their goals once the strategic objectives have been set, and these plans should focus on how they will accomplish strategic plans. The method management utilizes to assist guarantee that a business stays on the proper track when implementing its strategic plans in Table 1 is known as a control framework, which would be involved in strategy creation. As the strategic plans are put into action, the control structure fundamentally reacts to numerous developments. For instance, if sales fall short of the strategic goals' predicted sales, the firm may step up its marketing efforts as well as temporarily cut its pricing to encourage more sales (Table 1).

Table 1: Illustrates the differences in Strategic for both Global and Domestic Environments.

S.NO.	Factors	Domestic conditions	Global condition
1	Government	Stable	May be unstable
2	Culture	Homogeneous	Heterogeneous
3	Marketing	several mediums, minimal limitations	There can be fewer media and more limitations.
4	Currency	Uniform	different monetary systems and

			exchange rates
5	Language	Usually a single language	different dialects and languages
6	Economy	Stable and uniform	maybe erratic and unexpected
7	Labor	skilled personnel are on hand	It could be difficult to obtain skilled staff.
8	Transport	several rivalry-based modes	may not be sufficient

3.1.Strategic Complexities when Operating in a Global Environment:

The most common way of advancing change and achieving long haul targets notwithstanding aggressive difficulties, intricacy, and vulnerability is alluded to as methodology. Intricacy results from the capricious nature, equivocalness, and difficulties that supervisor's face while working in a worldwide setting. A monetary climate is worldwide in light of the fact that requirements to exchange all over public limits are compelled to eliminate to improve the worth reconciliation of creation/activity methodology and monetary business sectors, as well as the progression of monetary asset base, mechanical advancement/innovation, figuring out, work, societies, items, and administrations among various countries, in this manner encouraging worldwide exchange and financial turn of events. This demonstrates that organizations and nations will be connected, successfully dispensing with public wildernesses. Innovation progress, better transportation foundation, territorial economic alliance, and different variables have all added to the globalization of business sectors' financial rivalry. Subsequently, organizations and nations are related and interrelated, making a convoluted framework. It is difficult to examine, comprehend, influence, and anticipate the behavior of a complicated system. Due to the turbulence (rapid unexpected changes) and uncertainty (unpredictable nature) of the network, this makes it is difficult to make strategic decisions. The PESTEL framework shown in Figure 1 can be used to explore the strategic difficulties in such a system.

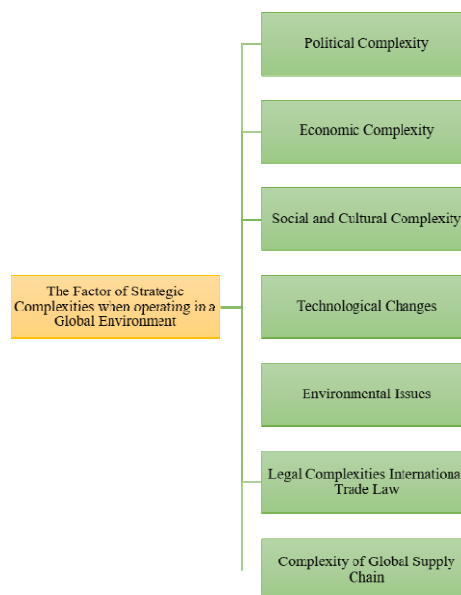


Figure 1: Illustrates the Factor of Strategic Complexities when operating in a Global Environment.

3.1.1. *Political Complexity:*

Governmental issues presents challenges for the executives when they make arrangements to accomplish long haul targets. For example, they could find it challenging to anticipate whether the drawn out political environment will remain stable or whether and when charge regulations would change. Political equivocalness makes vital arranging troublesome attributable to the powerlessness to conjecture changes in such circumstances. This exhibits that overseeing in a worldwide setting opens supervisors to political worries as essential entanglements. Supervisors probably won't know about whether the US would remain an individual from the North American International alliance (NAFTA) there under the current organization, practically identical to the US military pullout from Syria. Vital preparation and independent direction are convoluted by this equivocalness. Organizations working in immature countries, whose legislatures might tumble from power out of the blue or persevere for a really long time, manage a comparative degree of unconventionality. This is an issue since it is difficult to conjecture how unfamiliar exchange decides will foster given that, for example, the eventual fate of most African states' legislatures is obscure.

3.1.2. *Economic Complexity:*

Anticipating the heading of financial powers is testing. This exhibits the level of vulnerability in the worldwide economy and the justification for why financial projections could once in a while end up being erroneous. Worldwide organizations are contemplating whether they will keep on working in the UK after Brexit, for example, given the unsettled worries encompassing Brexit. Along these lines, a few organizations have moved their corporate workplaces to other European countries, while others have quit working in the UK. The UK's future is capricious, for instance, about whether paces of interest will be worthwhile or troublesome, whether expansion will be controlled or will be obliterating, and whether the economy will keep on creating true to form or there will be a slump.

It is very challenging to expect in the event that the country's work and exchange arrangements will be maintainable and worthwhile for business in the future with such perplexing issues. This exhibits that organizations working in a worldwide setting stand up to different vital difficulties, including financial challenges. A company's financial performance will be impacted by the path the exchange rate takes in the wake of Brexit. For businesses functioning in a worldwide setting, such as McDonald's, Honda, Coca-Cola, etc., currency uncertainty is a major source of strategic complexity because currency values can move drastically and produce financial market volatility dependent on the news.

3.1.3. *Social and Cultural Complexity:*

Because of moving way of life patterns, worldwide socioeconomics, client inclinations, strict convictions, and corporate social obligation cognizance, sociocultural worries are a wellspring of vital intricacy. While answers for these worries probably won't occur rapidly, the speedy data course through web-based entertainment could make capricious changes client inclinations. Since culture and values are only not generally confined by public limits, there is a decrease in the variety of societies. For example, because of the development of data past public limits, African countries have started to be influenced by Western social thoughts and convictions. This recommends that a business that fosters a methodology to speak to African convictions and values would be frightened to see that the item it markets doesn't measure up to clients' assumptions. Subsequently, organizations might experience enormous misfortunes because of moving social standards and client inclinations. Because of the variety of client tastes inside a specific ethnic gathering, it has become decisively testing to conclude whether such an organization ought to tailor or normalize its items. Firms

working in a worldwide setting face an elevated degree of vital intricacy because of this assortment and unpredictability. To oblige an extensive variety of client tastes, organizations should think internationally and act locally.

