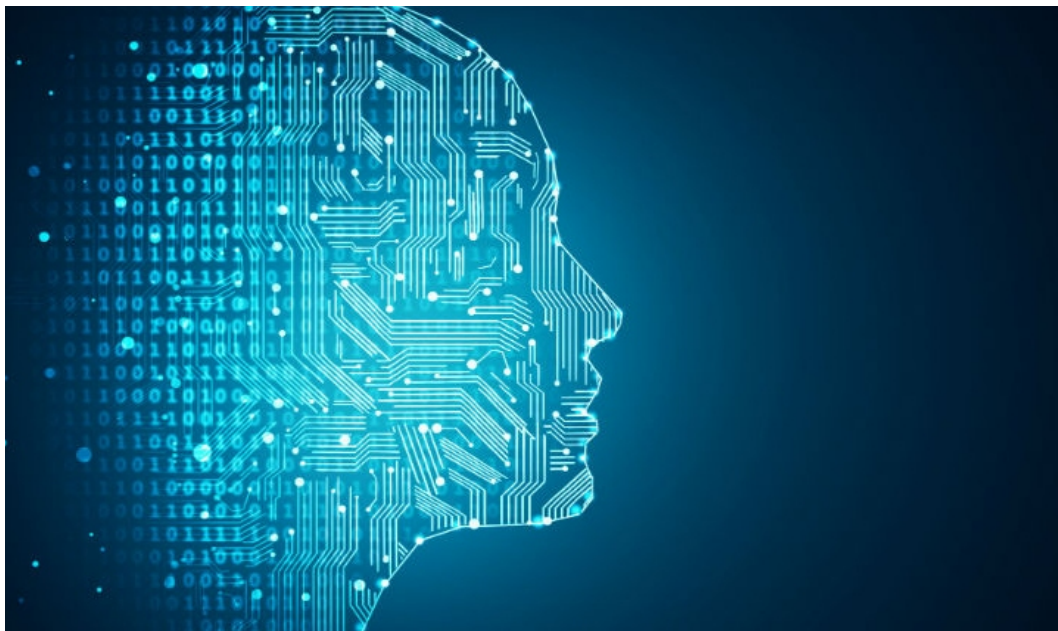


SERVICE MANAGEMENT OPERATIONS AND INFORMATION TECHNOLOGY



Dr. Nalin Chirakkara
Dr. Akhila Udupa



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CHAPTER 1

BANK RISK MANAGEMENT SYSTEM

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ABSTRACT:

For banks to properly identify, analyze, control, and reduce the different risks they encounter throughout business operations. In order to ensure the stability and sustainability of banks, this research gives an overview of the bank risk management system, emphasizing its major components and the significance of its execution. The risk management system in banks consists of a thorough structure and procedures intended to handle risks proactively. It entails recognizing and classifying risks, evaluating their possible effect, putting controls and mitigation measures in place, and continuously monitoring risks. Credit risk, market risk, liquidity risk, operational risk, and compliance risk are the main issues that a bank risk management system addresses. Market risk includes possible losses as a result of unfavorable changes in market circumstances, while credit risk refers to the likelihood of borrowers failing to fulfill their commitments. Inability to pay debts is referred to as liquidity risk, internal errors are operational risk, and failure to comply with regulations is compliance risk. The roles, duties, and powers of different stakeholders within the business are outlined in risk management policies and procedures that banks adopt in order to manage these risks efficiently. To gauge the possible effect of hazards, they design risk assessment approaches, such as quantitative models, stress testing, scenario analysis, and risk rating systems.

KEYWORDS:

Business Operations, Credit Risk, Market Circumstances, Risk Management.

INTRODUCTION

The banking sector has suffered severe losses during the last ten years. Due to credit exposures that went bad, interest rate positions made, or derivative exposures that may or may not have been adopted to hedge balance sheet risk, companies that had been operating well abruptly declared significant losses. Commercial banks have virtually uniformly started to upgrade their risk management and control systems in reaction to this. The Wharton Financial Institutions Center has been involved in an analysis of financial risk management procedures in the financial sector, with funding from the Sloan Foundation, coincidentally with this activity and in part as a result of our recognition of the industry's vulnerability to financial risk. On-site inspections were carried out over the previous academic year to examine and assess the risk management systems and the process of risk appraisal that is in place. Many of North America's super-regional and quasi-money center commercial banks, as well as a number of significant investment banking companies, were the subject of a system assessment in the banking industry. Then, for feedback and confirmation, these data were provided to a much larger range of financial businesses.

Outlining the research's conclusions is the goal of the current study. It provides information on the condition of risk management practices in the sector, including questions that respondents asked, their answers to, and any issues they omitted to address. This research is unable to include all of the strategies used in the sector or to evaluate each and every one of them. Instead, it summarizes the accepted standards of practice and assesses how and why they are used. Even the finest practices used in the sector, however, fall short in certain instances. So, when appropriate, criticisms will also be provided. The study ends with a list of unsolved or vaguely addressed issues about the existing methods used by this group of rather sophisticated institutions. Here, we go through the issues that the industry has the greatest trouble solving, the flaws in the approach currently being used to evaluate risk, and the components that are currently lacking from risk management and risk control processes[1]–[3].

The Franchise of the Industry Is Based on Risk

Risk management is a business for commercial banks. They take on a variety of financial risks while offering financial services. Our knowledge of the position of commercial banks within the financial industry has significantly increased during the last ten years. In the scholarly literature and the financial press, there has been a lot written on the function of commercial banks in the financial industry during this period. We won't discuss or list these two or three reasons here. It is sufficient to claim that market players employ these financial institutions' services because of their capacity to supply money, transaction efficiency, and market expertise. They often act as a principal in the transaction while playing these roles. As a result, they facilitate the transaction and take on the related risks using their own financial sheet. Certain tasks carried out by financial institutions do not directly affect the balance sheet, to be sure. These services include government and advisory functions such

- (i) Management of trust and investments,
- (ii) "Best efforts" private and governmental placements or facilitation agreements,
- (iii) Conventional underwriting through Section 20 Holding Company Subsidiaries, or
- (iv) The packaging, securitization, distribution, and servicing of loans, mainly in the fields of consumer debt and real estate debt.

The conventional financial statement does not include these elements since it relies on widely recognized accounting principles rather than an accurate economic balance sheet. However, on-balance-sheet operations provide the vast majority of risks to the financial institution. The subject of risk management and the steps required for risk management and control has focused on this issue. Therefore, this is where we will focus in our examination of risk management practices.

DISCUSSION

Some dangers may also be removed or at the very least significantly decreased using the risk transfer approach. Many of the risks taken by the financial company have markets. Interest rate instruments, such as swaps or other derivatives, may transfer interest rate risk. You may amend the conditions of a loan to affect how long it will last. The bank might also purchase or sell financial claims to concentrate or spread the risks associated with serving its clientele. These assets may be sold at their fair value to the degree that the market is aware of the financial risks associated with the firm's assets. There is no rationale for the bank to absorb such risks rather than transfer them unless the institution has a competitive advantage in managing the associated

risk and/or a desire for the inherent risk they entail. There are, however, two categories of assets or activities in which the risk associated with the activity must and should be taken on by the bank. In these circumstances, there are valid justifications for managing bank level risk using company resources. Financial assets or operations where the nature of the inherent risk may be complicated and difficult to disclose to other parties are included in the first category. This is the situation where a bank has complicated and proprietary assets with limited, if any, secondary markets. In some situations, communication could be more difficult or costly than offsetting the underlying risk. Furthermore, disclosing details about the client might provide rivals an unfair edge. In the second instance, there were proprietary holdings, which are tolerated due to their risks and predicted returns. Here, risk positions that are essential to the bank's mission are taken on since they represent the basis for the company's existence. A prominent example of this is the credit risk that comes with lending, as well as the market risk that faces banks with trading desks in certain markets. In all of these situations, risk is absorbed and must be properly monitored and managed by the institution. Only then can the company successfully reach its objective for financial performance[4]–[6].

What steps must be taken in light of the above in order to implement effective risk management? What methods are used to both manage and restrict the many categories of risk, and how are they put into practice in each risk management area? We will now attend to these queries. A method is revealed after examining the practices used by top businesses and after looking at extensive risk management systems. A series of actions is used by the banking company's management to develop a risk management system. You may think of them as having the following four components:

- (i) Reports and standards,
- (ii) Position restrictions or guidelines,
- (iii) Investment policies or methods,
- (iv) Contracts and remuneration for incentives.

These instruments are often designed to quantify exposure, provide management processes for these exposures, set acceptable levels for specific positions, and encourage decision-makers to manage risk in a way that is compatible with the firm's goals and objectives. We go into further detail on each step of the process below so you can understand how each of these four fundamental risk management strategies achieves these goals. We provide examples of how these methods are used to control each of the unique hazards that the banking industry faces.

Reports and Standards

Two distinct conceptual tasks, namely standard setting and financial reporting, are involved in the first of these risk management strategies. They are included together because they are a need for every risk management system. Traditional methods of risk management and control include underwriting criteria, risk categorizations, and standards of evaluation. To understand the risks in the portfolio and the amount to which these risks must be managed or absorbed, exposures of different sorts must be consistently evaluated and rated. The next component is the standardization of financial reporting. For investors to assess asset quality and business level risk, external audits, regulatory reports, and rating agency assessments are unquestionably necessary. For better or worse, these reports have long been standardized. However, there is a requirement for management information on asset quality and risk posture in addition to the public reports and audited accounts. Similar standardization and significantly more frequent

reporting periods are required for these internal reports, with daily or weekly reports replacing the quarterly GAAP cycle.

Rules and Position Limitations

Position restrictions and/or minimum involvement requirements are a second method for internal management of active management. Regarding the latter, only assets or counterparties that meet a certain quality level are allowed to engage in risk-taking. Then, for those assets that do qualify, restrictions are put in place to protect counterparty and credit exposures as well as general position concentrations in relation to other kinds of risk. The risk that may be taken on by any one person, and therefore by the organization as a whole, is limited by the installation of such limitations, despite the fact that they are expensive to create and maintain. Each person's capacity to contribute capital will often have a clearly defined upper limit. Traders, lenders, and portfolio managers are all affected by this. Periodically, summary reports display the limitations and current exposure for each business unit. Accurate and timely reporting is challenging but much more important in huge businesses that retain thousands of roles.

Investment Policies and Techniques

The third method, which is often used, involves providing investment recommendations and suggested positions for the near future. In this section, strategies are described in terms of concentrations and commitments to certain market segments, the degree of targeted asset-liability mismatching or exposure, and the need to hedge against systematic risk of a specific sort. Because managers often adhere to positional restrictions and established guidelines, the constraints mentioned above result in passive risk avoidance and/or diversification. Beyond this, guidelines provide firm-level guidance on the proper amount of active management, taking into account the market's condition and senior management's readiness to assume the risks suggested by the portfolio as a whole. Such parameters result in asset-liability matching and business level hedging. Securitization and even derivative activity are two further fast expanding position management strategies available to participants seeking to limit their risk and comply with management directives.

Incentive Programs

The need for complex and expensive controls is reduced to the degree that management may engage into incentive-compatible contracts with line managers and make remuneration commensurate to the risks assumed by these people. However, these incentive contracts need appropriate internal control mechanisms and an accurate position valuation. These tools, which include job postings, risk analysis, cost distribution, and the establishment of necessary returns for different portions of the company, are not simple. Despite the challenge, well-designed systems integrate the objectives of managers with those of other stakeholders in a very desired manner. In reality, as the instances of the deposit insurance and maverick traders so amply demonstrate, the most of six financial disasters may be linked to the lack of incentive compatibility.

Providing Banking Services Comes with Risks

To do this, one must first list the risks that the banking sector has decided to manage and then show how the four-step process is used in each case. The hazards connected with offering financial services vary depending on the kind of service. The risks, however, may be classified

into six general categories for the industry as a whole: systematic or market risk, credit risk, counterparty risk, liquidity risk, operational risk, and legal risks. Here, we will go through each risk that the financial organization faces and explain how it is handled. The danger of an asset's value changing due to systematic variables is known as systemic risk. Market risk is another name for it, albeit that one is a little less specific. through its very nature, this risk cannot be totally eliminated through diversification but may be hedged. In actuality, systemic risk might be conceptualized as undecidable risk. Every investor takes on this kind of risk anytime the value of assets they own or claims they have issued might fluctuate as a consequence of general economic conditions. As a result, there are several ways that systemic risk manifests. However, for the banking industry, two factors variations in the overall level of interest rates and the relative value of currencies are of most significance. The majority of banks strive to evaluate the effect of these specific systematic risks on performance, attempt to hedge against them, and thereby reduce the sensitivity to changes in undiversifiable components because of the bank's reliance on these systematic elements.

Therefore, the majority will constantly monitor interest rate risk. Even if they can't do it precisely, they assess and control the firm's susceptibility to interest rate volatility. International banks that hold significant amounts of several currencies simultaneously keep a tight eye on their foreign exchange risk and work to manage and reduce it. Similar to this, certain institutions who have substantial stakes in a single commodity, like as oil, worry about the risk associated with the price of that commodity due to their lending activities or regional dominance. Others with high levels of single-industry concentration may keep an eye on the danger of particular industry concentration as well as the factors influencing the performance of the sector in question. Credit risk results from a borrower's failure to perform. It could result from a failure or reluctance to carry out a contract's predetermined obligations. Both the lender that holds the loan contract and other lenders to the creditor may be impacted by this. As a result, the borrower's bank is very interested in both the borrower's financial situation and the current value of any underlying collateral.

The divergence in portfolio performance from anticipated value represents the true credit risk. Credit risk may thus be diversified, although it is difficult to totally eradicate it. This is due to the possibility that the systematic risk mentioned above might really contribute to a part of the default risk. Even if diversification has a positive impact on overall uncertainty, creditors continue to face challenges due to the idiosyncratic character of some of these losses. This is especially true for banks that lend in regional markets and those that acquire very illiquid assets. Accurate loss estimates are hard to come by under these circumstances, and the credit risk is difficult to transfer. A trade partner's failure to execute creates counterparty risk. The non-performance may be from a counterparty's reluctance to perform owing to an unfavourable price movement brought on by systematic reasons, or it may result from another unanticipated political or legal limitation. The main method for reducing nonsystematic counterparty risk is diversification. Similar to credit risk, counterparty risk is seen as a more ephemeral financial risk related to trade than ordinary creditor default risk. Furthermore, a counterparty's refusal to pay a contract may result from circumstances other than a credit issue.

The danger of a financing crisis is the best way to define liquidity risk. While some could mention the need to prepare for growth and unanticipated credit expansion, the risk here is better understood as the possibility of a financial crisis. Such a scenario would always be accompanied by an unanticipated occurrence, such as a sizable charge off, a decline in confidence, or a crisis

of significant national scope, like a currency crisis. In any event, portfolio structure and liquidity options are the main focuses of this risk management strategy. When a bank recognizes liquidity risk, it also recognizes liquidity as an asset in and of itself and the difficulty of designing a portfolio in the face of illiquidity worries. Operational risk is connected to issues with correctly processing, settling, and accepting or delivering deals in return for cash. It also occurs while preserving records, when processing systems go wrong, and when following rules.

Individual operational issues thus have a low possibility of happening in well-run businesses, but they expose a company to potentially expensive repercussions. The legal repercussions of credit, counterparty, and operational risks are distinct from the legal risks that are inherent in financial transactions. Even when all parties have previously behaved sufficiently and are completely capable of performing in the future, new laws, tax legislation, court rulings, and regulations may throw previously well-established transactions into question. For instance, environmental rules have significantly changed the value of older homes and represent significant threats to the lending industry. The management or workers of an institution's operations provide a second sort of legal risk. Recent instances in the thrift sector have shown how fraud, breaking rules or the law, and other behaviors may result in devastating loss. All financial institutions are exposed to some degree to these risks. Operational risk is mainly involved in non-principal or agency activities. Systematic, credit, and counterparty risk are immediately transferred to the asset owner in this situation since institutions do not own the underlying assets in which they trade. However, if the latter suffers a monetary loss, legal action against the agent is often tried. As a result, organizations that simply participate in agency transactions are indirectly exposed to legal risk. However, the enterprises in which the bank engages as a principal, or an intermediary, are what we are most interested in. The amount of business that the principals will generate, finance, sell, and contract to agents will depend on these activities. They must balance the reward and the portfolio's inherent risk while doing this. To ensure that the outcome satisfies the stated objective of increasing shareholder value, the principals must quantify the projected profit and assess the prudential of the different risks listed[7]–[9].

Systems of Bank Risk Management

The banking sector has long seen the challenge of risk management as the necessity to control four of the aforementioned hazards, namely credit, interest rate, foreign currency, and liquidity risk, which account for the majority, if not the whole, of their risk exposure. Although they are aware of counterparty and legal issues, they don't see them as being as pressing. In cases where counterparty risk is high, it is assessed via regular credit risk processes⁷ and often by the credit department. The majority of bankers would also see legal dangers as being caused by their credit choices or, more often, by improper procedure being used when entering into financial contracts. In light of this, examining bank risk management procedures basically entails examining how they handle these four risks. To standardize, assess, restrict, and manage each of these hazards, the approach described above is modified according to the risk being examined in each situation. This study of firm-level risk management starts with a discussion of risk management controls in each area to show how this is accomplished. The more challenging task of adding other, more nebulous risks like legal, regulatory, or reputational risk will be left till the end.

The complete firm's credit quality is communicated to top management each month through this reporting system, supposing rules are followed. There are two reasons why this report changes from one period to the next: either loans have entered or left the system, or the ratings of specific

loans have changed over that time. The first explanation is connected to typical loan turnover. New loans are issued and existing debts are repaid. The second reason for the credit quality report to alter is more significant. Variations over time show changes in the credit portfolio's predicted loan losses as well as changes in loan quality. In reality, if the rating system is accurate, credit quality reports should indicate changes in anticipated loan losses. The correlation between credit rating and ex post default rates has been shown by Moody's studies on their rating system. The outcome of internal 9 bank-rating systems of this kind should also be anticipated to be similar. The industry does not, however, have the same level of confidence in its predicted loss estimations due to the absence of relevant industry data needed to conduct an acceptable aggregate migration analysis. All credits must be watched over and examined on a regular basis in order for this sort of credit quality report to be useful. In order to guarantee the correctness of the rating connected with the lending facility, it is usual practice for all loans over a certain dollar volume to be examined on a quarterly or yearly basis. Additionally, a re-evaluation will be required in the event of a major modification to the terms related to the borrower or the facility itself, such as an increase or decrease in the value of the collateral. As a consequence, this procedure produces a periodic yet timely report card on the credit portfolio's quality and changes from month to month [10], [11].

CONCLUSION

Each risk type's specific risk control procedures are included in the bank's risk management system. Comprehensive credit assessment procedures, portfolio diversification, and the creation of sufficient loan loss reserves are all part of credit risk management. Market risk management makes use of sophisticated risk modeling methodologies, portfolio diversification, and risk hedging strategies. Maintaining sufficient liquid assets, creating contingency financing plans, and actively monitoring funding sources are the major components of liquidity risk mitigation. Strong internal controls, recurring audits, a technological foundation, and personnel training programs are all components of operational risk management. Establishing compliance frameworks, selecting compliance officers, and putting in place risk-based compliance programs are all part of compliance risk control. The bank risk management system includes both risk monitoring and reporting as essential elements. Banks set up systems to continuously monitor risks, enabling prompt detection and escalation of possible issues. Regular risk reporting to senior management and the board of directors aids in the adoption of suitable risk mitigation measures and helps decision-makers make well-informed choices. In order for banks to successfully traverse the complexity of the financial market and protect their financial health, a well-designed and executed bank risk management system is crucial. Banks may improve their resilience, safeguard the interests of stakeholders, and guarantee sustainable development by efficiently recognizing, analyzing, managing, and reducing risks. To ensure that banks remain proactive and adaptable in managing risks, the risk management system should be regularly examined and modified to handle new hazards, regulatory changes, and developments in risk management methods.

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CHAPTER 2

SERVICES' FUNCTION IN AN ECONOMY

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ABSTRACT:

Services are essential to the operation of contemporary economies and act as a catalyst for both growth and development. The basic roles that service play in an economy are examined in this abstract. Financial, healthcare, transportation, communication, education, and professional services are just a few of the many activities that go under the heading of services. Services also significantly affect globalisation and international commerce. Many nations participate in cross-border commerce and have specialisations in certain sectors, including banking, tourism, or IT services. Exporting services may boost a nation's ability to compete on the world market, earn foreign currency, and encourage economic integration. Furthermore, the importing of services enables economies to get access to international innovation and experience. Additionally, services support innovation and technical development. The service industry is known for its ongoing innovation and adaptability in response to changing client needs. This motivates research and development, which results in the creation of novel technology, innovative company models, and enhanced business procedures. The development of the digital economy and the integration of digital technologies have increased the importance of services as engines of innovation and change in the global economy.

KEYWORDS:

Development, Economy, Information, Services, Society.

INTRODUCTION

Since the industrial revolution, there has been a significant increase in labour movement. This subtle and mostly worldwide shift away from industry and agriculture towards services is taking place. Global communications, the development of business and technology, urbanisation, and the availability of cheap labour all contribute to migration. Every industrialised country has a strong service sector that leads in job creation, dominates national economies, and has the ability to improve everyone's quality of life. Professional and commercial services are expected to have the highest growth in these occupations, many of which are for highly trained knowledge workers. The magnitude of the migration to services over the previous 40 years is depicted for the top 10 postindustrial nations. In a discussion of economic development, we discover that employment in service sector industries dominates modern industrialised economies. This shows how economies naturally developed from preindustrial to industrial and then to postindustrial nations. The nature of how individuals live and how the level of living is measured is also determined by the economic activities of society. In terms of job prospects, contributions to economic stability, and sources of economic leadership, the character of the service industry is examined. Both consumer and commercial services are explored in relation to the finding that our postindustrial society is currently transitioning towards an experience economy. Information

technology, societal trends, and innovation are all credited with the expansion of the service industry. We start by presenting a number of service definitions [1]–[3].

There are several definitions of service, but intangibility and concurrent consumption are a common feature in all of them. A list of examples of service definitions is provided below: Services are actions, procedures, and outputs. A service is an action or series of actions that are more or less intangible in nature and that typically, but not always, occur in interactions between customers and service personnel as well as with physical resources, goods, and/or systems owned by the service provider in order to address customer issues. According to the majority of authorities, the services sector includes all economic activities whose output is not a physical good or building, is typically consumed at the moment of production, and provides additional value in ways that are fundamentally intangible concerns of its initial buyer.

Services are business ventures that one party offers to another, sometimes including time-based performances to produce desired outcomes in receivers or in things or other assets that buyers are responsible for. Customers of services anticipate receiving value in return for their money, time, and effort from access to commodities, labour, professional skills, facilities, networks, and systems; nevertheless, they often do not assume ownership of any of the underlying physical components. A service system is an arrangement of people, technology, other internal and external service systems, and shared information that creates value together. A service is an intangible, time-limited experience that is provided to a client who acts as a co-producer.

Services' Facilitating Role in the Economy

The ultimate consumer is just one of the many economic sectors that are connected by infrastructure services like communications and transportation. Infrastructure and distribution services both serve as middlemen and the channel of distribution to the ultimate customer in a complex economy. No sophisticated civilization can exist without infrastructure services since they are a requirement for an economy to industrialise. In a developed economy, specialised businesses may provide business services to manufacturing companies more affordably and effectively than manufacturing companies can do so on their own. As a result, advertising, advising, and other business services are increasingly being offered by service companies to the manufacturing industry.

The economy and quality of life depend entirely on service activities, with the exception of basic subsistence living, where individual households are self-sufficient. Think about how important it is for money to be transferred through the banking industry and for food to be transported to places where it cannot be produced. In order to bring past domestic tasks into the economy, a wide range of personal services, including dining establishments, lodging, cleaning, and child care, have been developed. In order to create a stable climate for investment and economic growth, government services are essential. For an economy to thrive and for its citizens to succeed, a country must provide services like public education, healthcare, well-maintained roads, clean air, and public safety.

Manufacturers' profitability is increasingly dependent on using value-added services. For instance, automakers have realised that financing and/or leasing cars may result in large profits. Otis Elevator discovered a long time ago that the revenue from after-sales maintenance contracts considerably outweighs the revenue from sales of elevator equipment. Companies are turning to network and communication services to increase revenues as personal computers become a

commodity product with very low margins. It is crucial to understand that services are not ancillary pursuits but rather fundamental facets of society. They are the backbone of an economy and are essential to its smooth operation. Last but not least, the service sector not only supports but also makes feasible the industrial sectors' operations that produce commodities. Services are the driving force behind the current shift to a global economy.

Economic Change

Only 3 out of every 10 American employees were working in the services industry in the early 1900s. The remaining employees were engaged in both industry and agriculture. By 1950, 50% of the workforce was employed in the service sector. Approximately 8 out of every 10 people are employed in services today. Our society has undergone a significant development over the past 90 years, shifting from being mostly centred on manufacturing to being predominately based on services. These occurrences are not shocking to economists who research economic growth. According to Colin Clark, employment will inevitably flow from one area of the economy to another as countries industrialize.¹ As one sector's productivity rises, the labour force will move into a different one. This finding—the Clark-Fisher hypothesis—leads to a categorization of economies by taking into account the predominant labour activity.