3.1.4. Technological Changes:

Various countries take on specialized progresses at different velocities. Along these lines, the speed of progress and its impact on business activities is questionable, adding to the essential intricacy. As a representation, a few countries force web access limitations to control the progression of data. Indeed, even while their legislatures might declare that it is for security concerns and the safeguarding of a country's social practices and convictions, it very well may be finished for political benefit. This implies that organizations should evaluate whether a country is probably going to embrace innovation progressions and let organizations capability consistently later on. This might be testing, especially when the political environment of the country is temperamental all by itself, adding to the vulnerability encompassing vital independent direction and choices. Web based business has been supported by innovation. E-commerce Company's such As amazon have further developed execution and are as of now procuring organizations that utilization traditional in-rack business methodologies. This recommends that mechanical progressions have improved the degree of rivalry, making it feasible for another web based business organization to contend furiously against a current organization anyplace in the globe. Along these lines, because of mechanical progressions, vital contest investigation has developed more troublesome.

3.1.5. Environmental Issues:

Ecological worries might turn out to be more troublesome decisively as individuals become more aware of the requirement for maintainable assembling and green activities. At the point when it is resolved that an organization's tasks represent a gamble to the climate, ecological activists, for example, Greenpeace might hurt the organization's standing. Indeed, even while ecological assurance, energy effectiveness, and garbage removal rules are perceived all around the world, not all countries in every case carry out them. Because of this, organizations act contrastingly contingent upon how ecologically concerned a country is. Such variety in ecologic and natural cognizance is without a doubt a wellspring of vital intricacy since neighborhood activists might raise worries that could bring about an overall blacklist of an organization's labor and products. This is conceivable given that web-based entertainment destinations like Facebook and Twitter permit data to navigate worldwide boundaries in a split second.

3.1.6. Legal Complexities International Trade Law:

Various countries work under different general sets of laws. For example, precedent-based regulation, common regulation, and, surprisingly, strict regulation (like sharia). Since it very well might be trying to foresee which regulation would apply in certain countries, the variety of establishments is a wellspring of vital intricacy. For example, organizations can't anticipate whether the general set of laws, strict regulation, or even a blend of both would be the country's arrangement of the law coming because of the development of ISIS in different countries. This restricts organizations' ability to foster wise vital methodologies, decisions, and determinations. In several cases, the International Criminal Court (ICC) has issued demands that a particular current president is detained, and nations have disregarded such demands. This demonstrates that businesses operating in a global setting must deal with a variety of foreign laws that have different enforcement standards.

3.1.7. *The complexity of the Global Supply Chain:*

It is significant to recollect that the information sources (materials, aptitude, and data) stream are convoluted as they go from the underlying source through the creation and improvement interaction to the end-client or client. This is on the grounds that it is trying to make due, coordinate, and control the different and dissipated entertainers who make up worldwide stockpile chains to support efficiency and save costs. Certain information sources are bought by organizations from merchants whose exercises are outside their nearby control. This limits managers' capacity to develop wise strategic strategies, judgments, and selections. Global supply chains consequently contribute to strategic complexity.

3.2. *International Market Evaluation:*

While many elements of international strategy and how it is developed are comparable to their domestic equivalents, other crucial elements are not, necessitating the use of various techniques and information types. One of these important differences and an essential step in creating an international strategy is learning about global marketplaces. A corporation has to be aware of the market's characteristics to enter it, gain market share, and therefore boost sales and profits. A business must first look at several markets, weigh the benefits and drawbacks of joining each one, and then choose only those that have the best chances of expansion and entry. A corporation should take into account each market's potential, as well as its competitors, regulations, and cultural aspects. By gathering information on the gross domestic product (GDP), per capita GDP, demographics, connectivity, and other statistics of various nations, business managers may evaluate the market potential.

Managers will be able to assess the purchasing power of customers in each nation and decide whether or not that purchasing power enables them to access a company's goods or services. Using papers from the home nations to estimate currency value and variation over several years can help managers assess the exchange rate stability of the various markets. Management should also take into account the level of rivalry in various markets and should foresee potential competition in them when choosing the ideal markets for entrance. Identifying all the businesses that compete in the potential markets, as well as company sizes, market shares, and pricing, is necessary to determine the level of competition. The number of rivals, their characteristics, and the market environment i.e., whether the marketplace is saturated with competitors and unable to sustain any new entrants should therefore be taken into account by managers when evaluating a potential market.

4. CONCLUSION

Utilizing corporate resources to effectively compete in the targeted markets is the focus of the next element of the global strategy. The relative relevance of various firm functions is also determined as part of strategy development, and this information is used to determine how resources are allocated.

For instance, a business can choose to divide its resources among several product categories or regions. Executives must then assess whether the company can get a competitive edge over other businesses in the sector. By identifying what the firm does better (or could do better) than just its competitors, management may determine its comparative benefit. A variety of strategies, including the use of superior technology, the implementation of more effective organizational processes and distribution networks, and the development of well-known brands, can help businesses gain this advantage. This part of the strategy entails not only identifying current or future sources of competitive advantage and also creating a strategy for keeping those sources alive. Finally, a company's global strategy should include developing a

plan that will allow its diverse activities and roles to complement one another. International travel & communication are now easier and faster thanks to technological advancements. The globe has become smaller because of increased communications and travel. People are more prone to travel and become more aware of things occurring outside of their nation as a result of a smaller globe. A greater grasp of international prospects is the outcome of increased awareness and travel. Increases in international commerce, and investment, as well as the number of multinational corporations, result from a greater awareness of opportunities. These gains indicate a closer integration of the global economy.

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CHAPTER 22

AN EXPLORATIVE STUDY ON MASS MEDIA COMMUNICATION AND ITS SOCIAL IMPACT

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ABSTRACT: *A wide range of media and technology that use mass communication to reach a wider audience is called mass media. The technology used for this communication covers a wide range of sources. In broadcast media, electronic information is sent by media such as films, radio, soundtracks, or television. The main goal of this essay is to explain the function of modern communication and how it makes the idea of a mass society viable. How it functions and how it affects modern times is the question. Globe now connects communication technology through integration in such a way that everyone experiences omnipresence. As many nations of the world gradually become more equal and international borders are being eliminated by electronic highways, the information age is dominating all aspects of life. This presentation will suggest a communication-driven economy in the future, in which economic prospects are not constrained by space, time or space due to technological advances. Everyone live in a world that is rich in media, where practically everyone has virtual access to a wide range of media and content.*

KEYWORDS: *Broadcasting, Communication, Mass Media, Social Media, Television.*

1. INTRODUCTION

Huge amounts of cash are spent each year on materials and wages, for the production and distribution of brochures, pamphlets, performances, newspaper articles, television and radio show shows, and other types of mass media. At all levels of public health, these media are used with the hope of achieving three goals: the acquisition of accurate health knowledge and skills, the revision of health standards and beliefs, and the creation of new health outcomes [1]. The use of mass media advertisements to include all current media, including television, radio and newspapers, introducing high proportions of large populations to communication has long been a way of enhancing public health. Over the decades, multiple topics and target groups have been incorporated into communication efforts [2]. An early breakthrough in the literature is a list of reasons why information initiatives fall short. Therefore, engagement with such messages is often passive. Such operations usually face competition from features such as ubiquitous propaganda campaigns, strong social norms including habitual or addictive behavior [3]. The main goal of intervention strategies has often been to change people's knowledge, perceptions, and attitudes, to help influence people's actions. The notion that such advertising alone will change people's behavior has often not been very high [4].

According to theories, campaigns using mass media are most likely to eliminate psychological issues if their messages are supported by complementary initiatives like other preventive health care measures. Law enforcement movements, grassroots initiatives, and a few other media messages can all amplify the impact [5]. Objectives to promote public health are the subject of a significant body of literature. The usefulness of health communication strategy will be a topic that has attracted much theoretical and empirical literature. Mass media advertising campaigns have often been part of larger health education programs with interdependent factors:

- Organizing and assisting colonial empires and specialists who have immediate communication with members of the target community.
- Building relationships between groups of corporate, non-profit, and corporate organizations as well as professional organizations.
- Educating and providing public information while changing the thinking environment around it, while setting parameters for dialogue on the issue of health.
- Support state and federal policy reforms to provide an enabling environment where consumers are more willing to change their behaviours.

Important ideas in this essay will be the difference between communication campaigns and mass media campaigns, the difference between promotional messages and advertising, and the relationship between communication campaigns and exposure [6]. The success of public health employing mass media communication will be the later emphasis of the chapter.

1.1. Communication Campaigns vs. Mass Media Campaigns:

The terms campaign, communication campaign or program, media or mass media campaign and intervention are often used interchangeably. There are many regional differences in what is understood by these descriptors, and no definition accurately encompasses a healthcare network [7]. Although there are many definitions of public relations campaign in the literature, the following components are important.

- A campaign is clearly designed, and its precise results will range widely from cognitive processing effects to social or fundamental change.
- A communication program is directed to a significant audience; Note that the term large is used to distinguish it from personal marketing communications by one person attempting to influence only a limited number of individuals.
- Time limit has been set for interpersonal communication. This does not mean that all advertisements are unsuccessful. For example, the inaugural Stanford-heart-disease-prevention program lasted three years, although further research was conducted over a period of several decades.
- The main measure is that a promotional activity consists of a planned series of coordinated actions. The design and delivery of messages makes this most evident. Messages arranged in a formal and important way are chosen, and responsibilities are assumed to choose efficient methods of communication and media.

1.2. Role of Mass Media in Creating Information Age:

From the creation of the Industrial Age, through to service-based production, the development of a knowledge economy was represented by the confluence of information technology with sophisticated communication networks. The term "media-saturation" refers to how information now permeates our lives and completely dominates our experiences. Media has entered our lives and today's media gear, such as wearable electronics with cell phones or television receivers integrating digital or surveillance cameras, is becoming smaller and more adapted [8]. The world has seen unsurpassed levels of power in the mass movement of investment and commerce, as well as the global reach of technology, knowledge and connections to the global reach of media businesses. A mass media was regarded by a mass-media-and-national-development as a bridge to a larger world that brought new concepts and paradigms within North to South and South from urban to rural areas [9]. The term

"broadcast" refers to a scenario where some broadcasters send content to large audiences of over 30 million individuals who are all simultaneously watching the same event or are participating in and engaging in the same activities. Broadcast media is seen as contemporary, modern or postmodern. Mass media is essential to modern civilization. Due to the increasing use of video communication devices by television news correspondents the reason being, viewers at home can get live, up-to-the-minute news from far flung areas of the world [10]. Another survey found that 40% of people claimed they get their local news from newspapers, while 35% said they get it from television, 70% said they get it from television get their knowledge about foreign news and about 20% get it from newspapers (Figure 1).

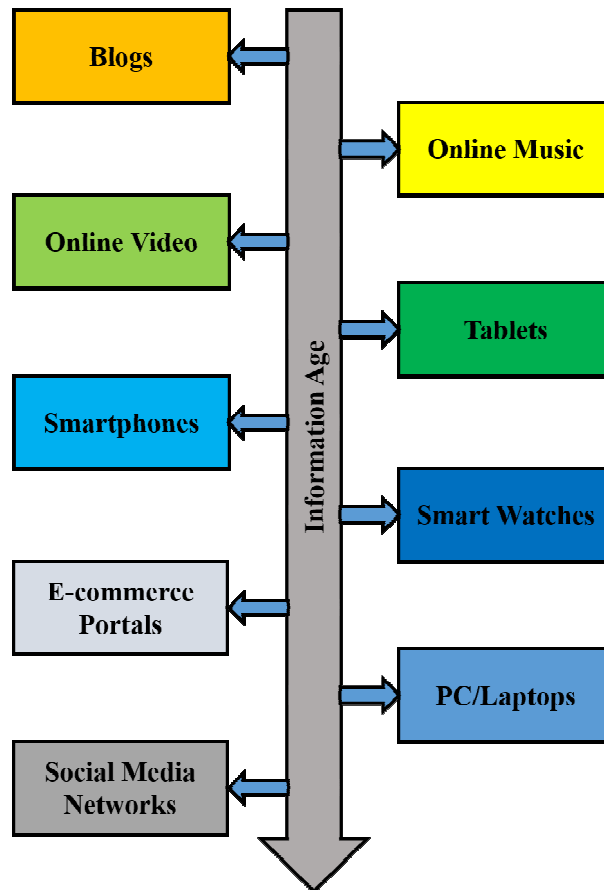


Figure 1: Illustrated that the All Information age of Mass Media.