Today, a vast majority of nations are still in their early stages of development. The extraction of natural resources from the land is the foundation of these economies. Their output is minimal, and their revenue varies depending on the cost of commodities like sugar and copper. More than 70% of the labour force works in extractive industries in most of Asia and Africa. The United States' century-long strong growth in the employment of the service sector demonstrates the almost same fall in employment in agriculture. Keep in mind that the "industrial revolution" started in the US about 1850, when the employment rate in manufacturing was roughly equivalent to what was anticipated for 2010. For all the countries, this sector employment pattern is reproduced. However, service employment is already close to 50% in Brazil, China, and India, three growing economies. We can see that migration to the service sector is an expected development of the workforce in all countries, and that prosperous industrial economies are founded on a robust service sector. The rivalry for services is also international. Take into account the expansion of call centres in India and Japanese commercial banking. However, because so many nations create obstacles to protect local enterprises, trade in services continues to be difficult. For instance, foreign firms are not allowed to sell insurance in Mexico or India [4]–[6].

Economic Development Stages

Social historians' work includes describing the past, the present, and the most likely future of our society. The information that follows is based on writings by Harvard University sociology professor Daniel Bell. To put the idea of a postindustrial society in perspective, we must contrast its characteristics with those of preindustrial and industrial societies.

Prior to Industrialization

Most of the world's population currently lives in a pre-industrial culture or in a subsistence economy. The idea of life as a battle with nature is prevalent. The labour force engages in agriculture, mining, and fishing using brute force and custom. The weather, the quality of the soil, and the availability of water are few examples of the components that influence life. Nature

influences life's rhythm, and the pace of labour changes with the seasons. Low productivity with little technological traces. The extended home serves as the centre of social interaction, and the big population and poor productivity together produce high rates of underemployment. Many people look for jobs in the service industry, but in the domestic or personal sector. Agrarian preindustrial communities are based on custom, routine, and authority.

Occupational Society

Production of commodities is the main activity in an industrial society. Making more with less is the main topic of discussion. The production per labor-hour is multiplied by energy and machinery, which also shape the character of work. The operational "law" that gives rise to everyday activities and the idea of the semiskilled worker is the division of labour. In the manufactured setting of the factory, work is done as employees maintain the machinery. Life becomes into a game that is played against a manufactured environment, one that is made up of cities, factories, and structures. Life moves at a machine-paced speed, and time clocks and rigorous work schedules rule it all.

Schedules and a keen understanding of the value of time are hallmarks of an industrial culture. The quantity of products becomes the yardstick by which the level of living is judged, however it should be noted that the complexity of coordinating the production and distribution of goods leads to the development of massive bureaucratic hierarchies. These organisations are structured such that each member has a certain task, and they frequently operate impersonally, treating people like objects. In a society where each individual's choices in the marketplace are added up, the individual is the basic unit of social existence. Of course, the opposing power of labour unions helps to lessen the relentless strain of industrial life.

Postindustrial Culture

The standard of living in an industrial society is determined by the quantity of products, but in a postindustrial society, it is determined by the quality of life as measured by services like health, education, and recreation. The professional is the principal character because knowledge is the most important resource rather than physical power or energy. Nowadays, people play a game called life. Political claims and social rights increase, making social life increasingly challenging. Society learns that individual decisions may have a domino effect on society as seen by environmental damage and traffic congestion. The social unit is changed from the person to the community.

Bell contends that there are several methods in which societies transition from industrial to postindustrial. To support industrial growth, there is a natural development of services like transport and utilities. A greater number of people are involved in non-manufacturing tasks like maintenance and repair when labor-saving equipment are included into the production process. Second, as more people live in the world and consume more commodities, the wholesale and retail commerce, as well as banking, real estate, and insurance, all rise. Third, when income rises, less money is spent on basic requirements like food and housing, which leads to an increase in demand for durable goods and eventually services. [7]–[9]

DISCUSSION

A statistician from Prussia in the 19th century named Ernst Engel made the observation that when family earnings rise, the proportion of money spent on food and durables declines while

consumption of services that represent a desire for a better quality of life rises in line. This phenomenon is comparable to the Maslow hierarchy of requirements, which states that when one's fundamental needs for food and shelter are met, one seeks material possessions before turning to personal growth. Health and education, however, are prerequisites for the "good life". Health services have evolved into an essential component of contemporary civilization as we work to eradicate sickness and lengthen life expectancy.

A postindustrial society demands its populace to have professional and technical abilities, making higher education a requirement for entrance. Additionally, demands for increased services and social fairness result in an expansion of government. Environmental protection issues necessitate government action and highlight how interconnected and even global postindustrial issues are.

The Service Sector's Nature

Many people associate the word "service" with servitude and the image of waiters and hamburger flippers. However, it would be inaccurate to say that the significant growth in the service industry over the past 50 years has primarily been driven by low-wage or low-skill positions at fast-food outlets and department shops.

Changes in job patterns will have an impact on people's living arrangements, educational needs, and, as a result, the types of organisations that will be crucial to that society. The necessity for the semi-skilled worker who could learn the basics of machine maintenance in a few weeks arose as a result of industrialization. A shift to white-collar occupations has resulted from the following expansion of the service industry. The year 1956 was a turning point for the US. The number of white-collar employees surpassed the number of blue-collar workers for the first time in the history of industrial civilization, and the difference has been growing ever since. The most intriguing development has been in the professional-technical and management domains, which are occupations requiring a college degree.

Today's economic leadership comes from the service sector. To accommodate the increase in female workers and to fill the void left by the lack of employment prospects in manufacturing, the service sector has added more than 44 million new jobs during the previous 30 years. Approximately 70% of the country's national revenue is currently generated by the service industry. This shouldn't come as a surprise as there are restrictions on how many automobiles a customer can use as well as how much they may eat and drink. However, there is an insatiable need for services, particularly those that are cutting edge. Services that represent an ageing population, such geriatric health care, as well as those that reflect a two-income household, like nursery, are now in demand.

A less cyclical national economy has been developed by the expansion of the service sector. In contrast to job losses in manufacturing during the course of the last four recessions in the United States, employment in service industries has grown. This shows that although customers are willing to put off buying items, they won't do without necessities like health care, banking, education, and public safety services like fire and police protection [10]. The fact that services are recession-resistant can be attributed to a number of factors. First, unlike items, which may be inventoried, services cannot be done so by nature. In contrast to the demand for produced items, the demand for services is steadier since consumption and production happen at the same time. Many services continue to operate even while the economy is struggling. Hospitals are busy as

normal, and although commissions in the real estate, insurance, and security industries may decline, no job cuts are necessary. Second, during a recession, both consumers and corporate organisations postpone capital expenditures in favour of repairing and surviving with already-owned equipment. As a result, maintenance and repair service employment are produced.

The Career of the 21st Century

The biggest anticipated shift in employment during the next ten years will be in the fields of health care, social assistance, and professional and commercial services. According to Michelle L. Casto, these high-skill occupations will display the traits listed below: More options for everyone to pursue careers. The ability to select from a range of positions, duties, and assignments. More freedom in where and how work is done. More discretion over your time. More opportunities for personal expression through your job. The capacity to modify your life's job to reflect your principles and interests. A greater chance to acquire new skills by working in varied locations and sectors. A mentality of self-empowerment. Enables one to create circumstances or positions in which one can satisfy a gap in the world's needs. Possibility to advertise oneself as an independent freelancer or service provider.

The nature of the service economy has evolved past the transactional connections that characterised earlier services. Think about how Starbucks and Disney World have characterised the experiences offered by their respective offerings. The characteristics of various economies in the historical development from agricultural to experience are described. Pay close attention to the phrases used to describe each economy to recognise the slight distinctions. Take note of the additional divisions made between consumer services and business services in the experience economy.

Experience with Customer Service

By involving and relating to the client in a unique and lasting way, experiences bring value. We go from a service economy to the new experience economy as firms formally charge for the unique encounters they produce. The least demanding degree of experience is entertainment, whereas escapist demands the most dedication from the user. Designing the consumer service experience is guided by five principles. The Forum Shops in Las Vegas, which are designed with Roman columns and have salesmen wearing togas, provide as an example of the experience's theme. At the O'Hare Airport Parking Garage, where each floor is painted with a different colour and where distinctive music is played to aid returning travellers find their parked cars, an example of harmonising perceptions with positive signals can be seen. The inventive usage of talking trash cans at a Cinemark Theatre in Austin, Texas, serves as an illustration of how to eliminate negative signals. A mix-in memento is a piece of memorabilia, such sending Club Med group photos of tourists. The Rainforest Café in Las Vegas offers an opportunity to utilise all five senses.

Experience in Business Services

Value is created from the coproduction or collaborative character of the connection, as we see in a consultant engagement, for business-to-business services. Three aspects of the new business service experience are:

1. **Creating Value Together:** The value that is derived from the connection includes the client as a coproducer. The client contributes to the provision of services.

2. **Relationships:** Since client relationships are a source of innovation and distinction, they are of utmost significance. Long-term connections make it easier to adjust service provisions to customers' demands.
3. **Capability for Service:** Offer service capacity to handle changes in demand while maintaining service quality. The customer's perspective is used to determine service quality the most.

B2B service is really about producing, enabling, solving problems, and using innovation to utilise information that is enriched and made accessible for use by others rather than being consumed during the transaction.

Growth Drivers for the Service Sector

Innovation, information technology advancements, and shifting demographics that generate new needs all contribute to the expansion of the service industry. A significant influence of information technology may be seen in the development of digital services. The two axes' arrows indicate the expected development direction for the economy's services and information sectors. Observe how the growth of information services is outpacing that of tangible goods.

Technology Information

The push to make information technology devices smaller allows for alternate delivery formats and eliminates the requirement for physical closeness for service delivery. A good example of this is the Blackberry, which is designed to be Internet-connected. For instance, banking has evolved into an electronic service with online access to personal accounts for money transfers and bill payments. In the medical field, X-rays are digitalized and sent offshore for radiologists to interpret. As a result, information technology has changed the way services are delivered and produced new service value chains with fresh business prospects as inventive middlemen. The three claims made by Uday Karmarkar and Uday Apte are as follows:

Future "information chains" rather than supply chains will produce the majority of the US GDP, and the majority of managers will work in the information industries. Process economics and its effects on the setup and operation of information chains and processes play a significant role in how these information chains and industries are managed. The economics of processes and value chains are based on and driven by technological innovations.

Innovation

A push theory of innovation may be used to describe the technology- and engineering-driven product development approach. In the laboratory, a scientific discovery that turns out to be a problem-solving solution sparks the idea for a new product. One illustration of this innovation process is the 3M experience with Post-it notes. A weak adhesive was discovered in the lab, but it was creatively used as glue to temporarily attach messages to things without leaving a mark when removed.

However, the introduction of new product technology does have a side-effect on the innovation of services. For instance, the DVD player gave rise to the video rental industry and a resurgence in interest in classic films. The invention of Netflix, which mails DVDs to your home, was the next breakthrough. For the purpose of exchanging files in the military and sciences, the Internet and World Wide Web were created as a reliable network of connected computers. It evolved into

a crucial tool for e-commerce and, more recently, a platform for social networks like Facebook and LinkedIn. Of course, it also made it possible to use Google to do global searches. The Cash Management Account, which Merrill Lynch launched, is a good example of the pull theory of innovation in the services sector. Because private investors wanted to earn an interest rate that was greater than those already offered on passbook bank deposits during the 1980s period of high interest rates, a demand to fund short-term business cash flows developed. An attentive contact staff member who notices an unmet client demand is frequently the source of a new service concept. As an illustration, a hotel may start offering an airport shuttle service after noticing a strong demand for taxi service.

Exploiting knowledge from other activities might also result in service innovation. For instance, sales data from auto parts retailers may be utilised to pinpoint common failure points in certain automobile models. Both the producer, who can make engineering adjustments, and the store, who can identify consumer issues, can benefit from this knowledge. Additionally, the innovative use of information might lead to the creation of new services or improve already existing ones. For instance, a financial institution's yearly summary statement of transactions is useful for filing taxes.

Testing new service concepts is a challenge for service entrepreneurs. Before starting full-scale manufacturing, the process of product development involves creating a lab prototype for testing. Burger King is one company that has made an attempt in this area, having purchased a warehouse in Miami to house a copy of its standard store. This model restaurant was created to represent how the layout would need to modify to accommodate additional amenities like drive-through window service and a morning menu.

Changes in the Population

An intriguing historical example of how a societal revolution gave rise to a new service economy is the French Revolution. There were just two restaurants in Paris prior to the revolution; immediately after, there were more than 500. After being forced to give up their private cooks, the ousted nobles decided that the best way to deal with their unemployment was to create their own restaurants.

The U.S. population's ageing is a significant factor in determining future service requirements. There will be a rise in demand for financial and healthcare services when the baby boom generation retires. Due to longer lifespans, there is a greater need for health care services to support active lifestyles. Investment advice and financial management services are in demand as defined contribution plans take the role of pension plans. Finally, the demand for aeroplane trips, ocean cruises, dining establishments, and hotel rooms will be influenced by the amount of free time available.

CONCLUSION

In conclusion, we have found that the employment in the service sector dominates the modern industrial economy. Manufacturing employment eventually transferred to services, just like farming occupations did in the 19th century as a result of labor-saving technologies. An experience economy is already evolving as we enter the new millennium to meet increased service demands. By showing that the particular qualities of services necessitate a management

strategy that is fundamentally different from that found in manufacturing, helps readers build new managerial abilities.

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CHAPTER 3

ANALYSIS THE ASPECTS OF SERVICES

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ABSTRACT:

The various qualities of services in this chapter. Although many procedures are identical, the environment for services is sufficiently different for us to doubt the straight transfer of conventional manufacturing-based methodologies to services without some adjustment. Failure will result from failing to recognise the distinctions between manufacturing and service needs, but more significantly, understanding the unique characteristics of services will provide managers insights for smart and creative management. Without an understanding of the service delivery process that generates the client experience, service management cannot advance. Because the purchase of a product is often followed by some facilitating service and the purchase of a service sometimes contains enabling products, it may be difficult to distinguish between a product and a service. Each purchase consists of a combination of products and services. Each of our examples has a primary objective or core activity that is either a good or a service. However, ancillary products and services enhance the package made available to the buyer. Finally, a variety is often utilised to set the package apart from those of rivals.

KEYWORDS:

Customer, Delivery, Management, Product, Service.

INTRODUCTION

Manufacturers looking to generate service income when their product has become a commodity with narrow margins have not overlooked the possibility to combine services with a product. For instance, Otis Elevator, aware that the after-sales maintenance contract offers a reliable cash flow for the life of the facility, is prepared to take a sharp pencil when submitting its proposal for escalators in a new retail centre. Servitization is the planned pairing of a service with a product as a means of increasing income for producers.

Why study services? is a topic that we address at the chapter's outset. includes an examination of the unique traits of service operations. It illustrates the non-ownership nature of services and the management consequences. What Exactly Is a Service? may be addressed using the service package, which consists of explicit and implicit advantages that are generated inside of a supporting facility employing information and items that facilitate. When the delivery process is determined by the level of customisation and labour intensity, services from various sectors may be categorised into groups that face comparable operational issues. To acquire strategic insights, services are lastly divided into five categories.

These discoveries lead to an open-system viewpoint on the service manager's job. In other words, the service manager must manage a situation where consumers are involved in the delivery system. In contrast, industrial activities that are "buffered" from the client by a stockpile

of completed items are separated from them. Therefore, manufacturing has often functioned as a cost centre with an emphasis on procedural effectiveness. Service managers must be concerned with both efficient and successful service delivery since they often function as profit centres [1]–[3].

Characteristics that Set Service Operations Apart

It is necessary to distinguish between inputs and resources when discussing services. Resources for services include money under the control of the service management, employee labour, and facilitating items. Inputs for services are the actual clients themselves. As a result, for the service system to work, clients must participate in the service process via interaction. It is difficult to match service capacity with demand since customers often come at their own discretion and with specific expectations of the service system.

However, the emphasis of activity is on processing information rather than people for certain services, including banking. In certain circumstances, information technology, such as electronic money transfers, may take the place of physically depositing a payroll cheque; the consumer need not be present at the bank. We'll mention some exceptions when we talk about what makes service operations unique. It should be highlighted that a lot of the distinctive qualities of services, such as client involvement and perishability, are interconnected.

Participation of the Customer in the Service Process

The customer's participation in the service process necessitates a level of facility design consideration that is not typical of conventional industrial operations. Because they initially see the product in the attractive settings of a dealer's showroom, potential purchasers are unconcerned with the fact that vehicles are manufactured in a hot, dusty, loud factory. The physical surroundings of the service facility must be attended to since the client is on-site, although they do not need to be for the factory. When a service facility is created with the client in mind, the quality of service is improved because for the consumer, service is an experience that happens in the front office. The customer's view of the service may be impacted by the interior design, furniture, layout, noise, and even colour. Compare the emotions you would get if you imagined yourself at an aircraft terminal against a conventional bus stop. Naturally, passengers are not permitted in the back office of the journal, which is run in a setting akin to a factory. To boost public trust in the service, several cutting-edge offerings have exposed the back office to public observation.

Realising that the customer may participate actively in the process is crucial when offering a service. A few instances will show how the customer's expertise, experience, motivation, and even honesty all have a direct impact on how well the service system performs:

1. The concept that consumers are eager to take an active part in the retailing process is the foundation for the success of supermarkets and bargain retailers.
2. The efficacy of the attending physician may be significantly impacted by the correctness of a patient's medical record.
3. A student's efforts and contributions are a major factor in determining their education.

The fast-food establishments that have drastically decreased the usual number of serving and cleaning staff serve as the greatest examples of this method. The consumer is asked to clean the table after the meal in addition to placing the order from a small menu. Naturally, the client

expects quicker service and less priced meals to make up for these inputs, but there are other, subtle ways in which the service provider gains. First off, there are fewer employees who need management and extras like perks. More crucially, the customer supplies the labour just when it is needed, allowing service capacity to vary more immediately with demand than it would otherwise due to the size of the hired employees. The client performs tasks to support the work of the service employees as required, acting as a temporary employee.

In a culture that values independence, like the United States, this tactic has found widespread approval. The client shifts from being an inactive consumer to an active producer of the gross domestic product. However, it's becoming more typical practise to exclude the consumer from the process. Take retail banking as an example, where clients are urged to utilise computer or telephone transactions, direct deposit, and automatic-debit bill payment instead of physically visiting the bank. Additionally, the emergence of online purchasing lends the term "window shopping" a new meaning.

Simultaneity

A crucial aspect of service management is the fact that services are generated and consumed instantaneously and cannot, therefore, be preserved. The typical manufacturing technique of employing inventory as a buffer to absorb changes in demand is not possible because of the inability to inventory services. For a factory, an inventory of completed items acts as a useful system border, dividing internal planning and control processes from the outside world. As a result, the production plant may be run at its most effective constant output level. Inventory serves as a buffer between the productive system and consumer demand in the closed system operation of the plant. Services, on the other hand, function as open systems, with demand fluctuations having a full influence on the system.

Another way to decouple the steps of a manufacturing process is to employ inventory. The decoupling for services is accomplished via customer waiting. In industrial processes, inventory management is a significant concern; however, in service industries, the issue is client waiting, or "queuing." Customer wait times are taken into consideration while choosing service capacity, facility utilisation, and idle time usage. A lot of options for quality-control intervention are also eliminated by the concurrent production and consumption of services. While a product may be checked before to delivery, services must depend on additional safeguards to guarantee the calibre of the services provided.

DISCUSSION

Perishability: A service is an ephemeral good. Think about an empty aeroplane seat, a hotel or hospital room or a dentist's waiting room for an hour. Each time, there has been a missed chance. A service cannot be kept, thus if it is not utilised, it is permanently gone. Because client demand fluctuates greatly and there is no way to develop inventories to absorb these changes, managing the full utilisation of service capacity becomes difficult.

The demand for services from consumers often follows a relatively cyclical pattern over short periods of time, with significant fluctuation between the peaks and troughs. The habit of having lunch between twelve and one o'clock in the afternoon puts a strain on eateries to handle the midday rush. 60 percent of all letters are received at the post office between 4 and 8 PM thanks to firms' practise of day-end posting. It was discovered that in Los Angeles, the demand for

emergency medical services ranged from a low of 0.5 calls per hour at 6 AM to a high of 3.5 calls per hour at 6 PM. The peak-to-valley ratio for fire alarms in New York City on a typical day was 7 to 1.

Seasonal variations in demand lead to activity spikes for transport and leisure services. As many students are aware, tickets home are sometimes reserved months in advance of holidays like spring break. The management has three fundamental choices when dealing with changing demand and a capacity to supply the service that is time-limited [4]–[6].

Intangibility

Products are objects, while services are ideas and concepts. As a result, advancements in services are not patentable. To reap the rewards of an innovative service model, the company must grow incredibly quickly and outpace any rivals. Franchising has been used as a means of securing market niches and building a brand. By franchising, a parent company may sell its concept to a local businessperson, saving cash while maintaining control and lowering risk.

Customers often have trouble with services' intangible character. Before making a purchase, a buyer may inspect, feel, and test a product's functionality. However, for a service, the client must depend on the standing of the service provider. The government has stepped in to ensure acceptable service performances in numerous service sectors. The government may reassure customers that some service providers' training and test results satisfy specified criteria by using registration, licencing, and regulating. As a result, we discover that a registered professional engineer must approve public building plans, a doctor needs a licence to practise medicine, and the power company is a regulated utility. However, the government may be limiting innovation, putting up hurdles to entrance, and overall restricting competition in order to "protect" the customer.

Heterogeneity

Customers get different services from one another as a consequence of the intangible character of services and the customer's participation in the service delivery system. However, the relationship between a consumer and a service provider makes it possible for a more fulfilling human job experience. Work activity in the service industry is often focused on people rather than on goods. However, there are exclusions for services that handle client data or property. With the advent of self-service technologies, the degree of labour intensiveness in the restricted customer-contact service sectors has dramatically decreased.

Even the advent of automation might promote personalization by removing the mostly impersonal, repetitive duties, allowing for more individualised attention to be given to the remaining job. In addition, providing individualised service opens up possibilities for service variation. However, this is not always a negative thing unless they see a big difference in quality. A consumer anticipates being treated equally and getting the same level of service as everyone else. The key to guaranteeing consistency in the service offered is the creation of standards and personnel training in appropriate practises. Because it is relatively impossible to keep an eye on every worker's production, consumers help with quality control by providing feedback.

The direct interaction between a consumer and an employee affects service relationships as well. It has been known for autoworkers with issues against the company to sabotage the product on the production line. The last examination, presumably, will make sure that any such autos are

fixed before delivery. However, since the employee is the company's only point of contact with clients, an unhappy service employee might do the company irreparable damage. The service manager must thus be concerned with both the attitudes and the performance of the staff. J. In the service industry, Willard Marriott, the chain's founder, famously stated, "You can't make happy customers with unhappy employees." The organisational objectives may be internalized via training and genuine care for employee wellbeing.

Services' Non-Ownership Characteristics

From a marketing standpoint, services do not entail ownership transfer, in contrast to products. What are consumers purchasing when they pay for a service if they don't get ownership? According to one perspective, clients are given temporary access to or rentals of resources, such as a hotel room for the night or an aeroplane seat. By distributing the usage of their resources, service businesses share them with their clients. Whether it be the use of physical assets, technological resources, or human labour, customers do not purchase assets; rather, they have access to them for a certain period of time. You'll see that in each case, users often use the service provider's resource at the same time as other customers.

Management issues arise when consumers share resources. The ease of a rental office location for pickup and drop-off is crucial when renting things. For instance, airports have car rental facilities. However, Enterprise stands out as an anomaly since it started supplying cars to residents rather than just tourists. It is important and continuing to maintain the rental item and restore it to appropriate condition between client rentals. Customers who rent places and spaces may benefit from the economies of scale that come from sharing a bigger room with many users while yet feeling somewhat isolated and private. For airlines, the extra-large business class seats and leg space help to justify the comparatively expensive ticket price. Housekeeping is a regular task carried out in between times of consumer use for any shared facility. Managing labour and expertise resources has two challenges: first, maintaining resource skills up to date via training; and second, preventing slack times when hours are not chargeable. For administrators of physical facilities used by a high number of consumers, managing lineups and crowd management is a difficulty. Disney, for instance, has perfected the art of reducing wait times by adopting a variety of strategies, such as distractions and letting visitors schedule time slots for rides hours in advance. Customers rely on and anticipate access 24/7, therefore uptime is essential for network services. Continuous availability is thus necessary, but since consumption changes according to the hour and day of the week, the service's price must be innovative and adaptable [7]–[9].

The Service Bundle

Service managers find it challenging to describe their goods. Although the intangible nature of services contributes to this issue, it is the customer's involvement in the process that raises questions about the quality of the overall customer experience. Take a look at the following instances. Given that many customers see a sit-down restaurant as a place to catch up with friends, the ambience is just as vital as the food. A customer's perception of a bank may be swiftly developed based on the friendliness of the teller or the length of the waiting line. A service package is described as a collection of products, services, and information offered in a certain setting.

1. **Supporting Structure:** The material requirements that must be met before a service may be provided. A golf course, a ski lift, a hospital and an aircraft are a few examples.

2. **Supporting Products:** The goods the consumer provides, whether they be things they buy or consume. Golf clubs, skis, food, extra vehicle parts, legal papers, and medical supplies are a few examples.
3. **Information:** Data that is readily accessible from the client or the service provider to allow for effective and personalised service. Examples include online medical records for patients, airline websites that display available seats on flights, customer preferences from previous visits, customers' GPS whereabouts for taxi dispatch, and Google map links on hotel websites.
4. **Uncoverable Services:** The advantages that are immediately perceptible to the senses and are the core or inherent qualities of the service. Examples include the lack of discomfort after dental work, a car that runs smoothly after a tune-up, and the fire department's reaction time.
5. **Unstated Services:** psychological advantages that a consumer could only dimly see, or extrinsic aspects of the service. A degree from an Ivy League institution, the confidentiality of a loan office, and worry-free vehicle repair are a few examples.