The fusion of telecommunications, computing and telecommunication technologies demonstrates how the media is becoming increasingly contemporary. The simplest form of divergence is responding to a television-program (broadcast) via an international website (telecommunications) that counts votes and answers from the audience (computing) [11]. Communication is a meaningful communication between two systems or beings using mutually understood information. The most important technological advance in history is the creation of computers. Acting as the engine of the information age, computers have emerged as the primary driver of technological progress over the past 30 years. A computer is at the core of many electronic devices, including cash registers, digital computers, CD-players, video games, fax machines and mobile phones. Multimedia computers edit pictures and movies quickly as the information age transitions to a new phase. For example, the author fascinated by the liquid metal enemies of the Jurassic Park movies, real dinosaurs, and Terminator [12]. The ability to adapt digital information has given rise to a certain class of enterprises. The broadcast and telecommunications sectors have historically operated in

domestic markets, with a focus on providing mass audiences with appropriate scheduling. Concrete roadways are being replaced by electronic ones. Thanks to video and teleconference, we can bank, shop, work, receive news and receive mail from the comfort of our homes, instead of using cars.

1.3. Communication Diffusion and Impacts via Technology and Globalization:

New technologies have a significant impact on relationships. Over the years, the author has observed how cell phones, radio, cinema, television, accelerated processing xerography, presentation software and electronic mail have transformed communication. Communication has become increasingly ubiquitous and visible due to media technology. Technological advances in emerging media have brought individuals into potential exposure [13]. Modernization theory in this essay states that communication seems to be where technology has developed most dramatically. The media of the times influence the types, stages of social organization and the characteristics of society. In modern times, computers, the Internet, wireless telecommunications technologies, cable television, even satellite communications are changing how communities are shaped and the provision of intercultural and basic services connectivity is increasing [14]. Recent changes are not related to isolation, but the result of the advancement of communication technology in the late nineteenth and early nineteenth centuries, which was instrumental in the establishment of international communication networks. People are connected together through telecommunications in networks of ideas, information, e-commerce and communities. Since the advent of interactive media, the influence and authority of media has increased to an extent never seen before. Today everyone is a writer, designer, publisher, journalist and media producer.

To further integrate society and economics around the world, there is an expansion of global cross-border trade relations. According to Terry Flew its components are: the global expansion of trade, finance and production; development of multinational corporations; reducing cross-border duties on the flow of goods and services; the regulatory nature of financial markets and indeed the rise of Internet-based e-commerce, regional and global movement of people; the rise of immigrant communities; and the growing multiculturalism of different systems [14]. Broadband, cable, satellite and the Internet are examples of telecommunications, information and media technologies that enable international language fluency and the international transmission of cultural objects, textile images and antiques, concepts, belief systems, and terms such as exports. Widespread use. Public relations or spin campaigns with the objectives of influencing public opinion on a global, national, and local level by government and government corporations and humanitarian organizations, including Western values, democracy, the war on terrorism, fundamentalism, feminism, and environmentalism [15]. Level. Other definition of internationalization is Westernization which is the transmission of a Western perspective today into indigenous cultures in a cultural context. Examples of this include McDonald's culture, music, tourism and fast food chains in many countries. American media outlets such as Hollywood spread their influence beyond the borders of the country.

1.4. Characters of Mass Media:

Progress made over time, mass communication has a far greater impact now. Therefore, it is important to understand the distinctive features of mass media, which are as follows:

- Large target audiences may find it attractive;
- It gives a message to the public;

- There is a separation between the source of information and the people who receive it;
- It can be broadcast through various media including television, internet, radio and publications;
- Its audience is diverse;
- News or information broadcast by print, radio, or television may still receive feedback.

Let us move on to the next section as it is important to understand both these characteristics and the many types of mass media.

1.5. *Types of Mass Media:*

There are many various kinds of mass-media, comprising publishing and streaming services as well as books, newspapers, radio, and social-media platforms. There are four distinct types of mass media.

- *Print-Media:*

It is one of the quickest and most straightforward techniques for communicating with the normal community and may be done via loudspeakers or coupons. Print media is used to refer to newspaper articles, the primary producers of information. This genre of media included magazines, books, and magazines [16].

- *Outdoor-Media:*

Ambient marketing is a beautiful representation of sophisticated marketing communication. Companies utilize peculiar products and weird environments to market their products. Use Folgers as an explanation. This coffee shop came up with an innovative and striking method of utilising sewage covers to advertise coffee. Innovative firms may thus communicate in places like bus stops, trains and buses, and buildings [17].

- *Broadcasting-Media:*

An electronic distribution medium is used to communicate audio and multimedia material to a dispersed community. Media including broadcasting, radio, video, and gaming are accessible to a wide range of viewers, encompassing people of different ages, backgrounds, viewpoints, and interests [18].

- *Digital-Media:*

4.66 billion People will be proactively using the Internet in 2021, reflecting the global reach of digital-media. Today, products are marketed their goods and services through webpages, YouTube, and podcasts. Likewise, business often promote their services on Facebook and Instagram [19].

1.6. *Advantage of Mass media:*

- *Keep Us Connected:*

You can keep going as long as you are able to remember to know anything about the environment outside your city until the rise of mass media. The author is now completely confused. Secondly, it can be good enough. For example, when someone is bitterly hit,

people around the world are immediately aware of it and may be ready to help. Without mass-media, there is no doubt that writers would be less able to see how we are all interconnected and dependent on each other [20].

- *Prompt Business:*

What should a company look like without advertising and spotlighting? Due to the business engagement that mass media has made practical, businesses can now reach customers and prospects more quickly and easily than ever before. For our economy, it helps to make a significant difference [21].

- *Promotes Art and Culture:*

You can look at creative achievements from all over the world available on the Internet or learn about the nuances of a civilization that is quite different from your own. Additionally, a variety of TV and radio programming devotes themselves to examining the world, giving us the opportunity to learn new information and form new ideas while supporting and believing our own knowledge.

- *Becomes Voice of Voiceless:*

Mass media can create a prominent figure that might have gone unnoticed, from newspapers to us reporting people's difficult situations. Online media allows a person's values to become a web celebrity and spread around the world.

1.7. *Disadvantage of Mass-Media:*

- *Empower the Already Powerful:*

Although everyone can share their experience through the mass media, the vast majority of contemporary mass media are bought. Furthermore, since it was paid for, money individuals have a big hand in what we experience and hear. Because of this, the voices of the rich and those associated with the wealthy are far louder than most of us. It is not suitable in its full form. It is a means for a small minority to retain power over the vast majority.

- *Used for Disinformation and Hate:*

How will people know that the information you read, see or hear in the media is accurate? While it is entirely the case that some sources of information are more reliable than others, the mass media in general lack protection against deliberate propaganda and falsehood. Since a few centuries ago, the extremist regime has used the media to determine what its kin accepts. As the Internet has grown in popularity, even those who live in systems where the majority dominate can easily be exposed to content that aims to make us hate or believe lies.

- *Homogenize Culture:*

Before the advent of the mass media, handicrafts and culture were heavily restricted, and as a result, they represented variations in the way people interacted, communicated, and dressed. Currently, comparable social effects are often seen and heard around the world. Diversity certainly still exists, but there is a chance that mass-media could reduce social diversity, depriving us of artistry and purpose.

- *Overtake Personal Connections:*

The author's all been part of it or seen it: a cocktail party when everyone spends most of the afternoon looking at their phones or TVs. The media may connect us with people around the world, but it can also isolate us from the people standing in front of us.

2. LITERATURE REVIEW

M. Klepek and H. Starzyczna illustrated that the emergence of social media gives marketers an additional set of channels for communication that can strengthen integrated communication into marketing strategies. Content creation and debate on social media platforms still lack proper understanding, in contrast to online advertising offered on social media, where the traditional advertising logic gives an acceptable explanation. As a result, many organizations often misunderstand the communication needs of their customers in the world of social media. A lack of understanding coupled with a reluctance to change is the obvious reason. Bridging this gap requires empirical research to shed light on the current communication expectations of consumers. Facebook was chosen as the social network with the most global and local reach. A different communication model has been suggested that emphasizes connectivity as the most important component, based on the findings of this study and other communication research investigations. The suggested plan includes some basic elements. Firstly, unlike older designs, in our approach the material is not produced outside. Finally, data is important because it is a useful tool for obtaining feedback and conducting further research. Managers can apply true mass method individualism to the flow of data from individuals to businesses [22].

M. Kiani et al. illustrated that the goal of this study was to look at how social media and general media influenced how fans and sports booksellers interact globally. This study examines how social networks and new media affect the relationship between sports fans and librarians, as well as how fans engage with sports libraries. Given that the perception of contemporary media as a whole is new, quantitative studies have been conducted on the deployment of sports media on its impact on sport, on job creation, fostering dialogue and research on negative consequences. of these media. A manual evaluation of research conducted within the time period without such results was followed by study. Not all contact between athletes' fans and coaches through new media is favorable. The growing engagement between some of these groups today may have drawbacks. The findings demonstrated how the harmful effects of new media affected every element of the lives of players and coaches. Negative tweets result in most players and coaches being forced to turn off their communication tools, which can be so terrifying at times. The wall between athletes, coaches, and fans seems to be breaking down with the development of new media and social networks, making it possible to have correspondence between these two groups. There are a lot of advantages and disadvantages to this futuristic relationship, although organizing sports matches allows for a better experience for fans [23].

A. Demutska illustrated that despite the implicit existence of this behavior in social communication, current research on social communication challenges receives little attention on the topic of collective emotional responses. The author's prior study demonstrates the importance of the mass hormone as a tool to bring people together during social communication. These feelings cause an angular momentum that improves the state of public opinion through communication perception to the collective spirit of the audience. The goal of the research is to identify the processes of explicit or implied arousal of widespread emotional outbursts through the influence of mass media as well as the tools of the emotional and affective basing process. To accomplish the objective, approaches of observation, description, comparison and extrapolation were applied. The observation approach was used to select examples of social events for examination where it may be possible to determine how the media affects the audience. At the height of political discourse, the method of description was applied to characterize patterns and characteristics of increasing influences on audiences [24].

3. DISCUSSION

Communication and media are vital to how we live our daily lives. The conclusion is that the twenty-first century can be considered as a network century because we are connected to the media like a growth because the author want to remain well informed to improve our economies both domestically and abroad, which is example of this idea in globalized world. As media acts as a change agent in the process of development and assimilation and brings the world closer, mass media contributes to change in the cultural and social value of people. The economy of the future is predicted to be driven by communication, where time, place and region are no longer restrictions on employment options. The author live in a world that is rich in media, where practically everyone has virtual access to media and a wide variety of content options. The associated diversification of the television industry and the convergence of media and technology has led to a concentration of media power in the hands of a few powerful multinational corporations with signs of a universal democratic system. International television programming, mobile phone technology and widespread Internet access have connected the world in unprecedented ways that are characterized by the globalization of media. The media has recognized this super peer as a replacement for traditional social agents. The development of infrastructure and networking of links in societies around the world is driven by technology-oriented projects. Through media content that has influenced global realities, the world is becoming more homogeneous, combining the diversity of many countries. This was made possible by the fusion of media and communication technologies, which changed the way people viewed the environment by making electrical signals easily accessible and allowing anyone to influence objects and spread information to others.

4. CONCLUSION

Prevailing beliefs in the enormous power of mass communications appear to stem from successful cases of monopolistic propaganda or from advertising. But the leap from the efficacy of advertising to the assumed efficacy of propaganda aimed at deep-rooted attitudes and ego-involved behavior is as unwarranted as it is dangerous. Advertising is typically directed toward the canalizing of preexisting behavior patterns or attitudes. It seldom seeks to instill new attitudes or to create significantly new behavior patterns. «Advertising pays» because it generally deals with a simple psychological situation. For Americans who have been socialized in the use of a toothbrush, it makes relatively little difference which brand of toothbrush they use. Once the gross pattern of behavior or the generic attitude has been established, it can be canalized in one direction or another. Resistance is slight but mass propaganda typically meets a more complex situation. It may seek objectives which are at odds with deep-lying attitudes. It may seek to reshape rather than to canalize current systems of values and the successes of advertising may only highlight the failures of propaganda. Much of the current propaganda which is aimed at abolishing deep-seated ethnic and racial prejudices, for example, seems to have had little effectiveness. Media of mass communication, then, have been effectively used to canalize basic attitudes, but there is little evidence of their having served to change these attitudes.