The consumer experiences each of these attributes, which serve as the foundation for how they see the service. The service manager must provide the client with a comprehensive experience that is consistent with the targeted service package. Take a low-cost motel as an example. The auxiliary building is a block structure made of concrete with simple furnishings. The bare minimum of facilitation items are soap, towels, and tissue paper. Reservations are made using information on room availability. A cosy bed in a spotless room is the explicit service, while implicit services may include a helpful front desk agent and the safety of a well-lit parking lot. Any deviations from this service pack-age, such the addition of bellhops, would ruin the impression of a bargain.

Services may be categorised along a continuum, from pure services to varying degrees of mixed services, using the significance of enabling commodities in the service package. A "pure" service may be psychiatric counselling as there are no enabling products involved. More enabling products are often needed for car maintenance than for haircuts. Given the wide range of service types, it is challenging to make generalisations regarding service management. To comprehend the difficulties service managers face, it is crucial to recognise the distinctive characteristics of the service environment.

Services by Delivery Process Grouped

All service organisations need to be able to use service management concepts. Hospital administrators, for instance, may get insight into their own industry from the restaurant and hotel industries. Because the professional is qualified to give a specialised clinical service but lacks commercial management skills, professional services like consulting, law, and medicine have unique issues. Therefore, leading professional service businesses offers exciting job options for graduates of business schools.

A service categorization framework may facilitate shared learning and help us organise our discussion about service management. As proposed, hotels may teach hospitals about housekeeping. Less visibly, dry cleaning businesses may learn from banks. By offering laundry bags and after-hours drop-off boxes, cleaners can adopt the ease of night deposits enjoyed by banking consumers. Scheduling a consulting engagement is comparable to organising a legal defence for professional businesses or getting a medical team ready for open heart surgery [10].

Roger Schmenner suggested the service process matrix as a way to show that management issues are widespread in the service sector. Services are categorised in this matrix according to two factors that have a big impact on how the service delivery process is structured. The ratio of labour cost to capital cost, which is measured in the vertical dimension, represents the level of labour intensity. Due to their substantial investment in plant and equipment compared to labour expenses, capital-intensive services like airlines and hospitals may be found in the top row. Schools and legal aid are two examples of labor-intensive services that are located in the bottom row due to their high labour expenses in comparison to their capital needs.

As a marketing variable that reflects the capacity of the client to individually influence the nature of the service being provided, the horizontal dimension gauges the level of customer involvement and customization. When a service is standard rather than customised, less communication between the consumer and the provider is required. For instance, a meal at McDonald's, which is put together from prepackaged ingredients, is provided with limited modification and little contact between the client and the service staff. In contrast, for the diagnostic and therapeutic stages to be successful, a doctor and patient must work closely together. Additionally, patients like to be treated as unique people and have their medical requirements catered to. It's crucial to remember, too, that the engagement brought on by high customisation might lead to issues with how the service delivery process is managed.

In order to convey the nature of the services shown, the four quadrants of the service process matrix have been given names according to the two dimensions. Similar to a line-flow manufacturing facility, service factories provide a standardised service with a significant capital commitment. Service businesses allow for additional service personalization, but only in high-capital settings. When using a mass service, customers will get an undifferentiated experience in a labor-intensive setting, while when using a professional service, they will receive individualised attention from highly skilled professionals.

As managers of services in all categories whether service factories, service shops, mass services, or professional services face comparable difficulties. In order to stay competitive, industries with high capital requirements like airlines and hospitals need to closely watch technology developments. Managers must forecast demand to sustain equipment utilisation due to the significant capital expenditure. Managers of highly labor-intensive services, such those provided by lawyers or doctors, must, on the other hand, focus on people issues. The level of personalization has an impact on the capacity to manage both the customer's impression of the service and the quality of the service being provided. The methods for dealing with each of these problems will be covered in following chapters.

Services of Classification for Strategic Insights

The variety of service businesses in the economy and their various client interactions make it difficult to have a broad discussion of service strategy. However, to avoid the narrow perspective that is common among service managers that ideas do not transfer from one business to another, strategic insights that cross industry borders are required. For instance, because both deal with a customer's property, competitive methods utilised in banking services may be applicable to washing services. The idea of the brand-new laundry drop-off and pick-up service offered at commuter train stations is comparable to that of bank automatic teller machines seen in grocery stores. The categorization frameworks that Christopher Lovelock created below help us understand potential strategic dimensions that cut across industry borders.

Types of Services Act

The immediate beneficiary of the service and the physical substance of the service are two different perspectives on the service act. This results in the creation of four categories: tangible actions performed on the customer's assets, such as financial services, tangible actions performed on the customer's person, such as passenger transportation and personal care, and tangible actions performed on the customer's possessions, such as laundry and janitorial services.

This system of categorisation calls into question how traditionally services have been provided. For instance, is physical presence required just at the beginning or end of the service, or is it not required at all? Customers must either go to the service facility to participate in the process if they are required to be there, or the server must go to the client. This has important ramifications for facility design and personnel interactions since how a client is seen will affect how they perceive the service. Additionally, concerns are expressed about how the location of the facility and its operating hours affect client convenience. The use of ATMs and other electronic communication tools by retail banks as alternatives to face-to-face engagement is not unexpected. By considering the service's nature imaginatively, one may find more practical distribution methods or perhaps a product that can replace the service. For instance, movie DVDs and concert CD recordings provide a practical alternative to physical attendance while simultaneously serving as official library records of the events.

Connection with Customers

Because consumers trade directly and often in person with service providers, service businesses have the chance to develop long-lasting connections with their clients. In contrast, a distribution channel made up of some mix of distributors, wholesalers, and/or retailers has typically kept producers apart from the final end user. This graph illustrates the worth of customer membership to the company, although a lot has changed since it was initially published in 1983. For instance, large hotel chains and car rental companies now provide discounts via frequent user programmes alongside airlines. Additionally, some exclusive toll roads provide yearly permits that may be affixed to a vehicle. So that the vehicle does not have to stop to pay a toll, these passes electronically activate a debit. An important competitive advantage for a service organisation is knowing its consumers. The ability to target marketing and provide each client with individualised service is made possible by having a database of customers' names, addresses, and use of the service. Customers gain from membership because it is convenient to pay set yearly fees and because they feel appreciated and will sometimes get benefits.

Adaptation and Decision-Making

There is a chance to customise a service to the demands of the user since services are developed as they are consumed and the client is often a participant in the process. It takes strategic judgement to decide which quadrant to place a service in. For instance, conventional movie theatres only have one screen, hence they belong in the low-low quadrant. However, the majority of brand-new movie theatres are constructed with several screens, providing for some degree of customisation. Burger King is a fast food restaurant that promotes "Have it your way," allowing some personalization of their "Whopper." The numerous sorts of food-service businesses serve as an example of how different portions of an industry might occupy each quadrant. However, the service delivery system is impacted by a strategy decision to provide greater customisation and empower service people to exercise judgement.

Demand and Capacity Characteristics

We have found that service managers have difficulties due to the time-perishability of service capacity since these managers are unable to produce and store goods for future sales. The degree of demand and supply mismatches differs between service sectors, notwithstanding this.

Delivery Method for Services: The manner of service delivery comprises two components: a geographic component and a degree of client involvement. Services with many locations have substantial management implications for guaranteeing the service's quality and consistency. Chapter 10 discusses the precise strategic ramifications of facility location. Arm's-length transactions are becoming increasingly popular as a result of advancements in electronic communications since they provide customers with ease and effective service delivery. For instance, UPS consumers may create shipping labels and track items from home using the Internet, reducing the need for face-to-face interactions with service providers. Part Two: Designing the Service Enterprise covers the strategic ramifications of a service delivery system's architecture as well as its impact on how customers and service organisations interact.

Logic Based on Service

A service-centered alternative to the conventional goods-centered paradigm for defining economic transaction and value generation is service-dominant logic. The main contention is that, when applied to the use of competences for the benefit of another via trade, service is the essential foundation of value creation. Facilitating items may be included in the transaction as a part of the service package, but value-in-use is the key element.

The IBM Almaden Research Center's newly established "service science" discipline, Service Science, Management, and Engineering, is built on the principles of service-dominant logic. SSME refers to the use of scientific, managerial, and engineering disciplines to tasks that one organisation successfully completes for and in collaboration with another organisation or person. The goal is to increase the predictability of increases in productivity, quality, performance, compliance, development, and learning in work-sharing and risk-sharing interactions. Transferring and exchanging resources inside and across service systems is at the core of service science. In order to co-create value for the service systems taking part in the interchange of resources inside and between systems, it is the normative role of service systems to link people, technology, and information via value propositions.

A View of Services from Open Systems

The nature of service organisations is sufficiently distinct to necessitate distinctive management methods that go beyond the straightforward adoption of the management techniques found in product production. The distinguishing features advise expanding the system perspective to include the client as a participant in the service process. The client is seen as an input that the service process transforms into an output with a certain level of pleasure. In an open system with the customer as a participant, the production and marketing duties are both a part of the job of the service operations manager. Services do not lend themselves to the classic manufacturing separation of the marketing and production operations, with completed products inventories serving as the interface. In everyday service operations, marketing performs two crucial roles: teaching the customer to take an active role in the service process and "smoothing" demand to meet service capacity. This marketing effort has to be integrated with staffing numbers, delivery

process management, and evaluation. For service organisations, integrating operations and marketing is a requirement.

For services, the process itself is the finished product. The closed-system approach used in production is refuted by the customer's participation in the service process. Services cannot be managed effectively using methods used in a lone plant producing physical goods. The process is no longer machine-paced, and the result can no longer be readily checked for specs compliance. Instead, varied expectations from the consumers necessitate the need for several performance indicators. Customers are interacted with directly by service staff, with limited room for managerial involvement. In order to do this, personnel must get substantial training and be empowered to behave properly without direct supervision.

Additionally, consumer perceptions of service quality are dependent on the whole service experience rather than simply the specific service provided. To guarantee that the implicit service is valued by the client as well, consideration for personnel attitudes and training becomes necessary. When evaluated from the customer's point of view, the whole service process raises questions about everything from the facility's aesthetic design to enjoyable distractions in waiting areas. The consumer may also be seen as a co-producer when using an open-systems approach to services. Giving customers the opportunity to actively engage in the service process may boost efficiency and provide businesses a competitive advantage.

CONCLUSION

In conclusion, managing an open system calls for different methods and sensibilities than managing a closed system. Service managers must deal with nonroutine processes when direct control is not an option. The human element is essential to successful operations in the service sector. As with direct selling, the inevitable relationship between a service provider and a customer presents a significant opportunity. However, since it is seldom possible to totally manage this connection, service quality may suffer. The disposition and look of employees in service organisations are crucial factors because of this. The customer's participation in a service's process enables value to be jointly created. The service manager employs a managerial style that, in many ways, combines the roles of marketing and operations.

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CHAPTER 4

RECOGNIZING THE SERVICES INDUSTRY'S COMPETITIVE ENVIRONMENT

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ABSTRACT:

The services sector is characterised by a variety of elements that affect its performance and expansion within a dynamic and competitive environment. This abstract emphasises how critical it is to comprehend and be aware of the competitive environment in which the services business works. Both local and foreign businesses compete with the services sector. The introduction of international service providers into local markets has been enabled by globalisation and technology improvements, escalating competition. Domestic service providers must differentiate themselves in this cutthroat market by focusing on quality, innovation, efficiency, and the needs of the consumer. Furthermore, the quantity and calibre of people and skills have an impact on the competitive climate in the services sector. Service firms benefit greatly from having highly competent and experienced workers since they can give superior services and acquire a competitive advantage. The competitiveness of a service provider may be increased through funding personnel training and development, talent acquisition plans, and initiatives to promote an innovative and collaborative culture.

KEYWORDS:

Business, Market, Network, Strategic, Technology.

INTRODUCTION

Information technology is now converting our industrial economy into a service economy, much as machine technology previously transformed an agrarian economy into an industrial one. Information gathering, processing, and communication companies have emerged as a result of the accessibility of computers and international communication technology. With the ability to communicate instantly with everyone on the planet today, the global society is undergoing several changes. Think about the influence of the growing private satellite network market, which offers uplinks and downlinks for telecommunications in general, product launches, credit checks, billing, and financial transactions.

In order to receive and send massive amounts of data, Kmart was one of the first retail behemoths to set up a private satellite network utilising the new small-dish antenna VSAT installed on shop roofs. A satellite transponder leased from GTE Spacenet connects each Kmart's VSAT to the company's Troy, Michigan, data centre. Kmart has realised significant advantages from the communication network, including increased data transfer on the pace of sales, inventory status, product updates, and, most significantly, credit authoriza-tions for customers. The credit card issuers' risk of nonpayment may be greatly reduced by the instantaneous

availability of credit histories, which will decrease the discount rate that is returned to the shop. The cost of the satellite network will ultimately be covered by these savings alone [1]–[3].

A vision of where and why the enterprise is going must be the foundation of the service strategy. By answering inquiries on the target market, service idea, operating strategy, and delivery method, a strategic service vision is created. But there are obstacles to be overcome due to the competitive environment for services, including low entry barriers, product substitution, and a lack of opportunity for economies of scale.

In order to create strategies that enable a company to outperform rivals, three general tactics have been shown to be effective. To establish a competitive edge, service organisations have used a variety of tactics including market focus, differentiation, and total cost leadership. To build a loyal customer base, management must keep in mind that each of these tactics must be centred on the consumer and on meeting their wants.

An evaluation of a company's position in relation to its competitors and other players is advised before entering a market. Such an examination starts with the well-known five forces model to understand the industry's competitiveness. The following is a SWOT analysis to evaluate strengths, weaknesses, opportunities, and threats. Competing in the market on several fronts is necessary to win clients. Price, convenience, reputation, and safety are just a few of the factors that customers consider while making purchases. The competitive market and unique client preferences determine how important a given variable is to a company's success.

Also provided is a framework for understanding how information affects the service firm's competitive strategy. Four strategic roles of information are identified: establishing entry barriers, generating income, building data bases as assets, and enhancing productivity. These roles are based on the aspects of strategic emphasis both external and internal and competitive use of information both online and offline. Each function includes examples from the industry to show how businesses have successfully utilised information.

The understanding of the virtual value chain, which compiles data on client demands based on shifting demographics and lifestyles, is what drives innovation in service products. To create new service offers aimed at an already-existing customer base, this database may be mined. However, there are restrictions on how information may be used, such as concerns about data veracity, fairness, and privacy. The chapter ends with a framework that classifies service businesses based on how competitive they are in relation to important operational parameters.

Vision for Strategic Services

An entrepreneur's concept and an unmet demand serve as the foundation for the function and positioning of a service business in the market. An approach to creating a strategic service vision in the form of questions. Service delivery system, operational strategy, service idea, and target market groups are the key categories listed from left to right. To aid in the creation of each category, questions are provided inside it. A question is provided to evaluate how effectively each category has accomplished the strategic service vision as one travels between them. For instance, "Does the service delivery system complement the operational strategy?" discusses if the service delivery system is suitable for the proposed operational strategy. An internal service. When used in a global environment, further inquiries are required to take cultural factors into consideration. The strategic service vision presented here may be developed to include the

international components that are required. Service companies compete in a challenging economic climate for a variety of reasons, including:

1. In general, low entry barriers. The majority of the time, services don't need a lot of cash, and their inventions are not patentable. As a result, rivals may quickly copy ideas. Other kinds of access obstacles do occur, too, such building a resort hotel on an island's top beach.
2. Very little chances for economies of scale. The market region is constrained by the need for actual travel for many services, which leads to small-scale stores. Franchised businesses may achieve certain economies of scale by splitting the cost of buying or advertising; in other cases, utilising the Internet can replace actual travel.
3. Unpredictable changes in sales. Service demand fluctuates according on the day of the week and the time of day, with sporadic arrivals. Can you come up with any examples?
4. There is no scale advantage when working with customers or suppliers. Many service companies are at a disadvantage in negotiations with strong customers or suppliers due to their modest size. However, there are a lot of exceptions that may be made, such when McDonald's buys meat or when Marriott buys beds.
5. Product swapping. Innovations in products may take the place of services. Therefore, service businesses must not only keep an eye on their rival service providers but also foresee prospective product breakthroughs that might render their services obsolete.
6. Client fidelity. A loyal client base is built by established businesses that provide personalised service, and it acts as a barrier to entry for new services. For instance, a medical supply company may install its own ordering computer terminals at clients' locations. The placing of new orders is subsequently made more easier by these terminals, essentially excluding rivals.
7. Barriers at exits. Low or nonexistent profitability may not stop marginal service companies from operating. For instance, a privately owned company could prioritise hiring family members above maximising profits. Other service businesses, like scuba diving or antique shops, have a pastime or romantic draw that gives its owners enough work pleasure to make up for poor pay. Therefore, it would be difficult for profit-driven rivals to eliminate these privately owned companies from the market.

There are businesses that have successfully navigated the challenges of the competitive market in any given service sector. By overcoming many of the challenges mentioned here, McDonald's, for instance, has come to dominate the fast-food sector. However, new entrants must create a service strategy that takes into account the key competitive aspects of their individual businesses. Our next subject will be examples of how service organisations have adopted three general methods that have proven effective at giving them a competitive edge. Three general competitive strategies, according to Michael Porter, exist: overall cost leadership, differentiation, and focus3. Each approach will be discussed in turn, with instances of how service companies have used it to beat their rivals.

DISCUSSION

The business environment in which the services sector works is undergoing fast change. The competitive environment is always changing as a result of technological innovations and shifting consumer preferences. Service providers must embrace digital transformation to be competitive, as well as keep up with new trends and technology. The growth of platform-based business

models and the sharing economy have also increased competition and added new competitors to the services sector. The regulatory environment and governmental regulations have a big impact on how the services business competes. Market dynamics, entrance hurdles, and levels of competition may be shaped by regulatory restrictions or facilitation measures. For service providers to succeed in their particular marketplaces, it is crucial that they comprehend, adhere to, and promote rules that promote fair competition. Additionally, the expectations and desires of the client are crucial in determining the competitive landscape. Customers of today want smooth, convenient, and personalised service. Service providers must continually innovate and adapt to satisfy these changing consumer needs, set themselves apart from rivals, and cultivate long-lasting client connections. Market research and client feedback are key resources for understanding customer demands and being competitive [4]–[6].

Cost Leadership Overall

Effective scale facilities, strict cost and overhead management, and often novel technologies are all required for an overall cost leadership approach. A low-cost position offers protection against competition since less effective rivals will be the first to feel the strain of the market. A substantial capital investment in cutting-edge equipment, aggressive pricing, and start-up losses to increase market share are often needed to implement a low-cost approach. The success of McDonald's, Walmart, and Federal Express provide as examples of how a cost leadership approach may sometimes revolutionise a sector. Additionally, service companies have used a number of strategies to attain low-cost leadership.

Looking for Cheap Customers

The service provider might focus on those clients who are less expensive to serve than others. Because it solely ensures military personnel and their families, United Services Automobile Association, for instance, has a leading position among vehicle insurers. The somewhat mobile nature of this group's members means that they are used to and willing to do business over the phone, over the mail, or online, which also includes lesser costs. As a result, USAA is able to do away with the requirement for the sizable sales team that typical insurers use. Low-cost businesses like Sam's Wholesale Club and Costco, which cater to clients ready to make large purchases, do without frills, and serve themselves, are another example of this technique in action.

Creating Consistency in a Custom Service

Tax preparation is often regarded as a specialised service. However, H & R Block has been successful in providing countrywide customer service when simply basic tax preparation is needed. Additionally, family health centres and law firms with storefront offices are appealing options for providing standard professional services at reasonable prices. Routine is the operative word here. However, there is always a risk when substituting products.

Taking Personality Out of Service Delivery

Customers may tolerate the potentially risky tactic of lessening the human touch in service delivery if it leads to greater convenience. For instance, easy access to ATMs has helped clients transition away from face-to-face interactions with live bankers, which has cut transaction costs for banks.

Bringing Down Network Costs

Service businesses that depend on a network to connect suppliers and clients have unusual start-up expenses. The most prominent example is provided by electric utilities, which have significant fixed expenditures in transmission lines. By using a hub-and-spoke network, Federal Express came up with a novel way to lower network expenses. The overnight air-package carrier was able to service the United States despite the lack of direct routes by establishing a hub in Memphis and using cutting-edge sorting equipment. Instead of creating routes between all the cities covered, Federal Express simply has to add one extra route to and from the hub whenever a new city is added to the network. Operators of passenger airlines have not overlooked the effectiveness of the hub-and-spoke network model either [7]–[9].

Turning off Service Operations

Many services, including getting a haircut and getting a ride, are intrinsically "online" since they can only be completed in person. For services where the customer is not required to be present, the service transaction can be "decoupled," with some content performed "offline." For instance, a shoe repair service could set up scattered kiosks for customer pickup/drop-off, consolidating orders for delivery to an off-site repair factory, which even could be located offshore. Because of economies of scale from consolidation, low-cost facility placement, and the absence of the client in the system, providing services offline often results in considerable cost reductions. In essence, the requested service is managed like a factory.

Differentiation

Making a service that is seen as distinctive is the core of the differentiation approach. Differentiation strategies may take many various forms, including brand image, technology, features, customer service, dealer network, and other aspects. While a differentiation approach does not overlook expenses, it places client loyalty as its main goal. As this example shows, differentiation to improve the service is often accomplished at a price that the intended consumer is willing to pay.

Creating Concrete, The Intangible

Services are often ethereal by nature, leaving the buyer with no physical memorabilia of the transaction. Many hotels now provide free toiletry products with the hotel name prominently attached after realising the necessity to remind guests of their stay. Industrial power plants are insured by The Hartford Steam Boiler Inspection and Insurance Company, although this firm has improved its service to include routine inspections and suggestions to management for averting future issues.

Personalizing the Basic Product

Adding a personalised touch might help a business win over clients for very little money. The ability to greet a visitor by name and create a positive first impression might result in recurring business. To set themselves apart from barbershops, hair salons have expanded their personalization options. Burger King is attempting to set itself apart from McDonald's traditional make-to-stock method of providing quick food by promoting a made-to-order philosophy.

Bringing Down Perceived Risk

Many clients feel like they are taking a risk when they acquire a service because they lack knowledge. Customers will seek out service providers that take the additional time to explain the job to be done, display a clean and organised facility, and guarantee their work because they lack information or trust concerning services like vehicle repair. Customers often see the additional cost as being worth it for the "peace of mind" that is created as this trusting connection develops [10].

Paying Attention to Staff Development

A competitive advantage that is hard to imitate is investing in employee growth and training that improves service quality. Competitors respect companies who are leaders in their fields for the quality of their training initiatives. These businesses have occasionally built training facilities that resemble colleges.

Managing Quality

It is quite difficult to provide consistent service quality across several locations when using a labor-intensive system. Numerous strategies have been used by businesses to address this issue, including direct supervision, peer pressure, technology, clear protocols, scope restrictions, and people training. For instance, the Magic Pan restaurant chain created a fault-tolerant machine to make its renowned crêpes in order to guarantee consistency. The possibility of a discrepancy between client expectations and experiences complicates the issue of service quality even more. Thus, influencing consumer quality expectations becomes a problem that is investigated.

Focus

The focus approach is based on the notion of providing excellent customer service to a specified target market by attending to their unique demands. The market segment might be a specific customer base, product, or geographical area. The focus approach is based on the idea that the company can better serve its specific target market than other companies seeking to service a larger market. By addressing particular client wants and/or lowering costs via specialisation, the company has a competitive edge in its market niche. Therefore, rather of targeting the whole market, the focus approach is the application of differentiation and/or overall cost leadership to a specific market sector.

Davidow and Uttal contend that a successful focus approach depends on careful client selection. They describe how one bank in Palo Alto, California, preys on the rich while discouraging others with practises such as cancelling an account after two returned checks. The three-step focus strategy proposed by Davidow and Uttal comprises segmenting the market to develop core services, categorising clients based on the importance they put on customer service, and lowering expectations somewhat relative to perceived performance.

Strategic Assessment

Should we join a sector with a new service offering, for example, is a declared goal that serves as the starting point for strategic research. Porter's five forces analysis of the target industry structure and a SWOT analysis to evaluate the organization's strengths, weaknesses, opportunities, and threats in a market are two common planning techniques.

Five Forces Analysis by Porter

At the industry level, the five forces model is used to assess the competitive intensity and, therefore, the allure of a market. The five factors have an impact on a company's capacity to attract clients and turn a profit. A representation of the five forces together with suggested considerations for each scenario. As an example of a company entering the video rental market, think of Netflix. The focal point of our discussion is the structure upon which external forces play.

- **Competition among industries:** This element often plays a key role in determining how competitive an industry is. Competitors may be ruthless price cutters or they may use non-price tactics like innovation, branding, or higher quality. An significant determinant of whether a new entrant will succeed in finding clients is the industry's capacity in relation to overall customer demand. Southwest Airlines made an exception, entering the Texas market with low-cost prices and frequent departures to satisfy the latent need of business commuters who typically used the automobile. Only rental companies like Blockbuster were Netflix's competitors when it first entered the market and started sending out DVDs exclusively.