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CHAPTER 23

AN ANALYSIS OF INFORMATION SYSTEM RISKS AND RISK FACTORS AND USER PARTICIPATION IN RISK MANAGEMENT

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ABSTRACT: *Risk that arises through the loss of confidentiality, integrity, or availability of information or information systems considering impacts to organizational operations and assets, individuals, other organizations, and the Nation. This paper describes the information system risk and provides guidelines for applying the RMF to information systems and organizations. The information system risk provides a disciplined, structured, and flexible process for managing security and privacy risk that includes information security categorization; control selection, implementation, and assessment; system and common control authorizations; and continuous monitoring. The information system risk includes activities to prepare organizations to execute the framework at appropriate risk management levels. The information system risk also promotes near real-time risk management and ongoing information system and common control authorization through the implementation of continuous monitoring processes; provides senior leaders and executives with the necessary information to make efficient, cost-effective, risk management decisions about the systems supporting their missions and business functions; and incorporates security and privacy into the system development life cycle. In the future this paper will provide more information on this topic for other students and researchers, that's why they can understand it.*

KEYWORDS: *Business Risk, Confidentiality Information Systems, Risk Management, Security Management.*

1. INTRODUCTION

According to estimates, internal team members are responsible for at least half of security breaches in information management, largely the result of illegal system access. If more attention is paid to factors specific to information systems security, which may arise when workers handle information in the course of their daily employment, the incidence of information technology security breaches by internal people can be reduced [1]. It is generally accepted that organizational efforts to manage security in information systems are often focused on vulnerabilities in computers and other technologies such as hardware, software, and communications, to manage other sources of vulnerabilities such as people, policies, and mechanisms [2]. At the expense of, , and culture. Additionally, technology-focused information systems security is often preoccupied with protecting against external threats such as viruses and hackers, leaving businesses under intrusion from within. Users are often portrayed in the literature on information systems security as the weak link in security, either due to operator error or computer criminality [3]. There have been few empirical studies that focus more on how users can improve the security of information systems, even though many authors have emphasized that users can be both the problem and the solution and They can play an important role in security design.

The research question of the current paper examines how users engage in information systems security financial planning within business processes and how their participation is perceived to affect information systems security [4]. It is based on the concept that, rather than being a weak link, users can be a valuable resource in maintaining information system security risks. User participation in the security of information systems risk management can be beneficial for at least two reasons. First, it is generally agreed that user knowledge about

information systems security threats is essential to efficient information systems security [5]. To put it another way, the organization's security measures (i.e., policies, procedures, safeguards, and countermeasures that prevent, detect, or mitigate information systems security breaches) can be successful only to the extent that, Individuals who are handling information in their day-to-day jobs (for example, functional occupational use are aware of those measures but follow them [6]. The authors argued that since prevention methods are often deeply Management attention is required, and there may be an appropriate degree of awareness and concern about the need for good security protections.

User participation is probably helpful in spreading this consciousness. For security protocols to be successful, they have to be in line with corporate goals Understanding the relative importance of information, how information can be useful inside and outside business processes, and where sensitive information is most sensitive within a process, are all essential to such alignment using user risk analysis and control design [7]. These can provide the necessary company information, which can result in more effective security measures. Since at least the 1970s, user participation in systems development (ISD) and its impact on the eventual success of deployed systems has been a major study topic. Most of the results of high engagement are associated with positive outcomes such as pleasure and emotional connection [8]. According to some experts in group dynamics, the greatest effects of participation may instead be cognitive, such as knowledge transfer and information sharing. Although the cognitive effects of user interaction have been highlighted by experts, there are no empirical studies in the literature that looks at these effects. Thus, in the setting of information systems security, the present article examines the cognitive effects of user interactions.

The present article aims to examine user engagement in security settings and how this affects the efficiency of information systems security measures in companies. In doing so, the study addresses the demands of research on social media engagement in contemporary settings, as well as calls for information technology security research that uses theory from the computer network literature [9]. Existing ideas in ISD that describe user participation are followed by concepts of that notion in IS security situations. After describing the project's multi-method research design, follows a phenomenological qualitative study looking at user participation in IS security risk management for compliance with regulations. Confirmatory quantitative research is used to evaluate a theoretical model that is based on existing user participation principles and qualitative investigation [10]. The report concludes with some discussion such as the implications, constraints of the study, and recommendations for further research.

1.1.Process of Risk Management:

The steps that should be taken are outlined in the risk management process. The risk management process consists of five basic processes to be implemented for risk management, which are shown in Figure 1. Starting with risk identification, it proceeds to risk analysis, risk prioritization, solution implementation, and contingency planning [11]. Each step in a manual system requires a large amount of administrative and paperwork.

i. Risk Identification:

The detection of risks in the company's area of operations is the first step in the process of risk assessment.

There are many different types of risks:

- Legal risks

- Environmental risks
- Market risks
- Regulatory risks etc.

Most of these potential confounders should be found, if possible. In a manual arrangement, these risks are monitored manually. If the firm is using a risk management solution, all this information gets automatically entered into the system [12]. The advantage of this approach is that any organization's stakeholders who have access to the system can now see these risks. Anyone who wants to know which risks have been detected can view the data in the risk management system instead of requesting a statement with this important information.

ii. Risk Analysis:

Once a hazard is detected, it should also be investigated and the extent of the risk determined first. It is also important to understand the relationship between risk and other organizational characteristics. To measure the degree and severity of risk it is really important to look at how many business operations the risk carries (Figure 1). There are concerns that, if they appear, could put the entire firm at risk, while other threats, according to research, will only cause minor annoyances. This analysis must be conducted manually in a physical risk management system. One of the most important first steps in the implementation of a risk management system is mapping risks to various documents, rules, procedures, and operating procedures. This indicates that the technology will already be equipped with a structured methodology for risk management that will evaluate threats and inform you about the long-term effects of each risk [13].

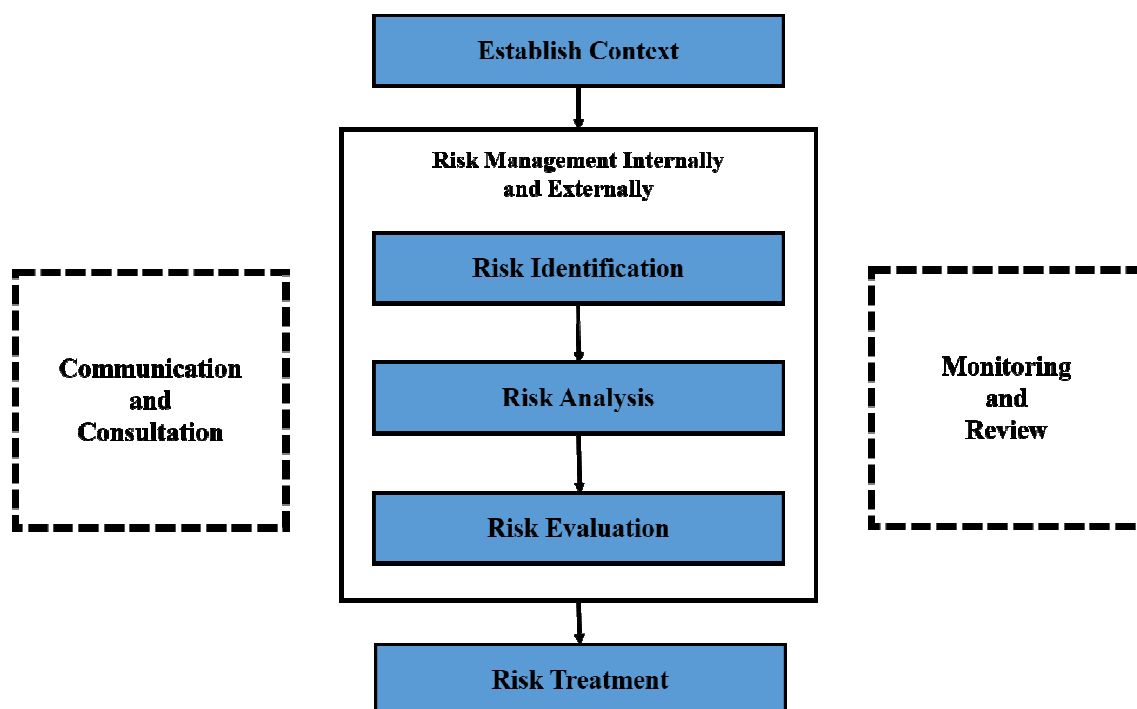


Figure 1: Illustrated the Five Major Processes of Risk Management.

iii. Risk Evaluation:

It is necessary to rank and prioritize risks and, depending on the intensity of the risk, most risk management processes involve several types of hazards. Risks that may result in slight discomfort are considered better than those that can cause catastrophic loss, which is valued

the most. Ranking hazards is important because it gives the business a complete understanding of the overall risk of exposure. The company may be subject to a variety of low-level threats, but senior management may not need to be involved. But on the other hand, even one of the worst threats is important to call for quick action. You can then make investment arrangements based on the requirements and make currency-based predictions after calculating the risk. To make sure everyone who uses the technology can use it, you need to specify what each situation represents. Probability requirements cover a spectrum from very low to very high. This has been explained to mean, for example, that being extremely low means that there is no history of this happening and would require specialist knowledge and incur significant expense. Impact requirements vary from exceptionally low, with negligible costs and repercussions, to very high, which practically always results in the demise of the business [14].

iv. *Risk Treatment:*

Research supporting risk treatment often referred to as "risk response planning", needs to be included. Simply put, "risk treatment" refers to measures you take to manage and acknowledge risk internally, for example, to reduce risk to a contractor, or to reduce risk. To end completely. This procedure is appropriate because the standard includes an annex. a set of control goals to be taken into account during action; These goals will serve as the framework for your claim to be implemented. The author can also use regulations to do a "bottom-up" check to see if there are any hazards you may not have initially considered [15].

v. *Monitor and Review the Risk:*

The first step in the monitoring and review phase of the risk management process is to describe your monitoring and review procedures. These categories can be used to classify it:

- *Staff Engagement and Awareness:*
 - Create a space to give and receive feedback, and regularly involve the right people in the process.
 - You must assign a boss to each risk, so you might consider passing that responsibility to the front line, according to the widely accepted "lines of defense" approach.
- *Management Reviews:*
 - The agenda often includes a risk review, but you can choose to have a full financial category at this stage, outsourcing the operational functions but keeping ownership.
 - Your management reviews should still be conducted at least once every year, but they may not last long enough to thoroughly examine each concern and address all other items on the agenda. Consequently, we also suggest a process where the risk operator is given the responsibility to reconsider the review based on its final status, for example, a monthly assessment for very high probability and significantly high impact risk, while an Annual review is acceptable for very low probability but very low impact risk. You then demonstrate to your auditor that although these risk analyzes are practical and based on likelihood and impact, do whatever they find attractive [16].
- *Improvement*
 - The various methods of internal audit and growth listed in Section 10 can be usefully incorporated with the strategic planning risk assessment process.

1.2. Major Characteristics of Information System Risk:

i. Situational:

Circumstantial changes may result in new threats. These adjustments may include kicking out a team member, undergoing some sort of restructuring, or changing the scope of their project [17].

ii. Time-Based:

Due to the unpredictable aspect, there is a very strong possibility that the risk will be reflected in the start and fall of the developer over time. Conversely, when there is a risk, the impact (cost) is low at the beginning and increases at the end [18].

iii. Interdependence:

Many responsibilities and deliveries are interdependent within a project. Delays in these jobs could result in a global economic collapse, which would affect its other functions that are intertwined.

iv. Magnitude Dependent:

In this situation, the relationship between the probability and the effect is not linear, and the size of the risk has a considerable effect. For example, compare the risk of buying \$1 for a 50/50 chance of winning \$5 to the risk of spending \$1,000 for a 50/50 chance of winning \$5,000. The actual cost of losing is much higher in the latter position as the probability of losing is the same in both situations [19].

v. Value-Based:

Personal, business, or traditional influences may have an impact on the threat. For example, the time of year, the languages of the work team, or religious affiliations can all affect whether a project is finished on time. Operations conducted in foreign countries with different cultures may be more harmful than those conducted with nationally matched employees.