1. **Prospective New Participants:** High-return markets that are profitable attract new competitors. For instance, Walmart once competed against Netflix, but it eventually withdrew since it was unable to overtake Netflix's well-known brand.
2. **The Potential for Substitutes:** Substitutes for services often take the shape of a product. For instance, tax accountant services may be replaced by software like TurboTax. Cable providers that let users download films directly to their televisions via Tivoli pose a threat to Netflix.
3. **Supplier Bargaining Power:** Because of the uniqueness of the product or exclusive source, input suppliers may have influence over the company. The DVD distributors are Netflix's most significant suppliers, yet due to its large number of orders, Netflix has a lot of clout.
4. **Customer Bargaining Power:** Customers of Netflix may be able to impose pricing pressure and so limit large profits. The usage of Priceline.com and Hotwire.com in the travel business has changed the information asymmetry in favour of the customer. However, Netflix leverages data from consumer purchases to suggest further films with related subjects, therefore increasing demand.
- 5.

CONCLUSION

In conclusion, for service providers to succeed in the current business climate, they must recognise and comprehend the competitive environment in which the services sector works. The competitive dynamics are influenced by a variety of elements, including local and international competition, technology disruptions, regulatory frameworks, consumer preferences, and talent availability. Service providers may position themselves strategically, distinguish their offers, and develop long-lasting competitive advantages by continually monitoring and adjusting to these elements.

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CHAPTER 5

ANALYSIS OF SWOT (STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS)

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ABSTRACT:

The SWOT analysis framework is a popular method for evaluating an organization's or project's internal strengths and weaknesses as well as external possibilities and threats. An outline of the importance and advantages of doing a SWOT analysis is given in this abstract. SWOT analysis aids businesses in identifying and capitalising on their advantages. Organisations may discover their strong points and learn how to use them by looking at internal elements including resources, talents, and competitive advantages. Organisations may improve their performance, capitalise on their distinctive features, and gain a competitive advantage by using this self-assessment. SWOT analysis aids businesses in identifying their weak points. Organisations may identify possibilities for development by critically assessing internal factors including operational inefficiencies, resource constraints, or talent shortfalls. Organisations may create plans to overcome deficiencies, spend resources wisely, and improve overall performance and competitiveness by identifying these vulnerabilities. Finally, a SWOT analysis promotes a methodical and comprehensive approach to evaluating the organisation. Due to the fact that different viewpoints are taken into account throughout the analysis, it promotes cooperation among stakeholders. Organisations may get a more thorough awareness of their internal and external issues, resulting in better informed decision-making and successful strategic planning, by incorporating important employees from various departments or levels.

KEYWORDS:

Business, Market, Network, Strategic, Technology.

INTRODUCTION

An organization's internal strengths and weaknesses, as well as external threats and opportunities, are all identified via a SWOT analysis. The analysis's objectives are to identify competitive advantages, evaluate potential outcomes, anticipate issues, and enable the creation of backup plans. A SWOT analysis starts with a clear aim and ends with a summary of the strengths to be kept, expanded upon, or leveraged; weaknesses to be fixed; chances to be prioritised, seize, or developed upon; and threats to be mitigated, managed, or opposed. Given that a SWOT analysis is subjective and that two people often come up with different final versions, teamwork is important. A sample of common inquiries that may be made in each of a SWOT analysis's four quadrants [1]–[3].

Gaining Clientele in The Market

Customers choose a service provider based on the factors given below, taking into consideration the competition and their own demands. This list is not meant to be comprehensive since a

company's mere effort to implement a differentiation strategy is represented by the inclusion of a new dimension. For instance, American Airlines launched the frequent flyer programme "AAdvantage" in an effort to make customer loyalty a factor in the rivalry between airlines.

1. **Availability:** How easily is the service accessed? Some financial services are now available 24 hours a day because of banks' usage of ATMs. Service providers may provide 24/7 access to information and personal accounts by using 800-numbers and websites.
2. **Convenience:** Convenience for clients who must travel to a service is determined by its location. For example, in order to be successful, petrol stations, fast-food joints and dry cleaners must choose sites on busy streets.
3. **Dependability:** How trustworthy is the service? How quickly do the bugs return, for instance, after the exterminator leaves? The inability to solve the issue on the first visit is a common criticism of vehicle repair services. The FAA compiles data on on-time performance for airlines.
4. **Personalization:** Are you given personalised attention? For instance, hotels have found that greeting returning guests by name gets their attention. Even a little amount of modification made possible by the service might be seen as more individualised service.
5. **Price:** Because it is sometimes difficult to evaluate the prices of services objectively, price competition is less successful in the service sector than it is in the product sector. It may be simple to compare prices while providing ordinary services like an oil change, but in the case of professional services, price competition may be seen counterproductive since it is sometimes thought of as a substitute for quality.
6. **Quality:** The link between a customer's previous expectations of the service and his or her assessment of the service experience both during and after the fact determines the quality of the service. In contrast to product quality, service quality is assessed by both the method used to offer the service and its results. Before making a choice, asking others about their experiences might help reduce the uncertainty that is involved with choosing a service provider. Poor customer service cannot be traded out for a better one as a product can. The most efficient type of advertising is good word of mouth.
7. **Safety:** Because many services, like air travel and medication, require consumers to entrust the supplier with their lives, wellbeing and security are crucial factors.
8. **Speed:** How long will it take to provide service? Response time is a key performance indicator for emergency services like fire and police protection. In certain other services, it may be acceptable to wait in exchange for more individualised care or lower prices.

When discussing manufacturing strategy, Terry Hill referred to the competitive factors that drive sales as "order-winning criteria."⁶ In addition, he stated that certain requirements may be referred to as qualifiers since a product must have them in order to be sold. Hill concluded by stating that certain qualifiers may be regarded as order-losing sensitive. We will discuss the service purchasing choice using a similar reasoning and the previously specified service criteria. The qualifying of possible service companies is the first step in the purchase decision process. From this subset of service firms, a final choice is then made utilising a service winner. A return will depend on whether a "service loser" has happened after the original service experience.

DISCUSSION

A SWOT analysis also reveals outside possibilities. It assists businesses in searching the environment for new trends, market changes, and expansion prospects. Organisations may improve their market share, create new goods or services, enter new markets, or form strategic alliances by recognising and seizing these chances, which will result in long-term growth and higher profitability. A SWOT analysis also identifies possible dangers. It helps organisations to evaluate external variables like market rivalry, shifting customer preferences, changing regulatory requirements, or uncertain economic conditions that might endanger their operations.

Qualifiers

A service business must reach a certain level for each service-competitive dimension, as determined by the other market participants, before being considered seriously as a competitor in the market. For instance, safety, as determined by the airworthiness of the aircraft and the rating of the pilots, would be a clear qualification in the context of airline operations. A standard of quality, such as cleanliness, that new entrants to a mature business-like fast food may be required to at least meet in order to be competitive. For fast food, a feature that was originally a service winner, like a drive-through window, might eventually turn into a qualification since certain consumers won't stop otherwise.

Service Awards

Service winners are criteria that customers use to choose between rivals, such as price, convenience, or reputation. The service winner may change depending on the demands of the consumer at the time of the transaction. For instance, choosing a restaurant for lunch can be motivated by convenience, whereas choosing one for a dinner date might be motivated by reputation. A service winner may later qualify for an industry award.

Losers in Service

If you don't produce at the desired level for a competitive dimension, you risk losing a disgruntled client for good. Dependability, personalisation, and speed are especially prone to become service losers for a variety of reasons. Examples include an auto dealer's inability to fix a technical issue, a doctor's impolite behaviour, or an overnight delivery service's failure to deliver a cargo on schedule.

Information's Competitive Position in the Services Sector

Information technology is assisting in the formulation of successful companies' service management competitive strategies. the many ways in which information technology might aid in the competitive strategy of a service organisation. We'll go through each of these responsibilities individually with examples from productive applications.

Putting up Roadblocks to Entry

Numerous services are offered in markets with minimal entry barriers, as was already mentioned. However, James L. Heskett contends that barriers to entry can be raised through economies of scale, market share building, switching cost creation, investment in communications networks, and the strategic use of databases and information technologies.⁸ We will discuss three ways that

information can be used to raise barriers to entry: reservations systems, frequent flyer or similar programmes to increase customer loyalty, and customer relationship building to raise sales.

Systematic Reserving

By investing in online reservation systems that are offered to sales intermediaries like travel agencies, a barrier to entry may be erected. The SABRE System from American Airlines is an example of the type of unobtrusive barrier to entrance that is produced by a complete information system. Most smaller airlines utilise these existing systems for a charge, but United and Delta reproduced this bookings system at tremendous expense. In late 1982, it became clear how important online reservation systems were to the competitive landscape. The Civil Aeronautics Board and the U.S. A joint investigation into potential antitrust breaches by airline reservation systems was launched by the Department of Justice. Frontier Airlines brought allegations against United in this probe, alleging that it had unjustly restricted competition in the use of its Apollo computerised bookings system.

Regular Client Club

Given its extensive bookings system, adding passenger accounts to collect travel credit for frequent flyer rewards was a modest step for American Airlines. Travellers, especially business travellers who aren't paying for their own expenses, develop a strong brand loyalty as a result of these programmes, which provide free journeys and a number of ancillary perks. People Express discovered that these customers do not find any interest in a new competitor's discounted rates. It's one of the most anticompetitive programmes ever put in place, according to a travel adviser, who was cited as saying.

When he led the CAB in the late 1970s, the father of deregulation Alfred Kahn failed to predict how airlines would develop reservation systems and frequent flyer programmes to suppress competition. According to a comment from him, "Nobody recognised all the ways in which a carrier could insulate itself from competition."

Changing Fees

The cost of building a client base is the inconvenience it would cause the consumer to transfer providers. Consider the inconvenience of switching banks after you have set up automatic bill payment from your checking account. In the medical supply sector, information technology in the form of online computer terminals has been employed to connect hospitals directly to the distribution networks of the suppliers. The internet terminals from American Hospital Supply and the drug distributor McKesson have been put in hospitals so that supplies and medications may be ordered as needed. Due to the hospital's ability to save inventory-carrying expenses and the ease of online ordering for replenishments, significant switching costs are built into this arrangement. Because it is difficult for a rival to lure away a client who has already been coopted into its system, the supplier benefits from a decrease in selling expenses [4]–[6].

Income Generation

Internal operations-focused real-time information technology may contribute competitively to expanding revenue potential. The best way to understand yield management is as a revenue-maximizing tactic to fully utilise service capacity. Innovative point-of-sale systems have been

made possible by microcomputer advancements, and better customer service is made possible by the usage of expert systems that are accessible via mobile laptop computers.

Yield Control

American Airlines was the first to see the possibilities of what is now known as yield management via the usage of its SABRE bookings system. American decides on price and seat distribution for unfilled tickets by continuously monitoring the status of both its forthcoming flights and rivals' flights on the same route. In order to guarantee that remaining vacant seats have a possibility of being filled, but not at the cost of a full-fare ticket, the number of Supersaver prices assigned to a certain trip may be changed. By preventing any seat from becoming vacant due to a lack of a bargain-hunting customer and keeping some seats available for late comers who are prepared to pay the full cost, this real-time pricing method maximises the income for each flight.

The use of knowledge to increase the income produced by a time-perishable resource is hence yield management. Other service sectors have taken note of American's success with yield management; for instance, Marriott Hotels has implemented a national yield management system to boost occupancy rates. Additionally, American Airlines is profiting from its invention by supplying noncompetitive businesses with the yield management software, including the French state railway.

Selling Point

Walmart has found a brand-new gadget for bargain hunters: the VideOcart. Information about the department in front of the customer flashes on the connected video screen as they push the VideOcart through the store. The cart lists hundreds of goods by department and then displays a map of the shop, making it easier for consumers to discover things in the store. In testing at supermarkets, the firm that makes the cart says that it improved sales by \$1 every visit.¹⁴ Another example is the adoption of the palm-sized microcomputer transmitter. With this tool, a waiter at a restaurant may simultaneously send the bill to the cashier and an order to the kitchen monitor. This eliminates extra stages and gives suggestive selling more time.

Master Systems

To expedite repairs in the field, Otis Elevator Company equips its maintenance crew with a professional system and laptop computers. It has built a knowledge base that is used by the expert system by gathering data on the behaviour of its lifts over time. A field service technician may access the system and get diagnostic assistance to find the cause of a problem using a laptop computer. As a consequence, lifts are swiftly returned to operation and fewer maintenance personnel are required. Expert systems have been used in the medical industry in some of its early applications; theoretically, doctors may pay to use these systems. Another example is how oil Rental automobile personnel speed up the automobile drop-off procedure so that customers can avoid missing flights.

Comstock/PunchStock: For a big oil business, an exploration expert system was able to pinpoint potential drilling locations.

Database Resource: A service company's database may be a secret asset with strategic value. Large databases are expensive to build and maintain, which in and of itself prevents rivals from

entering the market. However, what's more significant is that the information may be mined for profiles of customer purchasing patterns, and these give chances for creating new services.

The sale of information: By charging for access to its database of company credit information, Dun & Bradstreet established a business. Home in America Shield, a company that offers service contracts for specific heating, plumbing, and electrical systems in homes, also realised that its database, built over many years of repair experience, was a valuable asset. Manufacturers are now welcome to access this database to assess the performance patterns of their products. American Express has thorough knowledge of its cardholders' purchasing patterns and now provides breakdowns of those trends to its retail clients [7]–[9].

Establishing Services

Club Med, an international chain of all-inclusive resorts, has developed throughout time to keep up with the changing needs of its clientele. After looking through the database of member characteristics, Club Med discovered that many of its once hip singles members had now married and had children. Club Med made modifications to several of its venues to suit families with small children in order to continue recording holiday trips in the future. Parents may now take use of the surrounding children's park while their kids are being watched by Club Med counsellors while they enjoy the beach and water sports. Club Med has expanded its holiday options to include cruise ships in an effort to attract older members who are no longer interested in water activities. This example shows how service businesses who collect client information at the time of the first transaction have the chance to provide new or updated services for subsequent purchases as well as develop a lifelong connection.

Micromarketing

We now have a service plan that is very targeted and can even target individual clients. A multitude of consumer purchasing data is produced through bar coding and checkout scanning technologies, which may be utilised to precisely target consumers. Analysis of this information enables marketers to target their product distribution and promotion. Borden Inc. has chosen which supermarkets to promote its premium pasta sauce in order to boost sales. After tailoring its flavours to the preferences of a certain store's patrons, Kraft USA reported a rise in cream cheese sales. American Express, which meticulously analyses data on its clients and their shifting purchasing habits, can even predict when they get married.

Productivity Boosting

Our capacity to handle multisite service operations has expanded as a result of new breakthroughs in data collecting and analysis. Retail inventory may be controlled on a daily basis by handheld computers to better use shelf space by matching displayed items with sales. The most effective producers may be found using data on multisite units' operations, and productivity is increased systemwide when the sources of these achievements are made available to other sites. Then, the structure for a learning organisation is built.

Inventory Level

Sales reps at Frito-Lay have stopped using paper forms in favour of a mobile computer. The corporation utilises this data to manage inventory levels, pricing, product promotions, and stale or returned goods. Each day, they transfer the data they gathered on their travels through the

Internet to the Plano, Texas, headquarters. These daily sales, production, and distribution updates ensure that new items are constantly flowing through the system to satisfy customer demand. The success of Frito-Lay depends on having the appropriate product in the right location and in the right quantity for a perishable commodity like potato chips. According to a spokeswoman, the corporation saved more than \$40 million in its first year due to route simplification, less paperwork, and decreased losses from stale merchandise [10].

Data Envelope Modelling

It has since found use in for-profit service organisations. For a multisite organisation, DEA compares each service delivery unit with every other service unit and computes an efficiency rating based on the ratio of resource inputs to outputs. When evaluating a unit's efficiency, many inputs and outputs are both feasible and preferred. Using this data, the linear programming model calculates the efficiency frontier based on the small number of units that can produce at 100% efficiency. By contrasting the operational procedures used by efficient units with those used by less efficient units, areas for improvement may be found. Sharing management strategies of more productive units with less productive units offers a chance for the latter to develop and raise the productivity of the whole system. A competitive strategy of cost leadership may be fueled by the frequent use of DEA to create an environment of organisational learning. 33 of a chain of 60 fast-food restaurants that Banker and Morey examined using DEA turned out to be efficient¹⁸. Three outputs and six inputs were employed in their research. It's noteworthy to observe that the inputs contained both variable types that could be controlled and those that couldn't. As an addition to Process Improvement, the subject of data envelopment analysis is discussed in more depth.

CONCLUSION

Organisations might create backup plans, diversify their product offerings, or use proactive measures to manage risks and preserve their market position by anticipating and recognising these dangers. A SWOT analysis also offers a thorough perspective that makes it easier to make strategic decisions. Organisations may create practical plans and prioritise activities by incorporating the information received from assessing strengths, weaknesses, opportunities, and threats. Organisations may improve overall performance and long-term success by aligning their resources, competencies, and objectives with these analyses. Finally, a SWOT analysis gives businesses a methodical framework for evaluating both their internal strengths and weaknesses as well as external possibilities and threats. By using their strengths, managing their shortcomings, capitalising on opportunities, and reducing dangers, organisations may make educated choices. Organisations may improve their competitive edge, adjust to changing conditions, and accomplish their strategic goals by doing a SWOT analysis.

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CHAPTER 6

EVALUATION OF DIGITAL VALUE CHAIN

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ABSTRACT:

The sequence of actions and procedures involved in developing, distributing, and collecting value using digital technologies and platforms is referred to as the "digital value chain." This abstract focuses on the analysis of the digital value chain and its importance in the current environment of a digitally driven economy. Analysing the digital value chain enables businesses to evaluate the productivity and efficacy of their digital activities. Organisations may find bottlenecks, inefficiencies, and places for development by examining each step of the value chain, including content generation, distribution, marketing, sales, and customer support. This assessment contributes to the process optimisation, operational simplification, and performance enhancement, resulting in cost savings and enhanced customer experiences. By analysing the digital value chain, businesses may spot areas where innovation and digital transformation are possible. Organisations can spot emerging trends, disruptive innovations, and new business models by understanding the value-adding processes and technologies that make up the chain. Organisations may take advantage of market possibilities, keep one step ahead of the competition, and promote innovation in their sector with the aid of this review. Additionally, by analysing the digital value chain, organisations may better match their digital strategy with their corporate goals. Organisations may make sure that their digital activities are in line with their strategic objectives by analysing how each action adds to the process of value generation overall. This assessment helps businesses in setting priorities for investments, efficiently allocating resources, and selecting projects for digital transformation.

KEYWORDS:

Business, Market, Network, Strategic, Technology.

INTRODUCTION

Today, companies compete in two worlds: a physical world of people and goods known as a marketplace and an informational virtual world known as a marketspace. For instance, Barnes & Noble acquired a presence in the online marketspace created by the Internet after launching a website, but it also maintained its competitive position as the top book shop in the industry. Due to the nature of the marketspace, which necessitates customer information for order fulfilment, the service provider is also able to gather relevant data, such as consumer purchasing patterns and addresses. The marketspace data may also be utilised to enhance service delivery and provide value for customers.

Value creation has traditionally been seen as a series of interconnected steps that make up a value chain. The top of the typical physical value chain, which consists of a series of steps starting with manufacture and ending with sales to a consumer. Traditional thinking has seen the virtual value

chain, which is shown at the bottom as information supporting physical value-adding components rather than as a source of value in and of itself. Managers, for instance, monitor the process using data on inventory levels, but they seldom ever utilise the data itself to provide the client with fresh value. For firms that provide ground-breaking services, this is no longer true. FedEx currently uses its information database, for instance, by enabling clients to monitor parcels online via the business' website. By inputting the airbill number, consumers can now track down a shipment in transit and see who signed for it when it was delivered. Convenient shipment monitoring increased consumer value and at first set FedEx apart from its rivals.

Managers must turn to the market to generate value using knowledge. Although the marketplace's value chain might resemble the marketplace's, the value-adding process must first acquire raw data before it is processed and delivered. The value-adding processes are virtual since they are carried out through and in conjunction with information. In every level of a virtual value chain, adding value requires a series of five tasks: information collecting, organisation, selection, synthesis, and distribution. By taking advantage of the virtual value chain, The United Services Automobile Association, which offers financial services to military people and their families, has elevated itself to the level of a major competitor. In a three-stage transition, USAA went from the marketplace to the marketplace.

Initial Phase

The first step is using knowledge to more clearly see the physical processes. When USAA switched from a manual paper-based file system to one based on a central computerised database, it became a "paperless operation," allowing access through desktop computers.

Third Stage

Physical activities are replaced with virtual equivalents in the second stage. Information systems were built at USAA to automate the company's basic insurance sales and underwriting operations. In the process, USAA gathered a lot of data on its customers who are also association members. Unlike a traditional insurance provider, USAA does not use a travelling sales team and conducts all of its business over the phone, by mail, or online. Every person who has interaction with members has received training on how to assess their requirements and provide the best possible goods and services. As a result, USAA has been able to compile a database on its members, many of whom are used to doing business with minimal direct human contact [1]–[3].

Fourth Stage

The last step involves analysing member data to identify new product demands and value-delivery strategies. As the information grew, USAA created member risk profiles and tailored insurance plans. In response to its members' ageing and the information flow collected along the virtual value chain, USAA established products like property and casualty insurance, banking services, life and health insurance, mutual funds, and retirement communities that are tailored to members' changing needs. The "event-oriented service" anticipates the demands of certain members, such as a youngster who will need motor insurance when they become older. Members may now use the USAA website to manage their financial portfolio.

Third Stage

Opportunities for client participation in the co-creation of value are investigated in the last step. Financial preparation is necessary for USAA retirees and current service personnel. In response, USAA developed online tools for planning investments and regularly scheduled interactive lectures on current financial topics.

Information Use Restrictions

Only the advantages of exploiting information as a competitive tactic have been discussed up to this point. However, several of these tactics raise concerns about fairness, privacy invasion, and anticompetitiveness. Additionally, if these tactics were utilised improperly, it may hurt customers.

Anticompetitive

The use of frequent user programmes and reservation systems to erect entrance barriers has been deemed potentially anticompetitive. For instance, how should a free trip award from a frequent flyer be taken into account, especially when the passenger has been travelling for work at the cost of the company? Corporations think that the complimentary tickets belong to the firm, and the IRS is contemplating taxing the free trip as revenue in kind. However, the long-term effect is the elimination of price competition in air travel.

Fairness

Asking aircraft passengers about the cost of their tickets may be the simplest way to ignite a riot. Price is a shifting objective and the ticketing process is a lottery since yield management allows ticket prices to fluctuate hourly. Is yield management, at its most extreme, fair and equitable to the general public, or has the cost of every service always been negotiable? Are consumers only starting to understand the power of their purchases?

Breach of Privacy

Because of the apparent violation of privacy, micromarketing has the ability to provoke the strongest reaction from customers. A extremely manipulative sales strategy, such targeting customers of a rival soft drink with offers to switch to an alternative, might happen when hungry producers have access to a record of every purchase you make at your neighbourhood grocery. When Lotus Development Corporation announced that anybody with a PC and modem could access its MarketPlace home data repository, consumers expressed their annoyance. Angry people who wanted to be deleted from this database sent Lotus more than 30,000 requests. Lotus later retracted the offer of public availability, although it still charges big businesses for access to the database.

Data Protection

Government organisations like the IRS face a serious issue when information is given to third parties for improper purposes, but it is much more frequent—and harmful—when personal medical data are given to insurance companies or prospective employers without the patient's agreement. Some companies provide records on individuals who have filed lawsuits for medical malpractice or worker compensation, and these databases may be used to exclude potential clients or patients.

Reliability

Are the statistics true? Data that is maintained on people may become corrupted and ruin people's life. For instance, a recent rule makes credit-reporting companies enable people to check the correctness of their credit reports, which resolves such problems.

DISCUSSION

Service businesses have advanced in their use of information to focus on customers who merit special treatment due to large purchases while neglecting those who are simply casual users. In order to service clients according to how profitable they are to the business, the following prominent methods are employed. Customers are ranked according to how lucrative their companies are via coding. The support personnel is provided with a code for each account that contains instructions on how to handle each category.

1. Call centres utilise routing to assign clients to various lines depending on a customer's code. Big spenders are quickly transferred to advanced issue solvers. Some people may never even converse with a living person.
2. Targeting enables select clients to get hidden discounts and charge waivers depending on the worth of their company. Customers who are less valued could never even be aware of the deals.
3. A source of income is the sale of corporate data about your past transactions to other businesses. Your purchase potential has already been determined, so you may be positioned before you ever enter the store.

Competitiveness Stages of Service Firms

Continuous improvement in productivity and quality must be a cornerstone of a service company's strategy and corporate culture if it is to stay competitive. Chase and Hayes created the to explain the function of operations in the strategic growth of service businesses. This framework is also helpful as an example of the many sources for increasing productivity and quality. The framework also offers a technique to gauge and assess a company's advancement in the creation of its service delivery system. According to their competitiveness in service delivery, it divides service businesses into four phases of development, and at each stage, the management practises and attitudes of the company are compared across key operational aspects. It should be emphasised that services do not always begin at stage 1, but that, if neglected, they may do so at any point in their lifespan. For instance, one may claim that Federal Express started operations as a stage 3 rival due to its novel hub-and-spoke network model, whereby all sorting is carried out at the single Memphis hub.

Ready to Provide Service

Some service providers in particular, government services fall into this category because they see operations as a necessary evil that should be carried out as cheaply as possible. Due to the fact that consumers often have no other options, there is minimal incentive to pursue quality improvements. Because of their insufficient skills and the possibility of subpar performance brought on by little investment in training, workers need close monitoring. Investment in new technology is postponed until it is required for survival with the publisher's approval. The Federal Aviation Administration's (FAA) long-overdue use of Doppler radar for air traffic

management). These businesses are fundamentally noncompetitive, and they will only remain in this state until they are confronted by rival businesses [4]–[6].