1.3. Challenges of Information System Risk:

i. Cost Reduction:

Cost is one of the criteria used when selecting risk assessment techniques. Choosing a better approach to the organization can be problematic, as it takes more time and resources than the mediocre method due to severe fixed budgeting. Additionally, since the function is cyclical (annual or semi-annual), additional weighting is being given to cost concerns [20].

ii. Non-formal and Unstructured Approach:

Most businesses lack a logical approach and organized approach to dealing with concerns typically related to technology or the environment, which can lead to a threat assessment that is inadequate to protect assets.

iii. Improve Risk Assessment and Modeling:

For the tasks to be fully carried out, the risk assessment methodology has to be established in a manner appropriate to the company. The processes associated with risk assessment should be carefully modified for their feasibility, and importance should be

paid to ensuring that the final actions selected are critical elements, critical steps are not overlooked, and steps are structured in the proper sequence [21].

iv. *Data Management:*

The ability to understand the data is affected by the agreement and consistency of the data collected during the inspection. Therefore, it is important to employ resources and templates to manage the quantity and quality of exam data [22].

v. *Developing Risk Metrics:*

Risk metrics provide a methodology to calculate services based on previously determined threats or vulnerabilities. It is important to emphasize a threat or vulnerability based on its severity. If a vulnerability or vulnerability is addressed inappropriately, it will either be mitigated or controlled. Over control would drive up costs and make the system it is attempting to keep more vulnerable to the threat under regulation [23].

vi. *Improving Reporting:*

The final report should clarify the comments and next steps. This ambiguity often prevents people from adequately following through on statements and actions.

vii. *Complicated:*

Some businesses use costly and complex methodologies for risk assessment, leading to delays in identifying risks when they are not relevant or necessary and delays in dealing with them when they do occur.

viii. *One-time Activity:*

While there are advances in technology or processes designed to perform a risk assessment on an ongoing basis to handle dynamic risk forecasts and created risk, a company may view hazard identification as a one-time task or undertaking that requires specific compliance. Necessary.

1.4.Opportunities of Information System Risk:

i. *Consistency in Approach to Risk Assessment:*

When identifying a threat, consistency must be established, especially when assessment methods are distributed across multiple domains. Any disparity would make it impossible to understand the data collected and, consequently, the reported findings.

ii. *Collaboration on Key Risk Discussions:*

To ensure that the risk management business is running well, representatives from several verticals must gather to discuss tough decisions.

iii. *Minimize the Incidence of Negative Surprises:*

To reduce the likelihood of unpleasant aftershocks, the risk management process should be mature enough to allow for the early detection of risks. It is best to do predictive analysis to identify the threat as early as possible.

iv. *Integrated Responses to Multiple Risks:*

In situations when hazard assessment spans multiple domains, requiring scope for coordination on mitigation efforts, it is essential to develop an interoperable approach to risks.

v. *Get Security Beyond Compliance:*

Risk assessment can help bridge the gap between compliance and security in many cases when compliance alone cannot shield an organization from threats. Baseline controls are maintained by compliance standards, and therefore any additional or unique risks must be thoroughly analyzed.

vi. *Align Investment with Business Objective:*

By making risk assessment maintenance a top priority for the timely selection of appropriate resources, risk assessment can help companies protect assets that become important to the company.

In this paper, the author has discussed Information System Risk. A risk information management system, then, is a system that helps to combine asset valuation, claims, policy, and risk information, as well as tracking and monitoring, so that the user can monitor and manage the overall cost of risk management. Can you provide access to management reporting features? The author first discussed the method of assessing information networks and information systems and then broke it down into five main sections. Then several aspects of management software risk are described. The author then discussed the difficulties faced, and in closing, he also highlighted the many more possibilities the subject presented.

2. LITERATURE REVIEW

S. Amraoui et al. illustrated that for an information system (IS) to do business, security is a critical requirement. The security of IS assets is enhanced by risk management. It protects the organism against damage caused by the occurrence of unwanted events that have an impact on the goals of the knowledge system and, as a byproduct, its strategy. This is important when deciding whether to pursue new opportunities. Additionally, it guarantees the best possible delivery of information and information systems. Before choosing what is to be done and reducing the risks to acceptable levels, the risk management methodology seeks to examine what could happen and determine the likely consequences for the firm. The above essay provides an overview of the literature on IS portfolio management and compares its processes, techniques, and standards [24].

J. Suroso et al. stated that Prospect management can reduce the risk of such things as inefficient business operations, monetary loss, and deterioration in the reputation of the company, or the destruction of the company's business. The company should conduct a risk management assessment to minimize damage to the company's core process information system. Information systems should be used especially in educational institutions to assist in business activities. Some risks are associated with the use of information technology that can harm the organization. A risk assessment should be performed to minimize adverse effects. As a result, points of contention are addressed, and aggregate user input identifies agreed-upon mitigation measures. A risk identification information system proved helpful in mitigating the threats posed by it [25].

H. Taherdoost embellishes that during their existence, companies are subjected to enormous amounts of risks, vulnerabilities, and unforeseen business disruptions, which have a

detrimental effect on their productivity and market viability. A risk management program is needed to indicate these hazards, risk factors, and ways to reduce or eliminate them. A company must incorporate highly organized risk management processes, including organizational planning papers. Several critical processes used in the formulation of financial planning, continuity planning, and fraud detection policies attempt to reduce risk factors, their susceptibility, and their impact. Unforeseen risks to come within months or years must be anticipated and businesses must be prepared to respond and recover from them. This article provides a thorough narrative examination of financial planning in computer systems, along with examples of how it is used in fraud prevention and detection and business continuity planning [26].

3. DISCUSSION

Unsurprisingly, the contribution of this paper is the persuasive argument for the use of a risk analytical framework. It doesn't have the qualities to support its obvious role as a management selection tool, but it does provide a great communication channel and is undeniably better than the alternatives. Risk analysis options do not provide much improvement. The demands of systems designers are not addressed by existing control models created by other businesses. Similar to the medical community, computer networks do not have a specific body of knowledge based on which certification is made. Like the accounting community, the information technology of the future is not yet predictable enough to enable the development of design standards. Last but not least, the emerging character of information systems negates established norms, such as those that underpin the legal community. Consequently, risk analysis remains our most effective meta-control method. Its main advantage lies not in the ability of predictive modeling, but in the excellent tools for conveying the explanatory expertise of the assurance designer to management's stock investments. In terms of capital expenditure, it excellently conveys the expert approach of the designer to management. Because it has the potential to be both arbitrary and less rigorous, exactly two characteristics that are most criticized, risk analysis stands out.

4. CONCLUSION

Although users' mistakes and irresponsibility are often identified as critical points in IS security, current research provides data that supports another position. In other words, it was found that business users participating in the prioritization, analysis, design, development, testing, and management of user-related security processes within business processes added value to information security and security risk management. User participation increases corporate awareness of security threats and controls inside enterprise applications, which in turn promotes the creation and execution of security controls more effectively. The requirement to comply with regulations may promote user participation in certain corporate functions. Security managers can take advantage of compliance with regulatory requirements as a way to engage users, increase organizational security knowledge, and more effectively match screening processes with business goals. The findings of this publication will be useful for future research in two areas. Our understanding of what is involved in SRM situations will be improved by first testing an individual level of user engagement and analytics.

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