Journeyman

A service business may encounter competition after leading a sheltered life in stage 1 and be compelled to review its delivery method as a result. Operations managers must therefore embrace industry standards in order to compete well with new rivals and prevent a significant loss of market share. An aspiring airline that is just entering the market, for instance, may be tempted to utilise the same jet if all successful airlines used it. Due to the fact that every company in the sector has adopted the same practises and even shares a similar aesthetic, the contribution of operations in this hypothetical scenario becomes competitively neutral.

Businesses are often inventive in competing along other dimensions when they are not competing on operations efficiency. The worker is required to adhere to established protocols and not show any initiative when peculiar situations emerge. These companies have not yet acknowledged how operations may boost a company's competitiveness.

Attained Unique Competence

Companies at stage 3 are fortunate to have top managers who have an understanding of what adds value for the client and the function operations managers must play in providing the service. For instance, Jan Carlzon, CEO of Scandinavian Airlines, understood that increasing on-time departure performance was necessary to reclaim the business traveller market that had been lost to fierce competition. In order to do this, he had to play a leadership position that encouraged operational innovation, which in turn helped the delivery system.

Operations managers often lead the charge in implementing service guarantees, employee empowerment, and service-improving technology in their organisations. Employees in these organisations are often cross-trained and encouraged to act independently as required to accomplish operational objectives that are made explicit. Companies in this category use management tactics to realise the company goal and stand out from the competition.

Delivering World-Class Services

World-class businesses go beyond just satisfying client expectations, raising them to heights that are challenging for rivals to match. By actively listening to consumers, management encourages higher performance standards and spots new business opportunities. Exceptional service providers like Disney, Marriott, and American Airlines set the bar for excellence against which others are measured.

New technology is now regarded a competitive advantage that cannot be readily replicated rather than just a way to save expenses. For instance, COSMOS, a system that follows parcels from collection through delivery, was created by Federal Express. Customers may use the FedEx website and the Internet to find out the precise location of their items. This technique may also be used to direct a driver to pick up customers while they are on the road.

Employees are encouraged to connect with the company and its goal since working for a top-tier company is seen as something exceptional. For instance, a Disney garbage collector is seen as a "cast member" who aids guests in having a good day. A significant difficulty is maintaining excellent performance across the delivery chain. The essential measure of a world-class

competition, however, is the ability to replicate the service in various locations, particularly abroad.

Service Standards

The central market rejects conventional wisdom and well-known brands of goods. Heavy hitters in the food sector who were left out in the cold engaged in some friendly wagering after the opening of Central Market in January 1994. By the end of the summer, there was a good chance that Frito-Lay's snacks will be available at the shop, a speciality and fresh food super-market. Other bets predicted that within six months Coca-Cola and Budweiser trucks will arrive at the market's loading docks. All wagers are now void.

One reason Central Market has attracted the \$279.4 billion grocery industry's attention is because it avoids brand-name product lines. The market has made it a habit to break many of the criteria that the nation's 30,000 supermarkets adopt, and within a year has become a flagship of the 225 Texas shops controlled by parent business H.E.B. Food shops. Although the majority of supermarkets believe that consumers prefer one-stop shopping, Central Market has shown that food alone is a successful product.

The typical consumer at Central Market, which offers almost nothing but food, spends \$30 at the register, according to John Campbell, general manager of Central Market. According to the Washington, D.C.-based Food Marketing Institute, the national industry average, which also includes spending on general goods and health and beauty items, is \$18.11. According to Campbell, consumers who quickly stop in for a few necessities, like diapers or mascara, and then check out via the fast lanes for purchases of 10 or less items are to blame for the lower industry average. " Similar to how conventional shops appear distinct, so does Central Market. Customers must navigate serpentine portions rather than straight aisles due to the structure of the store. A culinary school is also located there. Its shelves are stocked with jams from all over the globe, several olive oils, and 250 different varieties of mustard.

90% of Central Market's 400 employees are full-time employees who get health insurance, paid vacation time, tuition reimbursements, and profit-sharing, in contrast to the nation's 3.2 million supermarket workers, at least half of whom are part-time workers. It's a costly staffing choice, but according to Campbell, it pays off by increasing employee passion and product knowledge—two elements he claims are essential to boosting customer happiness. Almost a third of Central Market's 60,000 square feet of sales area is taken up by its spacious produce section, which generates at least 20% of the store's sales. Up to 450 different types of fruits and vegetables are maintained in the area, which is kept at 65 degrees, at any one time.

Fresh fish is displayed in a 75-foot-long refrigerator, and more than 100 different kinds of meat, game, and fowl are available for purchase at the 68-foot-long meat counter. There are 600 different types of cheese available. Perishables occupy around two thirds of the store's total floor area. And every day, a van from a nearby food bank pulls up to collect the goods that didn't meet Central Market's freshness standards. Even though the market runs the danger of going out of business if too many of its meats and fruits aren't immediately sold, such goods offer better profit margins than dry foods. Because perishables are priced more to cover losses, refrigeration costs, and the extra labour costs brought on by product displays, their margins are bigger. The more sales you can shift to perishables, the better since the prices you can charge for Coke, Pepsi, or Tide are limited, according to Kevin Coupe, executive editor of the Stamford, Connecticut-based

trade publication *Progressive Grocer*. When H.E.B.'s market research revealed that consumers were becoming more interested in home cooking, nutrition, and better-tasting goods in the middle of the 1980s, the company started talking about the Central Market idea. According to company spokeswoman Kristy Ozmun, "With Central Market, we were trying to get ahead of what we see as a definite trend and one that we feel will only continue to grow [7]–[9]."

Before launching the service, we first examined the strategic service vision and provided feedback. The topic of the economics of petition in the service industry was next up for discussion. A rich environment for the aspiring entrepreneur is suggested by the fragmented structure of service sectors, which are home to many small- to medium-sized businesses. In this section, we'll go over several instances of unique service strategies using the three general competitive strategies of overall cost leadership, distinctiveness, and emphasis. Strategies that work in one sector may be used by businesses looking to gain a competitive edge in another service industry due to the idea transferability across service organisations.

The concepts of service winners, qualifiers, and losers as competitive criteria were next investigated. Next, we looked at various aspects of service competition. The construction of entry barriers, income generation, database assets, and productivity development are the four categories into which the strategic function of information in service plans is divided. For each category, examples of information-based competitive tactics were provided. The idea of a virtual value chain offers a perspective on service innovation that uses data amassed while providing for consumers to create value. Service managers should constantly be mindful of how the people they serve will perceive their activities, according to the discussion of the restrictions in the use of information [10].

CONCLUSION

Organisations may discover key performance indicators (KPIs) and measures for success by analysing the digital value chain. Organisations may monitor and analyse performance, spot trends, and make data-driven choices by establishing relevant metrics at each step of the value chain. Organisations may use this assessment to determine the effects of digital projects, pinpoint areas for development, and compare their performance to benchmarks set by the industry. Additionally, analysing the digital value chain enables businesses to comprehend the customer journey and enhance user experiences. Organisations may uncover pain spots, possibilities for customization, and places where technology might improve customer engagement by analysing customer touchpoints and interactions throughout the value chain. In order to boost customer happiness and loyalty, this assessment assists organisations in providing personalised, seamless, and integrated experiences across digital channels. For organisations to optimise operations, spur innovation, match digital plans with corporate goals, track performance, enhance customer experiences, and determine the financial effect of digital expenditures, the assessment of the digital value chain is crucial. Organisations can remain competitive in the digital market, adjust to shifting consumer expectations, and achieve sustainable development by routinely assessing and improving the digital value chain.

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CHAPTER 7

FUNDAMENTAL CHARACTERISTICS OF SERVICE INNOVATION

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ABSTRACT:

In today's changing corporate climate, service innovation is a crucial component of fostering development, competitiveness, and customer pleasure. The key traits that set service innovation apart from product innovation are examined in this abstract, and it is made clear how important they are for creating effective service offerings. Intangibility is a characteristic of service innovation. Services are immaterial and can't be grasped or handled way physical goods can. At the time of birth, they are felt and eaten. In order to create value via intangible components like client interactions, personalised attention, and emotional connections, organisations must concentrate on generating engaging and lasting experiences. This feature presents both unique problems and possibilities for service innovation. Service innovation often involves consumer co-creation. Customers actively participate in services, which are interactive by nature. Customers actively participate in the service experience rather than being treated as passive receivers. Customer participation in the design and delivery of services, awareness of their requirements and preferences, and value co-creation are all aspects of service innovation. Customer happiness, loyalty, and distinction are all facilitated through collaboration with the customer. Additionally, perishability is often a component of service innovation. Services cannot be stocked or saved for future use way tangible goods can. They provide problems and possibilities for service providers since they are perishable and time-sensitive. Effective capacity management, demand forecasting, and the creation of plans to optimise resource allocation and utilisation are all necessary for service innovation. The difficulties posed by service perishability may be lessened by using technology, such as online reservation systems or dynamic pricing algorithms.

KEYWORDS:

Capacity, Service, Strategy, System, Time.

INTRODUCTION

A creative process goes into creating a system for delivering services. To deliver a service with features that set it apart from the competitors, it starts with a service idea and strategy. Before making any choices, it is necessary to identify and evaluate the numerous options for reaching these goals. Designing a service system entails considering factors like location, facility layout and design for efficient customer and work flow, service provider processes and task descriptions, quality assurance mechanisms, the degree of customer engagement, equipment selection, and sufficient service capacity. The design process is never complete; as soon as the service is in use, the delivery system is modified as circumstances need.

The particular difficulties of developing new services, we start with a discussion of innovation and the research and development process. We take into account a model of the new service development process that stipulates that the service product must have aspects of technology, people, and systems. Four structural and four managerial components make up service design, each of which is connected to a subsequent text chapter. To maintain the development process customer-centric, a customer value equation is implemented. It is possible to influence the structure of the service process to take a strategic position in the market.

The service blueprint is a useful tool for providing a visual representation of the service delivery process. We distinguish between front-office and back-office processes via a line of visibility. Customer interaction takes place in the front-office section of the system, which is concerned with atmosphere and efficiency. The back office is kept secret from the client and often runs like a factory to maximise productivity. Four general viewpoints for service system design are offered, including the production-line approach, the customer as coproducer, customer interaction, and information empowerment, after a taxonomy for service process design. Each method promotes a distinct ideology, and each approach's characteristics will be looked at [1]–[3].

Service Innovation

Three categories of research and development have been established by the National Science Foundation: Basic research aims to expand our understanding of the underlying components of events and observable facts without applying it specifically to processes or end products. Only the government, academic, and nonprofit sectors are allowed to do this kind of study. Applied research is study done with the intention of learning something that will help solve a particular problem. This involves analysis for particular commercial goals.

Development is the methodical application of information aimed at creating a product, service, or process. This covers the creation of prototype types and procedures. However, it does not include manufacturing, standard product testing, or quality control. According to the definitions provided by the NSF, service innovation is a result of applied research and development initiatives that aim to accomplish any one or more of the following: Continue a planned search for fresh information, whether or whether it relates to a particular application. Use current knowledge to solve issues related to developing a new service or procedure, including work to determine viability. Use current knowledge to solve issues pertaining to enhancing a present service or process.

According to a study by the Organisation for Economic Cooperation and Development², the nonmanufacturing sector accounted for around 40% of all industry R&D in the United States in 2001. The percent share of overall company R&D expenditures for a few chosen nations. The high percentage for "industrialised" countries may be attributed in part to the rising outsourcing rate. For instance, pharmaceutical businesses use service companies to carry out testing for medication development, and the majority of manufacturing industries hire information service providers to build software.

Products and services have different underlying aspects of the innovation process. The specific difficulties for developing new services include: Capability to safeguard intellectual property: Imitation is made easier by service systems' openness, while patents are hard to come by. Incremental nature of innovation: Because consumers are involved in service systems,

innovation is more likely to be evolutionary than radical in order to be accepted. Level of integration required: System integration is necessary for service innovation since it depends on interactions between people, goods, and technology. The ability to create prototypes or carry out testing in a controlled environment: Services face the risk of failing or performing poorly after launch since they cannot be evaluated realistically in an isolated laboratory.

Both the act of inventing something new and the finished good are considered to be aspects of innovation. In the case of services, the result need not be a brand-new service product but rather a little adjustment of an already offered service. a division of service innovations into two main groups. Offerings that were previously unavailable to clients or novel distribution methods for already-available services are considered radical innovations. Changes to current services that are seen as enhancements are known as incremental innovations.

Development of New Services

There are several places where fresh service innovation ideas might come from. Customers may provide recommendations. Frontline staff members may be taught to pay attention to client complaints. It is feasible to mine customer datasets for potential service additions. Customer demographic trends might propose new services and technological advancements. These concepts serve as the input for the "development" stage of the cycle for developing new services.

New concepts are assessed throughout the development stage of a new service, and the most viable ones are then developed. Concepts that successfully navigate the development hurdle are then taken into account in the "analysis" stage to assess their viability as a component of a successful business enterprise. Successful ideas continue on to the "design" phase after project approval. Designing a new service product and method that can be field tested with suitable staff training and a marketing campaign in a particular city or area takes a significant amount of time and money. Finally, a tested new service has a "full launch" that may be offered nationally or internationally.

DISCUSSION

The NSD process is fueled by enablers, including cross-functional teams, tools like spreadsheets, and an organisational setting with an openness to innovation. The service product, which consists of people, systems, and technology, is at the centre of. Employees and customers are both parts of the people component. To provide service quality that is reflected in the product, employees must be hired, trained, and given the necessary authority. In order to promote the desired conduct, the role of the customer must be specified with the proper incentive. Take note of the need of systems in both situations for completing the necessary duties. The back office has several systems to help service providers who work with customers. A front-office system is an example of an online hotel booking since it interacts directly with the consumer. Innovation in services often begins with technological developments.

Elements of Service Design

Take a look at a building. It starts in the architect's head and is transferred into paper as engineering plans for all the structure's systems, including the foundation, structural, plumbing, and electrical. The service concept, with the system components described and the associated text chapter, serves as an analogue to this design process. To provide a consistent service offering that realises the strategic service goal, several design components must be developed. The

components of the service design serve as a template that tells both consumers and staff what kind of service is expected of them [4]–[6].

The successful inguinal hernia surgery-only hospital in Toronto, Canada, will be utilised to demonstrate how each component of the service model supports the strategic purpose. Shouldice Hospital, which is privately held, has a stellar reputation because to the unique operating method it utilises to treat inguinal hernias. The recurrence rate, which is 12 times lower than that of its rivals, serves as a barometer for its performance. Shouldice's service model has the following structural components that enable its goal to target clients who exclusively have inguinal hernias:

Delivery Method: The Shouldice method is known for its emphasis on patient coproduction throughout the whole process. As an example, patients who move from the surgical table to the recovery room have shaved themselves before the procedure.

Design of the facility: The facility is purposefully built to promote movement and quick healing within four days, offering a return-to-normal-activity period that is about half that of conventional hospitals. Patients must trek to lounges, showers, and the restaurant since hospital rooms lack amenities like telephones and TVs. The vast hospital grounds are beautifully designed to promote wandering, while the inside is carpeted and furnished to eliminate any stereotypical hospital "associations."

Location: Shouldice has access to a global market because to its location in a significant urban area with first-rate air transportation. The substantial local population also provides a pool of potential patients who can be quickly booked to replace any cancelled reservations.

Planning for capacity: Because hernia surgeries are elective, patients may be booked in batches to cover the available operating time, maximising capacity. Shouldice can run like a fully booked hotel because to the simplicity of scheduling operations; as a result, supporting activities like cleaning and food service may also be fully used. The Shouldice service concept's management components assist in providing a high-quality medical operation.

Information: The yearly alumni reunion, which symbolises the hospital's ongoing engagement with its patients, is a distinctive aspect of the Shouldice service. Shouldice may develop a devoted clientele by maintaining patient information, which is a powerful type of word-of-mouth marketing. Shouldice may create a special database on its method by giving out free yearly check-ups.

Quality: The Shouldice technique of hernia repair is followed by all doctors, which contributes to the low recurrence rate of inguinal hernias among these patients. This is the most significant quality aspect. Patients who have problems are also sent back to the surgeon's physician. The Shouldice experience, which is more like a brief vacation than a traditional hospital stay, improves perceived quality.

Service Interaction: Dining together reinforces a service culture that promotes a family-like environment for both employees and patients. All staff members have received training on how to encourage patient movement, which aids in a quick recovery. Patients who had surgery that morning are urged to share their experiences with others who were slated for surgery the next day over dinner in order to allay preoperative anxieties.

Controlling supply and demand: Patients are checked through a mail-in questionnaire, and admission is only permitted with reservations. As a result, it is possible to efficiently manage patient demand in terms of time and appropriateness. As previously indicated, cancelled reservations are filled by walk-in patients or nearby residents on a waiting list, guaranteeing full utilisation of the hospital's capacity.

Equation for Customer Value

The design process should adopt a customer-centric approach to what is essential in order to guarantee acceptance of a new service innovation. The following equation may be used to express the value of a service from the viewpoint of a customer: Value is determined by the customer-produced results, the process quality price, and the service costs.

Results Achieved for the Client

Customers do not randomly choose to use a service or purchase a product. There must be a need that is met as a consequence of the service acquisition. Although a restaurant's atmosphere may be lovely and its staff polite, the food still has to be filling. However, certain services like purchasing petrol for a car serve a maintenance purpose that users would want to avoid.

Process Excellence

The manner in which a service is provided might sometimes be just as crucial as the outcomes that the client receives. Think about how much easier it is to purchase a book online than it is to go to a physical store. client acceptance of process quality improvements is necessary since the client is a participant in the service delivery. In order to ensure more timely delivery at a reduced cost, the postal service, for instance, mandates that new housing complexes use neighbourhood post boxes rather than providing door-to-door delivery. Customers will now experience inconvenience since they need a key to unlock their box, but their mail is still secure.

Cost to the Consumer

There is no justification for thinking that there is a trade-off between price and quality. Lower expenses should result from improving service quality consistency since customer expectations and perceptions are more in line. Due to their involvement in self-service activities, customers are also made simpler and less costly to serve [7]–[9].

Price of Getting the Service

Service providers often make the error of assuming that clients are just concerned with pricing, even if the cost of using the service may be as important. Customers love convenience, and online businesses like Amazon.com are aware of this. When shipping expenses are taken into account, ordering books online may be more expensive than going to the neighbourhood bookstore, but the inconvenience is spared. Finding approaches to reduce client acquisition costs has to be seen as a competitive strategy. The customer value equation brings the many components and opportunities for a competitive service into perspective. The value to the consumer should be the main consideration while creating a new service.

Positioning Strategically Using Process Structure

The first stage in creating a service process structure that will place a company in the competitive market is creating the service blueprint. The level of complexity and divergence intended for the

service is still up for debate. These terms were developed by G. Lynn Shostack, who used them to demonstrate how a service business might position itself based on the structure of its processes. The quantity and complexity of the process stages and sequences, as measured by the service blueprint, indicate the complexity of the service delivery structure. A takeaway order at a fast food restaurant, for instance, is easier to prepare than a gourmet supper in a fancy French restaurant. The level of divergence permitted at each service process step refers to the server's latitude or flexibility to tailor the service. For instance, since dealing with clients involves discretion, judgement, and situational adaptability, an attorney's tasks are quite different from those of a paralegal.

Companies like H&R Block have developed a low-divergence tax service for customers looking for assistance in producing basic tax returns in an effort to attract high-volume, middle-class clients. Low divergence allows the service to be supplied by personnel with restricted skill sets doing repetitive activities, resulting in consistent quality at lower cost. A men's hair salon is an example of a high-diversity approach that is altering the traditional barbering sector. High divergence is referred to be a specialised marketing approach that targets clients that are prepared to pay more for the personalisation. A targeted method that produces reduced complexity is specialisation, which helps to reduce the scope of a service. Recently, specialised stores providing only one kind of goods, such ice cream, cookies, or coffee, have proliferated in the retail industry. A unique or very high-quality service or product is required for such a strategy to be effective.

A strategy of adding additional services might be started, resulting in the creation of a structure with high complexity, in order to increase market penetration or maximise the income from each client. For instance, by including banking services, pharmacy, flower shops, books, video rentals, and food preparation, supermarkets have transformed into superstores. Repositioning need not be restricted to alterations to just one process structure dimension. In order to develop a strategy that incorporates shifting degrees of complexity and divergence, a family restaurant.

Service Schematics

Creating a new service based on the arbitrary assumptions made in the service concept might result in expensive, trial-and-error attempts to make the concept a reality. When a building is being constructed, the blueprints are architectural drawings that serve as a record of the design because blue lines are produced when the reproduction is printed on speciality paper. These blueprints outline the design of the final product as well as all the technical requirements for its production. A visual diagram may be used in a similar way to create services to represent a service delivery system [10].

It will become clear that this graphic has various applications when we look at the plan for an opulent hotel. The service blueprint is primarily a flowchart or map of all the transactions that make up the service delivery process. It raises queries like: What signage is required to support consumer actions? Can some transactions be skipped or converted to self-service options? Which transactions might fail at certain points? For instance, in order to prevent mistakes, the action "take food order" may call for measures like numbering the menu items. The "physical evidence" that consumers will see and experience is located at the top. Is the proof compatible with the customer's expectation and the hotel's reputation, should management inquire?

Customers initiate the processes, decisions, and interactions listed in the first row above the "line of interaction" while they are buying, using, and assessing a service. Any vertical flow line that crosses the "line of interaction" shows a direct channel of communication between the client and the business. Should the consumer communicate with the same individual throughout or be transferred? Do the porter, check-in clerk, bag handler and meal deliverer all need distinct interpersonal skills?

Two areas of interaction between customers and employees parallel the consumer behaviours. Actions that are "onstage" and in full view of the audience take place above the "line of visibility". The consumer cannot observe "backstage" operations like accepting phone orders for meals, which take place below the line of view. This section raises concerns about the proper staffing of backstage in order to prevent unnecessarily long waits onstage. The support procedures, such as a reservation information system and kitchen, that raise queries about the capacity needs of these back-office systems are found below the "line of internal interaction". Last but not least, the placement of the "line of visibility" inside a service design may instantly indicate the degree of client engagement in the service delivery process. For instance, a fine dining establishment has a higher line of visibility than a quick food establishment. Fast-food establishments want customers to see how clean the kitchen is.

In a blueprint is a detailed description of the method for delivering services that enables management to test the service idea before making any final commitments. By identifying possible sites of failure and emphasising chances to improve consumers' impressions of the service, the blueprint also promotes innovative problem-solving.

Service Process Design Taxonomy

The idea of divergence, the target of the service activity, and the level of client engagement may all be used to categorise service activities. Services are roughly categorised as low divergence and high divergence. The object of the service process is identified as either people, information, or items within these two categories. From no touch to indirect contact to direct contact, there are many levels of client interaction.

Size of the Divergence

A standardised service has a well defined and concentrated service that is built for big volumes. Routine jobs need a staff with just a minimal degree of technical proficiency. Opportunities to replace labour with automation abound due to the repetitive nature of the service. One strategy for establishing consistent service quality involves limiting service providers' choices, although doing so may have unfavourable effects. The production-line approach to service design is the name given to these ideas in a subsequent section.

More flexibility and judgement are needed to complete the service duties for customised services. Additionally, the consumer and the service agent discuss additional details. Due to the fact that the service process is unprogrammed and poorly defined, these aspects of customised services call for a high degree of technical and analytical expertise. Decision-making is given to service personnel who can carry out their duties with some autonomy and discretion in order to promote client satisfaction.

Purpose of the Service Process

When processing items, it is important to distinguish between those that belong to the client and those that are given by the service provider. When a customer's property is used for services like dry cleaning or vehicle repair, the item has to be secured to prevent loss or damage. The provision of enabling items is a crucial component of the service package for other services like restaurants. Because of this, maintaining proper stock levels and the quality of these supporting commodities becomes important, as seen by McDonald's attention to food purchases.

In all service systems, information is processed. This may sometimes be a back-office task, like processing checks at a bank. In the case of alternative services, such as telephone-based account balance verification, the information is indirectly sent by electronic means. It might be difficult to stay motivated while working long hours in front of a video screen as customer service representatives in call centres. However, there are other services, like counselling, where information is processed via direct communication between the project team and the client. For highly trained workers in these services, the challenge of solving unstructured challenges is crucial to their sense of fulfilment in their jobs.

Processing entails altering a person's appearance or location. The "high-touch" nature of these services necessitates that employees have both interpersonal and technical abilities. Given that the client is physically present inside the system, consideration must also be given to the design and placement of the service facility.

Customer Contact Method

There are three main ways that customers may interact with the system that delivers their services. First, the client may really be there and engage with the service providers in person as the service is being created. The consumer is well aware of the service environment in this situation. Second, the communication might be indirect and take place online from the client's home or place of business. Third, certain client interaction is not necessary to complete service tasks. Banking offers a case study where all three possibilities are present: obtaining an auto loan requires speaking with a loan officer, making payments on the loan is possible through an e-transfer, and maintaining the loan's financial records takes place in the bank's back office.

No involvement with service employees and customer engagement with service personnel are the two subcategories of direct customer contact. Self-service is often appealing since clients do the required labour when it is appropriate. A market segment of clients who are prepared to learn how to deal with machines has been crucial to the success of many cost-effective technological applications in services, like direct dialling and automated teller machines. All the concerns raised before about the processing of individuals become crucial to ensuring a positive customer experience when clients want direct contact with service providers. More management issues develop when customers are physically involved in the service process.

Issues arising from the physical presence of the consumer in the system should not limit service procedures with indirect customer interaction or with no customer contact. The consumer is separated from the service delivery system, allowing for a more manufacturing-style strategy to be used. Efficiency considerations may influence decisions about site selection, building layout, job scheduling, and personnel training. In reality, the combination of products processing and no

consumer touch results in categories that are often associated with manufacturing. For instance, dry cleaning and vehicle repair are both batch processes.

This taxonomy of service processes offers a mechanism to arrange the many process types found in service systems and helps in our comprehension of service design and administration. This taxonomy also aids in the design or redesign of service systems since it acts as a strategic positioning map for service processes.

CONCLUSION

The development of services is more difficult than the invention of products. Technology advancements can lead to radical or gradual service innovation. After service development, a service blueprint a visual diagram captures the design of the service delivery system. The idea of a front-office and back-office division of the service system was presented by the line of visibility in this figure. By measuring structural distinction utilising the metrics of complexity and divergence, the service delivery system's competitive posture was achieved.

Additionally, we considered categorising services based on the idea of divergence, the service's goal, and the extent of client interaction. The production-line method, customer co-production, customer interaction, and information empowerment were four general techniques that were taken into consideration while designing service delivery systems.

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CHAPTER 8

GENERIC METHODS FOR DESIGNING SERVICE SYSTEMS

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ABSTRACT:

The complicated process of designing service systems requires careful consideration of several elements and concerns. In order to successfully develop service systems, it is important to take into consideration the unique traits and needs of service-oriented enterprises. This abstract covers general methodologies and approaches that may be employed in this regard. The co-creation approach is a popular technique for creating service systems, to start with. Co-creation entails actively incorporating all relevant parties in the design process, such as clients, partners, and staff members. Organisations may obtain important insights, take into account various viewpoints, and make sure that the proposed service system satisfies the requirements and expectations of all stakeholders by including stakeholders in brainstorming, ideation, and prototyping. Co-creation encourages a customer-centric approach and increases stakeholder participation and ownership. Additionally, a methodical approach to creating service systems is offered through design thinking approaches. Empathy, experimentation, and iterative problem-solving are stressed by design thinking. Organisations may truly comprehend consumer demands, disprove presumptions, and provide novel solutions by adopting a human-centered approach. A collaborative and multidisciplinary approach that includes designers, academics, business strategists, and other stakeholders is encouraged by design thinking. Design thinking gives businesses the tools they need to create service systems that are responsive, user-friendly, and in line with customer expectations via an iterative process of prototyping, testing, and refining.

KEYWORDS:

Capacity, Service, Strategy, System, Time.

INTRODUCTION

The service package was described as a collection of characteristics that a client encounters. A supporting facility, facilitating products, information, explicit services, and implicit services are the five components that make up this bundle. These aspects are harmoniously integrated in light of the intended service package by a well-designed service system. As a result, creating the service system itself depends on how the service package is defined. There are several methods to approach this design.

A production-line method may be used to supply routine services. This method places services in a regulated setting to guarantee a constant level of quality and operational effectiveness. Encourage active client engagement in the process is another strategy. The client and the supplier may both gain a lot by letting the customer participate actively in the service process. The service is split into activities with high and low consumer interaction under an intermediate strategy. This makes it possible to create a technological core for low-contact activities that is separate

from the client. The information empowerment concept has been pushed by developments in information technology [1]–[3]. It should be noted that these methods may be utilised in combinations as well. For instance, banks deploy self-serve computerised tellers, separate their check-processing business, and provide tailored lending services.

Production-Line Methodology

We have a tendency to see service as something intimate that people do for other people. However, this humanistic perspective might be unduly restricting, which can prevent the creation of a creative service system design. For instance, there are occasions when a more technological approach to service delivery might be advantageous. Systems for manufacturing are created with process control in mind. The output is often machine-paced, and jobs are created with specific tasks that must be completed. To boost worker productivity, specialised equipment is provided. A service that adopts this assembly-line methodology may acquire a competitive edge by pursuing a cost leadership strategy.

The best illustration of this manufacturing-in-the-field method of customer service can be seen at McDonald's.⁹ Raw ingredients are measured and prepackaged off-site, removing any discretion from the workers' control over product size, uniformity, or quality. Additionally, storage spaces are created specifically for the desired combination of items. Foods and drinks that are not required for the service cannot be accommodated in additional space.

French fry manufacture serves as an example of careful attention to design details. Precut, partly cooked, and frozen fries are provided. The fryer is designed to produce the appropriate number of fries. This sum won't be either too much to accumulate a stock of soggy fries or too tiny to need preparing fresh batches rather regularly. Near the serving counter, a big, flat tray is used to catch the fryer's contents. This arrangement prevents fries from spilling out of a bag that is over full, saving food and keeping the area clean. To guarantee a uniform amount of french fries, a unique wide-mouthed scoop with a funnel in the handle is utilised. The smart design makes sure that workers never contaminate the fries or their hands, that the floor stays tidy, and that the volume is kept under control. A quick, proficient, and friendly staffer also serves the client what seems to be a sizable quantity of fries. From premade hamburgers to extremely visible trash cans that encourage guests to vacate their table, the whole system is carefully organised. Through meticulous planning and design, every aspect is taken into consideration. A number of characteristics make the production-line approach to service system design, which aims to adapt a successful manufacturing idea to the service industry, effective.

Limited Personnel Discretionary Action

On an auto assembly line, a worker is given clearly defined jobs to do along with the necessary equipment. The homogeneity between each automobile would be lost if employees had greater freedom and discretion to produce a more customised car. A manufacturing line is distinguished by quality control and standardisation. Customers would seek consistency in service performance for standardised regular services. For instance, it is promoted that any franchised location would provide the same high-quality service for specialised services like pest treatment and mattress repair. Thus, just as one product from a manufacturer is indistinguishable from another, a consumer may anticipate similar service at any site of a certain franchise business. However, the idea of employee empowerment becomes suitable if more individualised service is required. In

Chapter 9, The Service Encounter, the concept of giving workers greater flexibility to decide and take responsibility is examined.

Separation of Duties

The production-line method advises segmenting the whole work into sets of easy jobs. Task grouping enables labour skill specialisation. Additionally, the division of labour enables one to just pay for the skills necessary to complete the work. Naturally, this brings up the objection that many service occupations pay the minimum wage and are low-skill, dead-end positions. Consider the idea of a predetermined series of medical tests that patients must do as part of the diagnostic work-up in the context of health care. Medical technicians use sophisticated technology to conduct the tests. The procedure may be completed without an expensive doctor since it has been broken into simple steps.

Technology as a Replacement for People

Manufacturing has advanced because humans have been routinely replaced by machinery. As seen by the adoption of automated teller machines in place of bank employees, this strategy may also be applied in the service industry. But the "soft" technology of systems allows for a lot of achievement. Think about the usage of mirrors in an aircraft galley, for instance. This little item serves as a reminder and a discreet way for flight attendants to keep up a pleasing look. Another example is the greeting card display, which has an inventory replenishment and reordering capability built in. When the stock runs out, a coloured card displays to indicate a reorder. Insurance agents may customise their recommendations and depict the growth of cash values using a laptop computer.

Standardisation of Services

McDonald's' limited menu ensures a speedy hamburger. The service becomes a regular procedure with clearly defined activities and an orderly flow of clients when service alternatives are restricted, which opens up prospects for predictability and advance preparation. Because the process is simpler to manage, standardisation also contributes to consistency in service quality. Franchise businesses use standardisation to create nationwide organisations, solving the issue of demand being restricted to the local vicinity of a service site.

Client as Co-Producer

In the majority of service delivery systems, the client is present during service delivery. The client, rather of acting as a passive spectator, represents productive labour only when it is required, and there are chances to boost productivity by moving some of the service-related tasks to the consumer. Additionally, client involvement may boost the level of personalization. For instance, in Pizza Hut's lunch buffet, customers may choose pizza by the slice and build their own salads while the chefs regularly refill just the pizzas that are selling rather than completing individual orders. Thus, if a competitive strategy of cost leadership with some customisation is targeted at consumers who are interested in servicing themselves, including the client in the service process may assist it [4]–[6].

DISCUSSION

A range of service delivery models, from self-service to total reliance on a service provider, are feasible depending on the level of client engagement. Think about using a real estate agent as an

example. A homeowner has the choice of selling the house themselves or choosing to avoid any participation by hiring a real estate agent in exchange for a substantial commission. The "Gallery of Homes" strategy is a middle ground solution. The owner registers the house with the Gallery for a certain charge. Home buyers who visit the Gallery are questioned about their wants and given images and descriptions of potential homes. A schedule is created and appointments are established to meet with homeowners. The homeowners display their own properties, the buyers supply their own transportation, and as always, the Gallery agent does the final closing and handles the financing. A division of labour results in increased productivity. The homeowner and the buyer split the remaining tasks, while the real estate agent focuses on those needing specialised training and skill. The features that follow provide examples of some of the contributions that clients may make to the provision of services.

Self-Service

The greatest degree of coproduction substitutes individualised service for customer labour. For instance, in response to competition from Southwest Airlines' incursion into its Pacific coast network, Alaska Airlines switched to self-service technology. The introduction of automated check-in kiosks and the online sale of E-tickets are both ascribed to Alaska as the pioneering airline.

The contemporary consumer has transformed into a coproducer, earning rewards for their work in the form of ease. Surprisingly, a portion of the consumer base values the control features of self-service. For instance, salad bars are popular because they let the consumer customise his or her salad in terms of amount and ingredients. Finally, coproduction overcomes the issue of matching service supply and demand since the customer provides more service capacity when it is required.

Evening out Service Demand

A commodity that depreciates over time is service capacity. For instance, it is more reasonable to gauge capacity in a medical facility using physician-hours rather than the number of physicians on staff. This strategy emphasises the capacity loss that occurs to the service provider whenever a server is idle due to a lack of client demand. However, the type of demand for a service exhibits a marked fluctuation depending on the time of day, the day of the week, or the season of the year. Smoothing out demand fluctuations will result in a less need for service capacity and a fuller, more consistent use of the available resources. Improved service productivity is the end outcome.

Customers work as passive coproducers to adopt a demand-smoothing approach by scheduling their demand to coincide with the service's availability. Appointments and reservations are often used to do this; in exchange, customers anticipate not having to wait for the service. Price incentives may also be used to persuade customers to use the service off-peak hours. If efforts to balance demand are unsuccessful, high capacity utilisation may still be achieved by making consumers wait for services. As a result, customer waiting increases productivity by allowing for better capacity utilisation. Maybe waiting rooms should include a sign that reads, "Your waiting helps us to offer cheap rates! The client may need to be "trained" to take on a new, perhaps more independent role as an active participant in the service process. A novel idea in the field of services is the provider's instructional function. The customer has often been kept in the dark by the service provider, making them reliant on the server.

Customers' Own Content

The real creation of material that is utilised by others has become possible thanks to the Internet. Consider the online encyclopaedia Wikipedia.com, which sources its information from a virtual community. In contrast to conventional written encyclopaedias, which include just one person's opinion for each article, the Web site is self-monitoring as people contribute and criticise content to provide a far fuller presentation of material. Another example is the successful business model of Craigslist.com, which provides a free online forum for users to post pictures and descriptions of goods for sale in their local areas, directly competing with newspaper want-ads.

Customer Contact Methodology

A regulated environment is used for product manufacturing. The continual and effective conversion of inputs into products without the participation of consumers is the only objective of the process design. Using inventory, manufacturing may be planned to run at full capacity since it is not dependent on changes in client demand. When consumers are involved in the process, how can service managers design their operations to achieve production efficiencies? Richard B. Chase has made a strong case for the separation of service delivery systems into high- and low-contact client operations.¹⁰ The low-contact operation, sometimes known as the back-office, is operated like a factory, using all the production management theories and automation technologies. While obtaining economies of scale via bulk processing, this division of tasks may provide the impression of personalised attention to the consumer. The effectiveness of this strategy relies on the level of customer interaction necessary to provide the service and the capacity to identify a technological core of low-contact processes. This method of service design would seem to be best suitable for the processing-of-goods category in our taxonomy of service processes.

Customer Contact Level

Customer contact describes the customer's actual physical presence inside the system. The proportion of time a customer spends in the system compared to the entire amount of service time may be used to gauge the level of client engagement. In high-contact services, the client actively participates in the process to select the time of demand and the kind of service. The customer's experience has a significant impact on how well the service is viewed. However, since they are absent, customers have no direct impact on the manufacturing process of low-contact systems. Even if a service qualifies as high-contact, it could still be viable to isolate specific functions and operate them as factories. For instance, plants inside a service system include a hospital's laundry and a public transit system's maintenance operations.

High-Contact and Low-Contact Operations Separation

Each region may be developed individually to provide better performance when service systems are divided into high- and low-contact activities. Various factors were taken into account while designing the high- and low-contact operations. Keep in mind that jobs involving a lot of interaction call for those with strong interpersonal skills. Customers control the time of demand and, to some degree, the service itself, therefore the tasks and activity levels in these activities are unpredictable. Also keep in mind that client contact activities and low-contact processes may be physically separated, but tracking the status of customer orders or property still necessitates communication across the line of vision. The benefit of separation arises from the fact that these

back-office functions may be planned like factories to achieve maximum capacity utilisation. This strategy has been successfully used by airlines in their operations. Flight attendants and airport reservation staff wear uniforms created in Paris and go through training courses on how to treat customers properly. Few people see the baggage handlers, and the nearby depot runs aeroplane repair like a factory [7]–[9].

Opportunities for Sales and Service Delivery

Sales potential measures the likelihood of upsells and, therefore, how much more money may be made from each customer interaction. The most striking consequences are found at the extremes. Face-to-face customised services need highly skilled staff, but there is considerable potential for forming devoted client relationships. However, a website may reach a large number of prospective consumers at a cheap cost, but the chance for a sale is only as good as the customer's patience and the website's quality. It has been discovered that even self-serve checkout employing electronic scanning technology lowers the frequency of impulsive purchases. We shouldn't draw the conclusion that just one method of service delivery has to be chosen. Multiple channels of service should be taken into account to prevent leaving out certain market groups.

Education and Empowerment

Forget the "Age of Aquarius"; whether we like it or not, we are all a part of the information era. Information technology now affects everyone of us on a daily basis and is not only for computer "nerds." More than just grain flakes, puffs, and shreds are represented by the morning cereal on your table. You can be sure that Snap, Crackle and Pop three odd-looking little guys do not truly prepare and package your rice, nor does a tiny sprite frolic around pouring two scoops of raisins in each box of Raisin Bran. IT is present from the wheat or rice field, where it aids in the management of the planting, growth, harvest, and transportation of the grain, to the processing and packaging facility, to your market, and even to your dinner. IT is required for providing basic services like power and running water in our houses, as well as for fire and police protection. It's difficult to identify a facet of everyday life that isn't impacted by IT since it is such a vital component of daily living everywhere. Without a certain, no service could function today without the usage of IT, and effective managers will realise that IT provides much more than just a simple means to keep track of data. In fact, empowering both consumers and staff is one of its most crucial roles.

Empowerment of staff

IT was first used to record keeping. A company may have had a computerised customer database with client names and addresses, as well as a supplier database with providers of necessary products and services. It was a little bit simpler to keep the shareholders and the IRS happy thanks to these diverse databases. They sped up and improved record keeping, but secretaries continued to input data, procurement clerks continued to place orders for goods and services, customer service representatives continued to smile broadly, and factory floor employees continued to do their daily tasks. Top management was responsible for balancing these many tasks [10]. But everything changed when relational databases were developed. Anyone could access data from every facet of an organisation using relational or connected databases. Without going via the procurement office, a service worker might ask for essential goods from inventory or even start an order for replacement inventory. The time has come for the empowered employee.

Of course, maintaining these databases required the use of computers. The computers were effective at recording names and numbers, but when they started "talk- ing to each other," a new revolution was about to begin. Employees of one organisation might now communicate in "real time" with individuals in other organisations without having to physically be present, bridging functional barriers. For instance, when a Delta flight is cancelled, a Delta agent may use his or her computer terminal to book the stranded customers on not just alternative Delta flights but also planes operated by other airlines. The need to hastily run from one airline counter to another in quest of an open seat has been eliminated for both the agent and the customers.

Empowering the Client

In the last session, we looked at how IT and computers provide staff more authority, which results in greater customer service. IT has the potential to directly empower customers as well. One example of an extremely potent instrument is the Internet, which connects individuals all over the globe. Customers are no longer just reliant on neighbourhood service providers. A person with a medical query may look for solutions online, and we can purchase globally. Do you own a "sick" Mazda that resists the finest repairmen in your area? Simply go online and request answers from the users at <http://www.mx6.com/forums>. IT offers clients more opportunities to participate actively in the service process. For instance, we may visit the FedEx website, input the airbill number of a box dispatched by FedEx, and discover the precise location of the product at that time. We are able to determine who signed for it if it has been delivered. Additionally, we can book our own flights online and find out more about our destinations, all of which may greatly improve our travel experience.

The influence of IT on our everyday lives will undoubtedly increase, and rather than being measured in years, it will be measured in days and weeks. Customers may already shorten the checkout process at several supermarkets by weighing and labelling their own food. In certain instances, the buyer places a sticky, bar-coded label over the cucumbers; the integrated scale/checkout register then weighs the fruit, scans the bar code and calculates the cost of the transaction. In other instances, the consumer weighs lemons in the produce section using a scale. The customer inputs the item number from the sign over the lemons on the scale's number pad, and the scale spits out a sticky label with the final price. The consumer does not need to recall the code number from the item's trash to the scale since certain scales are very user-friendly and have buttons labelled for various goods. Many of us now participate in "total" purchasing experiences. We weigh and price our own fruit, scan all of our own grocery purchases, swipe our credit card, and bag our own goods.

Informational Property

Innovations created by the development of new services often need protection from copycat competitors. The rewards of innovation won't be reaped by the innovator without this protection. Exclusive rights to mental works including inventions, literary and creative creations, commercially utilised symbols, names, pictures, and designs are known as intellectual property rights. As a reward for creativity and to cover the expenses of R&D, these rights provide intellectual property owners the ability to make monopoly profits for a certain length of time.

Intellectual property is broken down into different types. Industrial properties are inventions for commercial use that are protected by patents granted for a set amount of time to prevent others from using the invention without a licence. Trademarks are distinctive signs used to avoid

product confusion. Industrial design rights prevent the appearance, style, or design from infringement. By maintaining the intellectual property rights that outline the standard of quality that clients may expect, service companies can safeguard their reputation and brand. For instance, McDonald's is well known for suing a rival that had unfairly capitalised on the "golden arches" distinguishing brand. This is serious business since a tricked consumer who goes the rival and gets subpar treatment can blame McDonald's for the incident.

CONCLUSION

The design of service systems may be altered using agile approaches, which are often employed in software development. Agile methodologies encourage adaptability, teamwork, and quick iterations. Organisations can swiftly adapt to changing needs, test and iterate on prototypes, and provide incremental enhancements to the service system by breaking down the design process into smaller, achievable tasks and employing cross-functional teams. In conclusion, creating service systems necessitates a blend of general techniques and strategies that take into account the particular traits and difficulties of service-oriented enterprises. Co-creation, service blueprinting, design thinking, service-dominant logic, data-driven methods, and agile techniques are useful tools for creating customer-centric, effective, and adaptive service systems. Organisations may use these techniques to develop service systems that add value, improve customer experiences, and promote company success.

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CHAPTER 9

A BRIEF DISCUSSION ON SERVICES AND TECHNOLOGY

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ABSTRACT:

The huge increases in industry and agricultural productivity resulted from the automation of labor-intensive tasks. When it comes to services, the advent of technology often empowers the client to complete the task independently. For instance, customers may buy petrol on their own using the credit card reader at the pump, and they can book their own flights online thanks to the Internet. A discussion of the advent of technology-enabled self-service follows an examination of the many roles that technology plays in the service interaction. The complexity of automation applications used in services is categorised. The topic of scalability in e-commerce is discussed after a discussion of the nature of Internet services. A examination of the administrative difficulties in implementing new technologies in the services industry finishes the chapter.

KEYWORDS:

Automation, Business, Electronic, Internet, Technology.

INTRODUCTION

The biggest garage sale in the world can be found online, not in your neighbourhood. Web users may browse through millions of postings for everything they can think of, including toys, china, software, computers, and sports memorabilia, all in one spot. It's understandable why eBay.com has grown to be a popular destination for bargain hunters and collectors. eBay utilises the Internet to connect with people and has developed a virtual marketplace for people to trade goods. As long as the price doesn't exceed \$1,000, an auction seller may put an item on the eBay website for a small insertion fee and, if it sells, pay a commission of 8.75 percent of the selling price up to \$25 and 3.0 percent of the amount beyond \$25. The fee is 1.5 percent of the balance above \$1,000.

A buyer must submit a user ID, a password, and the bid amount in order to make a bid. The Web site updates the status of the bid a little while afterwards. Sometimes it reads, "You've been out-bid," which means that a greater offer was received. After then, the bidder may make a higher bid. Bidders get daily emails informing them if their bid is still the highest or whether it has been surpassed during auctions, which may last up to a week. The "reserve," a minimum price that sellers may establish, is not made known at the beginning of the transaction [1]–[3].

There are various disadvantages to the eBay virtual auction. Contrary to the majority of live auctions, the actual goods cannot be handled. The chance to haggle with the vendor in person, as is customary at a flea market, is gone. A bidder must also put up a maximum bid in advance and is obligated to pay it if the price reaches that level and doesn't go any higher, even if they decide they no longer want the item during the auction. Paying for the goods before it is dispatched is a last negative. The top bidder must be contacted by the seller within three days to request

payment, often via PayPal. Before the item is dispatched, the vendor must first receive payment. The buyer's sole option if the item was misrepresented is to request a refund from the vendor. If that doesn't work, eBay will provide prospective customers with a feedback report about the seller. The seller may potentially be denied access to eBay in the future. eBay is one of the most popular Web-based inventions despite these shortcomings, and other Internet companies like Yahoo! and Amazon.com have copied it.

Technology in Customer Service

The manner in which consumers interact with service providers are significantly changing as a result of developments in communications and information technology. The expectations and behavior of airline passengers, for instance, have altered as a result of the Internet and airport shops. Customers are no longer required to wait in line at the airline counter to get a boarding ticket or to speak with a reservation clerk while on hold. Technology has taken the place of these insignificant face-to-face contacts. The contribution of the five technological modes to the service encounter.

When a consumer engages with a human service provider face-to-face and without the use of technology, this is known as the A mode. This mode simulates the conventional high-touch treatment we get from a hairdresser or chiropractor, where technology plays no significant role. The majority of personal care services and a few professional services, like legal, consulting, and psychiatry, come under this category. Because only the service provider has access to the technology needed to aid the delivery of face-to-face service, the B mode is also known as a technology-assisted service encounter. Many medical treatments come under this category, such as a complete mouth X-ray at the dentist or an eye check during an office visit to an optometrist. In the past, airline agents checked in passengers using a computer terminal, which is represented by mode B. Nowadays, however, travellers are urged to utilise check-in kiosks, which are represented by mode E.

Because both the customer and the service provider have access to the same technology, the C mode is also known as a technology-facilitated service encounter. For instance, a financial planner may use a financial model on a personal computer to show anticipated returns for various risk profiles while working with a client. The consumer and the human service provider are no longer physically co-located as of the D mode, which is referred to as a technology-mediated service encounter. As a result, the service encounter no longer involves the conventional "face-to-face" interaction. In order to access services like making a restaurant reservation or obtaining technical support from a faraway contact centre, communication is often made possible through a spoken telephone call. Also take into account how General Motors has integrated the "OnStar" remote monitoring service into their vehicles to reassure stranded drivers that help is only a phone call away.

In mode E, also known as a technology-generated service encounter, a consumer may self-serve totally in lieu of a human service provider. As businesses look for ways to save the cost of delivering services, this manner is becoming increasingly prevalent. Bank ATMs, checkout scanners, airport check-in kiosks, internet bookings, and interactive voice response technology in contact centres are all examples of commonplace technology.

Emma wakes up to the alarm, takes a shower, and then has frozen waffles cooked in the toaster for breakfast. She visits the airline's website, where she had made her seat choices and paid the

ticket weeks before, and prints her boarding card before heading to the airport. Her windshield's bar code is scanned by a scanner at the toll expressway's entry so that it may be billed later. She swipes a credit card at the entrance to enter the long-term parking garage at the airport. She puts an item she is checking on the conveyor into the X-ray machine inside the airport and secures it with a baggage claim tape. After arriving at her location, she checks the rental vehicle company's message board and goes to the lot to pick up the automobile she had rented. She direct-dials business appointments on her mobile phone as she enters the city and leaves a number of messages on answering machines. She stops at a vending machine for a sandwich and drink for lunch. She chooses the food she wants for dinner, puts it on a tray, pays with a credit card, and then looks for an open table in the cafeteria. She buses her dishes once she has finished dining. She returns the rental vehicle to the location where she picked it up after the day's business meetings, then she heads to the airport terminal to print her boarding ticket at the airline kiosk. As soon as she gets home, she picks up her vehicle from the garage, where a scanner scans the ticket and deducts the amount from her credit card. On her way home, she makes a stop at a grocery shop to pick up a few things. She uses the self-checkout machine and her credit card. She reviews her investments at home and sells shares of a company that isn't doing well.

DISCUSSION

The example of a normal business trip shows the variety of self-service options available and implies that both customer advantages and supplier incentive may be factors in the development of self-service. The main motivator for the service provider is the elimination of labour expenses for unproductive work. For instance, it costs \$7 to respond to a contact centre enquiry, but just 10 cents to do it online. Increased flexibility, accuracy, convenience, and speed opportunities lead to customer acceptance and often preference. Service has evolved from human contact to replacing service people with robots or, where practical, moving to anywhere-anytime electronic service. This situation is comparable to earlier experiences in the industrial and agricultural sectors of the economy, when human labour has been forcibly eliminated from the production process.

The first SST goals were service transactions without the potential to create value or increase revenue. This was because switching from using human labour to technology resulted in cost savings. For instance, when ATMs were introduced by banks 25 years ago, teller expenses were reduced while simultaneously offering clients convenience in terms of location and timing. Near-field communication chips, a new technology that keeps credit card information in mobile devices and enables users to use them instead of cards to make transactions, are eagerly anticipated by retailers. Retailers might watch client purchasing patterns and promote special deals with the use of technology. Customers benefit from the ease of ordering and paying for regular purchases without having to stand in queue, which speeds up service.

High-touch services like medical care, firefighting, and dentistry are by definition impervious to self-service, although some progress might be made in this direction. For instance, a patient may record a vital sign from home using a blood pressure monitor and then telephone the information to a remote receiver at the doctor's office. The rise of self-service has several effects on society. Low-paying, unskilled, and non-value-added service positions will eventually go away. Due to the advent of a self-service sector, the increase in service employment will be restricted to occupations requiring high levels of intelligence, creativity, and skill. Finally, in order to take into consideration the value of self-service labor, the definition of what counts as economic activity must be revised.

Services Automation

The most natural area to deploy automation in services has been the back office since these tasks are often repetitive and regular and may therefore benefit from labor-saving technologies. Many applications fall under the category of hard automation, such as replacing manual labour with machines. More sophisticated programmable gadgets have also been used in services, sometimes communicating with the consumer.

Due to the possibility for client interaction, a categorization of automation applications in services must go beyond the conventional categories used in production. The expert system, which is a kind of mental automation, is included in the following categories of automation, which were initially proposed by David Collier. In a set order. a device that repeatedly carries out subsequent stages in an operation in accordance with a programmed sequence, condition, and location, and whose set information is difficult to modify. Example of a service: an automated parking lot gate. A flexible sequence. a device similar to a fixed-sequence robot but with readily modifiable set information. Example of a service: an automated teller machine.

Back up a device that is capable of doing tasks that were previously carried out by a human being out of memory. An example of a service is an answering machine. mathematically regulated. a machine that can carry out a specific operation under the direction of stored, readily reprogrammable instructions that specify the order, conditions, and location. An amusement park with animated characters is an example of a service.

Intelligent: A machine having sensory perception capabilities, such as touch or visual sensors, that can independently perceive changes to the job or working environment and is capable of making decisions. An autopilot for a commercial aircraft is an example of a service. system of experts. a computer programme that detects issues by using an inference engine and a knowledge base. An example of a service would be troubleshooting lift maintenance. System that is fully automated. a group of devices and computers that carry out all the mental and physical labour necessary to create a something or provide a service. Example of a service: an electronic money transfer.

Presents instances of automation by service sector, with each case being categorized in accordance with the aforementioned categories, to demonstrate the amount of automation in services. The instances of automation show that services are becoming more capital-intensive and that the traditional view of the service industry as a low-skilled, labor-intensive industry has to be rethought. The automated systems will need increasingly complex programming, operating, and maintenance abilities from service professionals. More importantly, since modern technology has altered the nature of work, flexibility in an employee will be recognised. Consider the many adjustments that have been made to offices as a result of the arrival of personal computers and word processing tools [4]–[6].

The Facilitator of Internet as a Service

The Internet is a global, open network of linked computer networks that uses the Internet Protocol to transport data. It is a "network of networks" made up of millions of smaller academic, commercial, nonprofit, and governmental networks that collectively transmit different types of data and services like voice-over-IP, file transfer, streaming media, and access to the World Wide Web.

The terms "Internet" and "World Wide Web" are not interchangeable; while the Web is a collection of interconnected documents and other resources connected by hyperlinks and uniform resource locators, the Internet is a collection of interconnected computer networks connected by copper wires, fiber-optic cables, and wireless connections. Hypertext transfer protocol, which connects and grants access to the World Wide Web's files, documents, and other resources, really operates on top of the Internet protocol.

From a service provider's point of view, the Internet is the best medium for reaching out to its clients in a practical way. Up until recently, the connection relied on a desktop computer with phone, cable, or satellite Internet access. Modern wireless communications and Web 2.0 social networking have opened up new possibilities for communicating with existing clients and attracting new ones.

General Packet Radio Service, a packet-oriented mobile data service accessible to users of the 3G cellular communications system, is also a new communication technology that is now available. The GPRS technology may send data immediately to mobile devices, which are essentially constantly online. These more recent phones work well for alarms or instant messaging. In the future, service businesses may actively push information to clients as opposed to waiting for inquiries. It's unclear how this incursion will be perceived.

E-Commerce

The Internet, international phone networks, the TCP/IP communication standard, the URL addressing system, personal computers and cable TV, customer databases, sound and visuals, and user-friendly free browsers all came together to make e-commerce a reality. A website may serve a variety of functions for various companies. Some businesses only connect with workers, raw material suppliers, or providers of auxiliary services like accounting, legal counsel, or research materials over the Internet. Around the globe, regional and national governments maintain websites that are useful to both visitors and companies. Other businesses offer goods and services to customers directly via websites. Clearly, there are a variety of methods to utilise websites:

As A Means of Selling a Product or Service

Some shops don't have physical storefronts, including Amazon.com and Newegg.com. These businesses only do online sales and either distribute items locally or ship or send them out.

As an Additional Channel

Traditional merchants with a Web presence, like Barnes & Noble, are referred to as "click-and-mortar" businesses. Items may be delivered by mail from a local warehouse or by truck from a regional warehouse inside metropolitan regions. For instance, customers in areas with "bricks-and-mortar" Barnes & Noble stores may purchase a book over the phone or online, and it will be delivered to the neighbourhood shop that same day. Home Depot intends to provide a comparable service.

For Technical Assistance

Product companies who provide post-sale technical assistance consider the Internet to be an inexpensive method of assisting consumers with typical issues. For instance, the Dell Computer website has answers to queries about new computer setup.

To Enhance Current Service

Using a website may enhance services that are often provided by mail. For instance, Harvard Business School Press makes business cases available online at <http://harvardbusinessonline.hbsp.harvard.edu> so that faculty members may study them before adopting them or read previous editions of the Harvard Business study.

To Fulfil Orders

Customers may find it easy to purchase services via a website. Quickly, airlines started using websites to let people purchase electronic tickets. Bypassing travel agencies as a distribution channel, this service lowers the cost of missions for the airlines. Customers may obtain schedules and a means to shop around for the best deal on the airline websites. Airlines are able to "advertise" lower rates for the next weekend through e-mail because to this direct link with clients.

To Disseminate Information

A lot of businesses utilise their websites to provide information about themselves. Information repositories are other websites. People looking to purchase a vehicle may find information on the kbb.com website, for instance.

To Interact with the Membership

Organisations utilise a website to share information with their membership, such as announcements about conference programmes, job ads, and questions. For instance, the production and operations management faculty organisation POMS offers information to its members at <http://www.POMS.org>. Online gaming offers a handy alternative for enjoyment. Other websites just include games, unlike Treeloot.com, which blatantly relies on compelling users to watch adverts.

Sizes of E-Service Products

Many of the traits of conventional services are also present in electronic services. Electronic services are intangible because it is difficult to completely quantify, inventory, or define the service transactions and experiences offered through electronic channels. The variety of electronic services is influenced by the various demands, expectations, self-service capabilities, interaction readiness, and consumer perceptions. For instance, the variability in delivery speed is influenced by a customer's modem or Internet connection to the electronic service provider. Finally, both traditional and electronic services include simultaneous and, thus, inseparable consumption and supply of electronic services.

Core and auxiliary components are present in both conventional and electronic services. The fundamental components of a service are its core components, although its auxiliary components provide less crucial service dimensions. Electronic services may have both core and auxiliary components, and they can be delivered online or offline, such as when food is delivered from a nearby supermarket or multiplayer gaming services are offered.

Dimensions of E-Service Process

Both back-office operations with minimal direct client contact and front-office processes that do contain direct consumer engagement are considered service processes. The degree of contact and

engagement, the level of labour intensity, and the level of labour customisation may all be used to categorise service operations. Customer involvement in the service delivery is another aspect of the service procedures.

The ability to distinguish between processes using client contact, personalization, interaction, labour intensity, service inputs, and technology varies amongst electronic services. Online interactive service dimensions and offline noninteractive service dimensions make up electronic service offerings. While offline service dimensions have little to no client touch, online service dimensions need constant user interaction with the service system.

Customization may take place both during online consumer contacts with the electronic service and during offline, customer-isolated back-office procedures. Technologies that link adaptable technologies directly to online service operations, such as video conferencing systems, may be used for online customisation. Offline customisation may be carried out using the labour force and technological resources in conventional back-office service operations.

E-business strategies

In their book *Place to Space*, Peter Weill and Michael Vitale outline eight standardised e-business formats.

Content Creator use middlemen to provide content. The New York Times is one example of a conventional information source that uses the Internet to disseminate news. Others charge a fee for online company information, such as Hoover's.com. **Direct-to-Customer** provides products or services directly to customers, often eluding members of the conventional retail channel. Online stores that sell anything or items like personal computers have made the greatest noise about using the Internet. **Provider of full services** offers the whole spectrum of services in one area, both directly and via partners. This category includes a lot of B2B suppliers.

Intermediary by concentrating information, connects buyers and vendors. Because the Internet's reach is not limited by region, these websites are sometimes referred to as "market makers". The capacity of eBay to develop a market for goods that would be difficult to sell locally is a contributing factor to its success. **Public Infrastructure** brings rivals together to share a single IT infrastructure. For instance, the SABRE reservation system, which was first created by American Airlines and is now used by the whole airline sector. **Integrator** for Value-Nets gathers, synthesises, and distributes information to coordinate operations across the supply chain. As an example, consider the Konbini distribution system created by 7-Eleven in Japan [7]–[9].

Virtual neighbourhood creates and supports a community of online users who have a shared interest, facilitating social interaction and service delivery. The most well-known example is MySpace, which has 106 million users as of September 2006. Between Japan and Mexico, MySpace would be the 11th-largest nation in the world.⁶ **Whole-of-Enterprise** provides a single point of contact for the whole company, including all services offered by a big multi-unit organisation. Transaction fees, fees for information and counsel, fees for services and commissions, and fees for advertising and listing are among the sources of income. The crucial strategic consideration is who owns the connection with the client, the data, and the transaction.

Affordability of Scalability

Scalability refers to a company's capacity to raise contribution margins as sales volume rises. Only when the variable cost of supplying a new consumer is zero can there be infinite scalability. There are three ways to increase scalability: by limiting services to data or information transmission, letting consumers serve themselves, and letting customers serve one another. Keep in mind that kbb.com stands for Kelly Blue Book, a resource for new and used car prices, and that Everdream.com is a business that Dell acquired in 2009 that enables small businesses to outsource their IT function by leasing their computers and receiving daily remote backup, maintenance, and support for their hard drives.

Scalability alone cannot prevent a service from being commoditized and leaving just the lowest-priced provider to compete. By using the "network effect," differentiation may be achieved. A network effect occurs when the worth of each individual consumer rises together with the overall number of customers, as in online auctions. A strategic advantage might result from developing a reputation for effective human involvement. Customers often require assistance, therefore having a workforce of helpful, efficient, and sympathetic contact centre representatives helps increase client retention.

Of course, self-service is provided at home with Internet-enabled service. The level of client satisfaction with Internet service may surprise us. It is remarkable that Internet merchant Newegg scored an 88, the highest rating given to any service provider. For digital services, self-service has established itself as a popular and reliable delivery method.

Services Technological Innovation

Traditions are destroyed by innovation, thus careful preparation is necessary to make it successful. The productivity gains of new technologies will inevitably alter the nature of labour. Employee familiarisation should be a part of every new technology launch to help employees adapt to their new roles and to give them a voice in how the technology is designed. The effects of new technology may extend beyond the back office for services. It could need a shift in the part that consumers play in the provision of services. Focus groups or interviews to get customer feedback on the new technology might also be used to inform design decisions to prevent difficulties with adoption in the future.

Issues with Introducing New Technology in the Services

Because clients are involved directly in the provision of services, "the process is the product" in the case of services. Therefore, consumer approval is crucial to the success of technology developments, especially for the front office. Customers are often affected in ways more than just a lack of individualised attention. Customers could also be required to pick up new skills or give up a reward. When implementing modifications to the service delivery system, it is important to take into account the role that consumers play as active participants or coproducers in the service process. Employees are impacted by new technology as internal customers and often need retraining. The acceptance of word processing by secretaries, who were used to typewriters, was more significant than the example of scanning in retail shops.

Innovation in the back office that doesn't immediately impact the client may cause new complications. Think of the employment of magnetic-ink character recognition technology in banking, for instance. This technical advancement had no impact on the consumer; rather, it

increased the productivity of the "hidden" check-clearing process. However, unless all banks consented to stamp their checks with a common character code, the advantages could not be fully realised. Without such an agreement, it would be necessary to sort the checks of recalcitrant institutions by manually, which would drastically restrict the usefulness of this technology.

The check-clearing procedure improved significantly after all banks in the US decided to use the same magnetic-ink character imprints on checks. Although banks' self-interest was a major driving force, the Bank of America took the lead in promoting the idea. Their ability for manual sorting had been surpassed by the amount of checks being processed. The inability of many concepts to be copyrighted, however, limits the ability to develop in the services sector. The concept of self-serve retailing is one illustration. This field has a lot of promise for future organisational and technical development. However, since the competitors may easily copy and swiftly execute breakthroughs, the potential incentives for inventions are reduced.

Willingness to Adopt New Technology

The term "technology readiness" describes a person's predisposition to adopt and apply new technologies for achieving objectives in his or her personal and professional life. Eight technology-related paradoxes were discovered via research on people's responses to technology: control/chaos, freedom/enslavement, new/obsolete, competence/incompetence, efficiency/inefficiency, fulfills/creates demands, assimilation/isolation, and engaging/disengaging. These contradictions suggest that technology may elicit emotions of both a good and negative nature. For instance, the paradox of competence/incompetence may promote sentiments of effectiveness and intellect or cause feelings of stupidity and incompetence.

There are two consequences for managers who implement new technologies. First, how will the new technology-based service effect the overall degree of customer readiness? The extent and suitable technology to adopt, the speed of implementation, and the support required to help consumers will become clear after this degree of preparedness is determined. Making the best decisions for the design, implementation, and management of the employee interface requires an awareness of the workers' technological readiness. Technology readiness is a particularly crucial issue for contact staff members that consumers may resort to for support when issues emerge. People who do well in terms of both technical readiness and interpersonal skills are probably ideal candidates for tech-support positions [10].

The Radio Frequency Identification Situation

An automated identifying technique called radio frequency identification uses tags or transponders called RFIDs to store and remotely retrieve data. An antenna and an integrated circuit on a silicon chip make up the tag. To activate the tag, read the data contained there, and in certain circumstances, write data as well, a reader sends out a radio signal. The tags may be integrated into a product, implanted in an animal or person, or affixed to shipping pallets for supply chain inventory tracking. Similar to bar codes, RFID technology transmits a lot more data and does not need line-of-sight scanning.

Airlines now utilise barcode readers on baggage belts, as an example, although a significant portion of the luggage gets missed by the scanners. However, a handheld scanner delays loading. Bags might be detected as they pass a baggage-belt scanner and luggage could be sorted and sent to the appropriate aircraft automatically since a passive RFID tag can be read up to a few metres

away. When RFID readers and tags are more reasonably priced, airlines want to implement them globally. A typical reader sold for roughly \$1,000 in 2005, and the average price of a tag was between 10 and 20 cents.

Many applications in the service sector now employ RFID tags:

1. **Passports:** Malaysia released the first RFID passport in 1998.
2. **Transportation costs:** In 1995, RFID permits were first used in Paris, and they are now prevalent across Europe.
3. **Human implants:** VIP patrons at nightclubs in Barcelona and Rotterdam are recognised by an implanted chip, which they subsequently use to purchase beverages.
4. **Libraries:** Barcodes are being replaced with RFID on library materials for patient identification. RFID tags that are implanted assist prevent errors.

A Click Away from Service Benchmark Best-In-Practice

By working together, non-profit hospitals and other healthcare providers may make significant progress towards reaching best-practice objectives. Think of Premier, Inc. as an association of such businesses. Group buying and supply chain management, insurance and risk management, and informatics and performance enhancement are services offered by Premier's three business areas. Due to Premier's exceptional performance, the service industry received the Malcolm Baldrige Award in 2006.

Cleveland Regional Medical Centre in Shelby, North Carolina, one of the alliance's members, utilised ClinicalAdvisor™, Premier's online benchmarking programme, to assess its key performance indicators and pinpoint areas that needed improvement. CRMC had successes as a consequence of employing ClinicalAdvisor™, including a 25% drop in acute myocardial infarction mortality and a reduction of the readmission rate of congestive heart failure patients by 37%, 70%, and rate of infection after knee surgery.

ClinicalAdvisor™ is a pioneer in the healthcare sector, offering benchmarking for clinical efficiency and quality performance using a vast national database of performance parameters. Strategic planning, clinical and financial performance, financial performance, and regulatory compliance are some of this web application's key features. RFID adoption is not without controversy. First, because there is no international public authority that controls the frequencies used for RFID, deployment relies on establishing a global consensus on a standard. Second, privacy and security issues are brought up by the unauthorised monitoring of RFID tags. An RFID tag that has been attached to a product is functioning forever and may be used for monitoring, for good or harm.

CONCLUSION

Summary In this chapter, we looked at how technology affects customer interactions, which led us to talk about technology-enabled self-service. Levels of complexity were used to categorise automation in service delivery. It was addressed how electronic services changed as a result of the development of the Internet. The idea of scalability was utilized to distinguish between e-service and e-commerce among eight general e-business models. The chapter came to a close with a discussion of the difficulties in implementing new technology in the field of services using RFID as an example.

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CHAPTER 10

CHARACTERISTICS OF SERVICE QUALITY

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ABSTRACT:

In service-based sectors, consumer happiness and loyalty are heavily influenced by service quality. For businesses looking to provide excellent client experiences, understanding the factors that affect service quality is crucial. The main aspects and characteristics of high-quality service are examined in this abstract, which incorporates knowledge from previous studies and literature. Reliability, or the capacity of a service provider to offer services consistently and correctly, is the first attribute of service quality. Aspects of reliability include keeping your word, delivering services on schedule, and making sure the work is done well. Reliability is important to customers because it fosters their confidence in the service provider. The second trait is responsiveness, which refers to a company's readiness and promptness to assist clients and meet their demands. Being responsive entails being alert, compassionate, and able to provide support and solutions when they are needed. The organization's dedication to client satisfaction is shown through its responsiveness. The third attribute, assurance, is concerned with the expertise, trustworthiness, and knowledge of service providers. The capacity to inspire confidence and trust via professionalism, knowledge, and good communication is referred to as assurance. Customers want confirmation that the service provider has the tools and capabilities to offer the service as promised. The fourth quality is empathy, which requires comprehending and attending to each customer's specific requirements, issues, and feelings. Empathy entails being really concerned, paying attention, and modifying the client experience to match their expectations. Customers prefer service providers that show empathy and cherish personalized connections.

KEYWORDS:

House, Management, Quality, Services, Village.

INTRODUCTION

For a long time, providing service "with a smile" was sufficient to please most clients. However, several service companies now distinguish themselves in the market by providing a "service guarantee." Service warranties often provide the disappointed consumer with a refund, rebate, or free service as opposed to a product warranty, which promises to fix or replace the defective item. Consider the First Interstate Bank of California as an example. After speaking with its clients, the bank's management learned that customers were irritated by a variety of reoccurring issues, including incorrect statements and malfunctioning automated teller machines. After the bank started paying consumers \$5 for reporting each such service failure, account retention increased. What is unexpected, however, is that the service guarantee also served to inspire the staff. Out of pride, the staff members at a branch chose to keep the location open till the ATM was fixed at 8:30 p.m [1]–[3].

Customer reviews are an additional unstated advantage of a guarantee. Customers now have an incentive to communicate with the business rather than simply their friends. A service guarantee promotes the company's dedication to excellence while also focusing staff by clearly outlining performance requirements and, more importantly, cultivating a network of devoted clients. The success of Hampton Inns, a pioneer in the "100% satisfaction guarantee," demonstrates that high calibre is a strategic advantage. More than 100 customers who used the assurance in a poll of 300 visitors said they had already returned to a Hampton Inn. The hotel company estimates that for every \$1 given to a displeased customer, it has made \$8 in revenue. The necessity for a definition that incorporates five dimensions reliability, responsiveness, assurance, empathy, and tangibles indicates the complexity of the subject of service quality. We present the idea of a service quality gap using these parameters. This gap results from the discrepancy between what customers anticipate from a service and how they actually perceive it. The SERVQUAL survey tool, which gauges service quality, is based on the application of the service quality gap idea.

The architecture of the system for delivering services sets the tone for quality. As a result, ideas from product design, such as Taguchi techniques, poka-yoke, and the deployment of quality functions, are used to develop service delivery systems. To track changes in service performance measures and alert when intervention is required, statistical process control is utilised. The foundation of a walk-through audit, a customer satisfaction survey tool, is the idea that every consumer participates in the customer service process. But because service breakdowns can happen sometimes, the usage of an unconditional service guarantee could be provided in place of a product warranty. Service recovery plans may be developed in advance of a service breakdown since the client is present throughout service delivery.

The quality of services is evaluated throughout the service delivery process. Every time a company interacts with a consumer, it has a chance to either please or dissatisfy them. This is known as the "moment of truth." When service perceptions are contrasted with desired service expectations, customer satisfaction with a service may be determined. Service is seen to be of excellent quality and also to be a welcome surprise when expectations are surpassed. However, service quality is judged unacceptable when standards are not reached. Quality is good when perceived service meets expectations. These expectations, which are based on a variety of factors including word of mouth, individual requirements, and prior experience.

Marketing researchers looked at the service categories of appliance repair, retail banking, long-distance calling, securities brokerage, and credit card companies before identifying the dimensions of service excellence. Consumers utilise five key criteria to evaluate the quality of a service: dependability, responsiveness, assurance, empathy, and tangibles. These criteria are presented in decreasing order of relative significance to consumers.

Reliability. the capacity to correctly and reliably provide the offered service. Customer expectations for reliable service performance include timely completion of tasks in a consistent way without mistakes. For instance, most individuals value getting their mail at around the same time each day. Additionally, precision in invoicing and record keeping are anticipated in the back office. **Responsiveness.** the readiness to assist clients and offer fast service. Making consumers wait, especially without obvious cause, tarnishes the sense of quality. The capacity to bounce back swiftly and professionally after a service failure may provide extremely favourable views of quality. For instance, providing free beverages on a delayed flight might turn a potentially negative client experience into one that is positively remembered.

Assurance. the staff members' professionalism, kindness, and capacity to inspire confidence. The competence to provide the service, courtesy and respect for the client, good communication with the customer, and a general attitude that the server has the customer's best interests at heart are all included in the assurance dimension. Empathy. giving clients individualised care and attention. Approachability, sensitivity, and an attempt to comprehend the customer's requirements are characteristics of empathy. The capacity of an airline gate agent to make a customer's missed connection the agent's own issue and find a solution is an illustration of empathy.

Tangibles. physical infrastructure, machinery, staff, and communication tools and materials. The state of the physical surroundings is observable proof of the service provider's consideration and attention to detail. This grading factor may also include how other customers behave when using the service. Customers compare anticipated and perceived service to these five aspects to determine the quality of the service they get. Service quality is measured by the discrepancy between anticipated and received services; customer satisfaction may be either negative or positive.

DISCUSSION

Leading service providers often use customer feedback to calculate the difference between anticipated and actual performance levels. For instance, the questionnaire is used by Club Med, an international hotel group that manages resort communities across the globe. Immediately after their departure from a Club Med holiday, this questionnaire is distributed to all guests to help them evaluate their overall experience. It's important to note that the first question specifically asks the visitor to assess the discrepancy between their expectations and the actual Club Med experience. GAP 5 is the measure of the gap between consumer perceptions and expectations. In order to maximise customer satisfaction, gaps 1 through 4 associated with service delivery must be minimised.

The disconnect between consumer expectations and management views of these expectations is known as the market research gap. GAP 1 results from management's incomplete comprehension of how consumers develop their expectations based on a variety of factors, including advertising, prior interactions with the company and its rivals, individualised requirements, and conversations with friends. Increasing market research, promoting greater communication between management and its contact staff, and minimising the number of management layers are all methods for bridging this gap.

The management's failure to develop goal levels of service quality to satisfy customer perceptions of expectations and convert them into feasible specifications is the cause of the service design gap. GAP 2 may be closed by creating targets and standardising service delivery duties. It may be caused by a lack of management commitment to service quality or a belief that it is impossible to achieve customers' expectations. Because the actual execution of the service does not adhere to the guidelines established by management, there is a compliance gap. Lack of cooperation, bad hiring practises, insufficient training, and improper job design are just a few causes of GAP 3. Media advertising and other communications from the company shape the customer's expectations of the service. GAP 4 refers to the disconnect between service delivery and external communications, which take the shape of overblown claims and a lack of information for contact employees.

Recognizing the Client

The order of actions that should be taken while designing a new service process is indicated by the numbering of the gaps (1–5). How to fix these service quality gaps will be covered in the next sections of this chapter. We start by thinking about methods for gauging service quality.

Measuring the Level of Service

Because so many intangible aspects affect customer happiness, measuring service quality may be difficult. Service quality comprises various psychological elements, as opposed to a product having objectively measurable physical attributes. Additionally, since it affects a person's future quality of life, as it does in the case of health care, service quality often goes beyond the initial encounter. The SERVQUAL instrument, a powerful tool for measuring customer satisfaction that is based on the service quality gap paradigm, captures the many aspects of service quality.

Servqual3

A multi-item scale called SERVQUAL was created by the authors of the service quality gap model for assessing the five aspects of service quality. The Student CD-ROM has a two-part instrument that matches an expectation statement with a correlative perceptual statement. On a seven-point Likert scale, customers are asked to indicate how much they agree or disagree with the assertions. The 22 statements in the poll cover every facet of the five service quality criteria. Customers' scores for matched expectation and perception statements are added together to provide a score for the quality of the service. According to this rating is known as GAP 5. In a similar way, scores for the other four gaps may also be computed. This tool has been created and approved for usage in a range of service environments. The most important use of SERVQUAL, according to the authors, is monitoring service quality trends via recurring customer surveys. If any unit providing multisite services has poor service quality, management may utilise SERVQUAL to identify it so that the cause of the customers' negative opinions can be addressed. In marketing research, SERVQUAL might be used to compare one service with a rival's and once again pinpoint the dimensions of excellent or subpar service quality.

Service Excellence through Design

The same is true for services; quality cannot be checked into or otherwise added to a product. The architecture of the service delivery system signals the first priority for quality. How can a service be created with quality in mind? One strategy is to concentrate on the four components of The Nature of Services, the service package that we examined.

Quality Is Included Throughout the Service Package

Take a look at this low-cost hotel as an example of how to compete on total cost leadership:

1. **A Supporting Structure:** The building's architecture calls for the use of low-maintenance materials like concrete blocks for construction. An automatic subsurface sprinkler system waters the lawn. In order to limit any failure to a single room, the air conditioning and heating system is decentralised and uses individual room units.
2. **Moving Products:** The furniture in the room is sturdy and simple to clean. Instead of glass, which is more costly, has to be cleaned, and would therefore diminish the impression of being on a budget, disposable plastic cups are utilised [4]–[6].

3. **Information:** Online computers keep track of registration, bookings, and visitor payment. Keeping track of a customer's previous stays expedites check-in in the future, prevents billing mistakes, and predicts demands. This technology makes it simple for visitors to check out and instantly alerts the cleaning crew when a room is available for making up.
4. **Explicit services:** Noting the time of check-out enables planning for early maid service and inventorying available rooms for early guests. Rooms may be cleaned and made up by maids according to regular procedures. Even "trivial" things like the curtains being open give every room the same impression.
5. **Embedded Services:** Desk clerks are chosen because of their appealing looks and strong interpersonal abilities. All visitors will get consistent and predictable care thanks to training in standard operating procedures.

In order to preserve compliance to the design criteria, the low-cost hotel implemented a quality system using these design aspects. The methodology is founded on the idea that quality is "conformance to requirements." This example demonstrates the necessity to clearly define what constitutes requirements compliance in quantifiable terms. When nonconformance arises, quality is seen as an action-oriented task needing remedial actions.

Taguchi Approaches

Genichi Taguchi, who promoted "robust design" of goods to assure their correct operation under challenging circumstances, used the example of the low-cost hotel as an example of how Taguchi techniques may be applied.⁴ The concept is that a product's performance in adverse conditions may demonstrate its quality to a buyer. For instance, a telephone is built with significantly more durability than is required since it will often be yanked off a desk and dropped to the ground. In our example of a cheap hotel, the structure is made of concrete blocks and outfitted with sturdy furnishings.

Taguchi also used the idea of resilience in the production process. As an example, the caramel candy recipe was altered to make the plasticity or chewiness less responsive to the cooking temperature. Similar to this, when a room is vacated, our low-cost hotel immediately notifies the cleaning team using an internet computer. It is possible to spread out this work throughout the day and prevent a rush in the late afternoon that can lead to a decline in quality by keeping the maids informed about which rooms are open for cleaning.

By continually adhering to design requirements, in Taguchi's opinion, product quality may be accomplished. As he calculated the square of the divergence from the objective to determine the cost of poor quality. Again, take notice of the budget hotel's adherence to standard operating procedures, which it uses to encourage consistent guest care and room preparation.

Poka-Yoke

Shigeo Shingo felt that staff might produce high-quality work using low-cost, in-process quality-control procedures, eliminating the need for expensive inspection. He saw that mistakes happened more often as a result of disturbances to routine or attention gaps than because staff were unskilled. He promoted the use of "foolproof" gadgets known as poka-yoke techniques, which may be loosely translated. Checklists or other manual devices are used in poka-yoke procedures to prevent employee error. Service faults may come from the client or the server, as

stated by Chase and Stewart and summed up by them. Poka-yoke techniques should thus handle both origins.

Task, treatment, and tangible faults are the three types of service provider mistakes. An example of a job poka-yoke gadget is the employment of a french fry scoop at McDonald's to measure out a consistent amount of potatoes while simultaneously improving hygiene and, therefore, the aesthetic quality of the service. Tellers are required to record the client's eye colour on a checklist at the beginning of the transaction as part of an innovative treatment poka-yoke developed by a bank to guarantee consumer eye contact. Mirrors in staff break rooms are an example of a tangible poka-yoke that encourages proper appearance while returning to the client area. A message won't be sent until it has been error-proofed thanks to Microsoft Outlook's automated spell check function.

Since clients actively participate in the provision of services, they also need assistance to prevent mistakes. The three types of mistakes are preparation, encounter, and resolution. Shouldice Hospital in Toronto, Canada, specialises only in inguinal hernia surgeries. To determine if a patient's medical condition is suitable for treatment at Shouldice, each prospective patient is required to complete a thorough medical survey, or preparatory poka-yoke. Many poka-yokes that people come into contact with are discrete, such the usage of height bars at amusement parks to make sure riders exceed size restrictions or frames at airport check-in desks to determine the amount of permitted carry-on baggage. Customers' behaviour when they leave the service is influenced by resolution poka-yokes. Trash cans and tray-return stations are carefully placed near the entrances of fast-food establishments.

An essential proactive tactic to prevent errors is to use physical design to regulate staff and consumer discretion. Limiting discretion and using poka-yoke procedures helps ensure error-free service since it is difficult for management to interfere in the service process and enforce a quality assessment system. A "beep" from our word processor alerting us that an erroneous keystroke has been performed is a fascinating example of how subtle design elements might channel service behaviour without suggesting compulsion.

Deploying Quality Functions

Toyota and its suppliers often use the quality function deployment procedure, which was created in Japan to gather consumer feedback at the product design stage. A matrix, referred to as a "house of quality," is created as a consequence of the process for a specific product that links consumer criteria to engineering traits. The core principle of QFD is the notion that goods should be made to appeal to consumer needs and preferences; as a result, marketing, design engineering, and manufacturing operations must work in tandem. The "house of quality" offers a structure for converting client happiness into recognisable and quantifiable conformance requirements for service or product design. Although QFD was created for use in product planning, the following example demonstrates how it may also be used to the design of systems for delivering services.

Village Volvo is a privately owned vehicle repair shop that competes with Volvo dealerships for customers by specialising in Volvo auto servicing. In order to identify areas where its competitive position may be strengthened, Village Volvo has chosen to evaluate its service delivery system in relation to that of the Volvo dealer. The following are the stages in carrying out a "house of quality" and a QFD project:

1. Clearly state the project's goal. The project's goal in this instance is to evaluate Village Volvo's competitiveness. When considering a new service delivery system for the first time, QFD may also be employed.
2. Ascertain client expectations. Determine the client group that needs to have their expectations met based on the project's goal. Owners of Volvo vehicles that need non-routine maintenance are the target customer segment for Village Volvo. Interviews, focus groups, or questionnaires may be used to elicit customer expectations. We shall define client expectations in this case using the five elements of service quality. These rows make up the house of quality. Customer expectations in more complex QFD projects are broken down into primary, secondary, and tertiary levels of detail. For instance, the primary expectation of "reliability" could be further specified with "accuracy" at the secondary level and "correct problem diagnosed" as the tertiary level of detail [7]–[9].
3. Specify the components of the service. The service components that management may change to meet customer expectations are included in the columns of the house of quality matrix. We have chosen education, attitudes, ability, knowledge, and apparatus for Village Volvo.
4. Take note of how closely the service aspects are related to one another. The roof of the "house of quality" offers a chance to observe the degree of connection between related service aspects. Three degrees of connection strength are indicated by the following symbols: * for strong, • for medium, and for weak. As you may anticipate, we find a significant connection between training and attitudes. Taking note of these connections between the aspects may provide helpful areas of leverage to improve service quality.
5. Take note of the link between client expectations and service components. Numbers ranging from 0 to 9 are used in the matrix's body to represent the strength of the relationship between a service element and the appropriate customer expectation. These figures would come after a discussion by the project team on how different service components influence the company's ability to achieve certain customer expectations.
6. Weighing the components of the service. This action is conducted to gauge the value of a customer's evaluation of the service component. A list of the relative significance of each customer expectation is located in the chimney of the house of quality. These weights, which are given on a scale from 1 to 9, represent the relative significance that consumers attach to each of their expectations and might be discovered via a customer survey. A weighted score for each service element will be determined by multiplying the relative relevance by the strength of the link number in the matrix's main body. For instance, the training component's weighted score would be + + + + = 127. The weighted scores serve as a gauge of how important each service component is to meeting customers' demands and are recorded in the basement of the house of quality. But since they rely on unreliable estimations of relative significance and connection scores, these weighted findings should be used with care and common sense.
7. Service element upgrade difficulty score. The rating of how tough it is to improve each service aspect is located in the basement of the home, with 1 being the most difficult. Due of their large capital needs, capacity and equipment are ranked highly. This exercise shows that even when consumers give a service aspect a high rating, the company may not be able to provide it.
8. A competitive analysis. To compare the service that consumers experience at the Volvo dealer to that at Village Volvo, a study of the Volvo dealer is conducted. To the right of

the matrix is a plot showing the results of a customer survey using a five-point scale. The degree of each service aspect is compared relative to one another at the bottom of the matrix based on the dealer's expertise. The competitive strengths and disadvantages of Village Volvo will be evaluated using this information.

9. Goal-setting and strategic assessment. Village Volvo may identify certain strengths and weaknesses in its strategic position in relation to the Volvo dealer by looking at the finished house of quality. Customers are satisfied with it overall, with the exception of reactivity. However, as these statistics were gathered from a poll of Village Volvo customers and were therefore not a surprise, this conclusion must be considered with care. The weighted ratings and comparison of service components with the Volvo dealer reveal several potential routes for service enhancement. Village Volvo has an advantage when it comes to attitudes and knowledge, but there may be an issue with capacity, training, and equipment. provided the high weighted score provided to training, it may be appropriate to make investing in training a top priority. Additionally, leverage would be attained as a result of training's interactions with attitudes, ability, and equipment, which range from strong to weak. The training improvement difficulty rating is fourth out of five [10].

CONCLUSION

The last quality is tangibles, which encompasses the outward signs and appearance connected to the provision of the service. Facilities, tools, and other physical indications are examples of tangibles that influence how customers perceive the quality of a service. The quality of the total customer experience is improved by presenting an aesthetically pleasing and well-kept setting. Finally, it should be noted that service quality is a complex construct that includes dependability, responsiveness, assurance, empathy, and tangibles. Businesses that place a high priority on these traits may increase customer happiness, foster brand loyalty, and stand out from rivals. Service providers may build solid connections with clients and find long-term success in today's fiercely competitive service-oriented marketplaces by comprehending and consistently delivering on these aspects.

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CHAPTER 11

GUIDELINES FOR MANAGING WAITING LINES

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ABSTRACT:

A walk-through audit entails physically watching and checking the many steps and activities involved in a business or operational process as part of a thorough review. This abstract examines the crucial actions and factors involved in developing a walk-through audit, leveraging knowledge from both previous research and actual experience. Defining the audit's scope and goals is the first step in developing a walk-through audit. This entails selecting the precise procedure or region that has to be audited, outlining the audit's goals, and choosing the intended results. Clear goals aid in concentrating the audit and guarantee that pertinent areas are completely evaluated. The second stage is to get acquainted with the audited procedure. Studying any paperwork that is readily accessible, such as standard operating procedures, process flows, or guidelines, is part of this. Auditors may better understand the process' anticipated flow, inputs, outputs, and critical control points by having a prior understanding of it. The walk-through audit planning is the third phase. This include deciding on the audit technique, selecting the best audit team, and setting a deadline. Planning makes ensuring that resources are distributed wisely and that the audit can be carried out properly. The actual walk-through procedure is the fourth phase. The auditing process is seen physically by the auditors, who record each action, interaction, and stage. If further information is required, they may interrogate and interview anyone involved. For further analysis, observations and results are meticulously documented.

KEYWORDS:

Audit, Hospital, Quality, Recovery, Services.

INTRODUCTION

From the start to the finish of the encounter, service delivery should meet consumer expectations. As a participant in the service process, the customer's perceptions of the quality of the service are impacted by a variety of observations. An environmental audit might be a proactive management technique for the methodical assessment of a client's opinion on the service provided. A walk-through audit is a survey that puts the needs of the consumer first. Such a walk-through audit was created for full-service sit-down restaurants by Fitzsimmons and Maurer. Questions covering all aspects of eating in a restaurant made up the audit. The questions cover everything from entering the restaurant from the parking lot to being welcomed as you enter, waiting for a table, sitting down, ordering meals and beverages, getting them and ultimately receiving the bill. Nine categories of factors are included in the questions: upkeep items, one-on-one service, waiting, table and place settings, atmosphere, meal presentation, bill presentation, marketing and suggestive selling, and tipping. The whole consumer experience is therefore tracked from start to finish. The WtA, in contrast to the quick and general customer satisfaction survey, is focused on the specifics of the service delivery process in an attempt to identify areas that may be improved

[1]–[3]. Because consumers often pick up on signs that staff members and managers may miss, the walk-through audit provides a chance to assess the customer experience. There isn't a service design that is intrinsically better. Instead, there are designs that are dependable and let clients know what kind of service to anticipate from them. Giving the client verbal, contextual, and sensory signals that enhance the experience and promote return business is part of providing tangibility in a service. The characteristics of a walk-through audit are contrasted with those of a customer satisfaction survey.

The creation of a flowchart of client interactions with the service system is the first stage in building a WtA. Be aware that the questionnaire is divided into five main categories related to the service delivery process. A lot of remarks are made about observations that a client might make inside each segment. Instead of being inquiries, the assertions must be written as declarative sentences. The customer impression score is calculated using a five-point Likert scale. This WtA serves as an example of the inclusion of additional questions of importance to management, such as "Where did you hear about the event," to assess the success of advertising. A final area for "comments" that may provide consumer insights not included in the requested questions is also helpful. The WtA should be no longer than two pages printed back-to-back in order to prevent overwhelming the customer.

The WtA may be given in a number of ways, but the best way is in person right after the service experience. Giving the consumer a gift voucher or discount on a subsequent visit has had a major impact on engagement. It is important to take into account survey design considerations like sample size and stratifying the sample to poll various client categories.

Utilising A Walk-Through Audit as A Diagnostic Tool

The walk-through audit may be a helpful diagnostic tool for management to assess the discrepancies in perception of the service delivery system between customers and managers. Customers are more aware of minor changes than managers since they visit a location less often and are thus less likely to notice progressive degradation of the supporting facility than managers who are more likely to view the facility every day. Employees and supervisors alike may not detect a decline in the quality of customer service.

The same audit of the Helsinki Museum of Art and Design that was offered to consumers was also given to managers and staff members to test this use of a WtA. The average replies from the three groups for each audit issue. The disparities in management, employee, and customer views of service are seen in this graph. Due to the staff' extensive familiarity with the displays, some of the gaps, such as "There was enough information about the objects," are not unexpected. Other gaps, such as "It was easy to get additional information from the staff" and "The staff helping you is friendly," indicate that some modifications are necessary. It's fascinating to see how management and employee perspectives differed when it came to statements like "The explanations provided on the objects were clear" and "There is enough opportunity for interaction with the displayed objects." Employees agreed with the statements more than consumers did in both instances, while management had the least amount of agreement.

Achieving Service Quality Customers find it challenging to assess services in advance. They are intangible and consumed concurrently with production, as we have previously stated. The service manager is faced with a challenge since, unlike in manufacturing, there is no way to intervene during a quality-inspection process between the customer and the contact person.

Cost of Quality the adage "let the buyer beware" or caveat emptor is no longer applicable. Impersonal service, subpar goods, and broken promises all have a cost, as American corporations learned in the late 1980s and early 1990s. The major role that liability issues and insurance play in practically every service conceivable today is a fairly obvious illustration of this fact. Bankruptcy might result from poor quality. When poisonous botulinum germs were discovered in a gourmet soup manufacturer's vichyssoise, for instance, the firm was compelled to close its doors. Automobile recall announcements to fix flaws are also rather prevalent.

What options does the client of a defective service have? Products may be returned, swapped, or mended. Legal action! The potential of malpractice litigation does increase a doctor's feeling of duty to the patient, even if there have undoubtedly been some instances of legal system misuse. Medical malpractice lawsuits are known for their hefty payouts. A responsible doctor may spend extra time during an examination, seek out further training, or refrain from conducting an operation for which he or she is incompetent under the possibility of a negligence lawsuit. Unfortunately, the expense of treatment may rise without any improvement in quality, as shown by the numerous assertions made by doctors that further testing is required to defend against prospective malpractice lawsuits. No service is exempt from legal consequences. For instance, when a visitor was raped in her room, a Las Vegas hotel was sued for failing to provide enough protection. If a taxpayer's obligation is underestimated due to the preparer's carelessness or disdain for Internal Revenue Service laws and regulations, they may be subject to fines of up to \$500 per return.

Joseph M. Juran, a renowned quality specialist, has promoted the use of a cost-of-quality accounting system to persuade senior management that quality concerns must be addressed. Internal failure costs, external failure costs, detection costs, and preventative costs are the four kinds of expenses he identified. According to Juran, the combined costs of internal and external failure in the majority of manufacturing organisations accounted for between 50 and 80 percent of the entire cost of quality. He thus argued that greater attention should be given to prevention in order to reduce this overall cost. It has been suggested that \$1 spent on prevention is worth \$100 in expenditures for detection and \$10,000 in costs for failure.

With the use of a banking example, we modified Juran's cost-of-quality methodology for use by service businesses in. Recruitment and selection of service personnel are seen as measures to prevent low quality in the preventive debate. Hiring contact workers with the innate instincts required to provide excellent customer service might arise from identifying individuals with the right attitudes and interpersonal abilities. Inspection is part of the detection row, although it is often not practicable outside of a service's back-office activities.

DISCUSSION

Service is an experience for the consumer, so any missteps become tales they may share with others. Service managers need to understand that unsatisfied customers will tell others about their bad experience, which will cause a large loss of future business in addition to their taking their business elsewhere.

Control of Statistical Processes

A service's performance is often assessed using key indicators. For instance, the Scholastic Aptitude Test results of a high school's pupils are used to assess the institution's educational

success. The crime rate is used to evaluate the success of a police department's crime-prevention programme, much as the accuracy of a bank teller's end-of-day balances is used to evaluate their work.

What happens if the service process doesn't function as it should? In most cases, an investigation is carried out to pinpoint the issue's root cause and recommend a course of action; nonetheless, performance differences may be the consequence of chance events and lack a clear reason. The decision-maker wants to prevent the failure costs associated with subpar service and identify actual service performance decline. On the other hand, it is best to refrain from altering a functioning system needlessly. As a result, ensuring quality involves two different categories of risks. To help the wounded person be identified, these dangers have names. A Type I mistake, which is the producer's risk, occurs when a process is seen to be out of control when it is really operating as intended. It is at the risk of the consumer when a process is assumed to be operating well when it is really out of control. To ascertain if the process is still under control, the average values of a performance metric are plotted across time in a visual representation known as a control chart. An X-chart used to track emergency ambulance response time. This graph, which shows the mean reaction time on a daily basis, allows performance to be checked for exceptional departures from the norm. The process is said to be out of control and the system requires attention when a measurement is beyond the control limits, that is, exceeds the upper control limit or falls below the lower control limit. The first seven days in our ambulance example indicate the anticipated variance around the mean of all observations within the control boundaries. But on day 10, our observation surpasses the UCL, which is quite rare and necessitates a root-cause examination. Making a control chart is comparable to calculating a confidence interval for a sample's mean. Recall from statistics that the central-limit theorem states that sample means are typically distributed regularly. The normal distribution lies within 3 standard deviations of the mean in 99.7% of cases, according to conventional normal tables. The mean and standard deviation for a system performance metric are calculated using representative historical data. A 99.7% confidence interval for the mean of the performance metric is then built using these characteristics. If they do not, we draw the conclusion that the process has changed and the real mean has moved. We anticipate that future sample means that are randomly selected will fall within this confidence range [4]–[6].

The following procedures may be used to create and use a quality-control chart:

1. Select a performance indicator for the service system.
2. Compile historical data that is representative so that the population mean and variance estimates for the system performance measure may be calculated.
3. Select a sample size and compute the 3 standard deviation control limits using the population mean and variance estimations.
4. Create a graph of the control chart showing the sample mean values over time.

Plot the sample means that were chosen at random on the graph and analyse the outcomes as follows:

Process is in Charge

Absolute Service Warranty

A warranty to ensure a product's functionality is assumed whenever you purchase it, but what about one to ensure a service? Impossible! Contrary to popular belief, service assurances like the one includes the following five crucial characteristics:

Unconditional: Customer satisfaction is guaranteed without conditions or restrictions. For instance, the Maine-based mail-order business L. L. Bean welcomes all returns without hesitation and offers a replacement, refund, or credit.

Simple to convey and comprehend: Customers should be able to quantify exactly what they may anticipate from a promise. Bennigan's, for instance, guarantees that diners will get a complimentary meal if their lunches are not delivered within 15 minutes.

Meaningful: The consumer should value the assurance both financially and in terms of services. Because its consumers think a refund is more fair than a free pizza, Domino's Pizza promises that if an order is not delivered within 30 minutes, the client will get \$3 off rather than a free pizza.

Simple to use: It shouldn't be necessary to harass a disgruntled consumer with papers to fill out or letters to write in order to claim a guarantee. A toll-free call to an agent is all that is required to confirm a cheaper cost and get a refund through Cititravel, a service of Citibank, which guarantees the lowest fares or a refund of the difference.

Simple To Gather: The finest guarantees, as shown by Domino's Pizza and Bennigan's, are settled right away.

The commercial value of a service guarantee is clear. More importantly, the service guarantee may change the definition of service for a sector by establishing high criteria. For instance, Federal Express' overnight delivery promise helped to define small-parcel shipping. The following are some ways that a service guarantee fosters organisational effectiveness:

1. **Puts the consumer first:** A promise compels a business to pinpoint its clients' expectations. British Airways conducted a poll of its customers and discovered that they evaluated its customer service on four criteria: concern and care, initiative, problem-solving, and to the airline's surprise recovery when things go wrong.
2. **Defines precise norms:** A defined standard for the organisation is also established by a precise, unambiguous assurance for the client. All of Federal Express's personnel are held accountable by the company's promise to deliver packages "absolutely positively by 10:30 AM."
3. **Ensures feedback:** Customers that make use of a guarantee provide crucial data for quality evaluation. Customers who are not happy now have a motivation to complain and attract management's attention. In order to gauge customer satisfaction, Manpower Inc., a temporary employment service, calls the client after the first day.
4. **Encourages comprehension of the service delivery model:** Managers must determine the system's potential failure spots and the extent to which they can be managed before making a promise. Florida-based exterminator Burger Bug Killers, Inc. won't guarantee or take on a project unless the customer complies with suggested facility improvements, such closing doors and windows to prevent pest entry. To guarantee that all shipments would be carried to Memphis in the evening for sorting and flown out that same night for delivery by 10:30 the following morning, Federal Express devised a hub-and-spoke network.

5. **Promotes client loyalty:** A guarantee lowers the risk for the consumer, clarifies expectations, and increases market share by keeping unhappy customers from defecting to the competition.

The data in Service Recovery the actions of unsatisfied customers imply that prompt resolution of service failures is a key strategy for building long-term customer loyalty. Due to the fact that clients are involved in the service delivery process, a proactive employee skilled in service recovery procedures may convert a potential catastrophe into a devoted client. By giving frontline employees the freedom to "make things right," a service failure may be transformed into a service joy. For instance, when a flight full of tense passengers is delayed due to a small technical issue, it's time to provide free refreshments. The tale of a Federal Express worker who rented a helicopter to fix a fallen phone connection during a blizzard is one of the most heroic actions that become legendary. The costs associated with achieving a recovery are "pennies on the dollar" in comparison to the potential negative "word-of-mouth" tales that have been positively spun about how an employee went above and beyond to assist a client. The first line of defence against defections and "poor word-of-mouth" should be training staff on service recovery strategies.

The all-inclusive resort Club Med serves as an example of the service recovery structure for visitors who wish to focus only on unwinding and having fun. Because of prior experience or word-of-mouth, expectations are high during the pre-recovery period. Storms, however, have the potential to spoil plans for lounging on the beach and are an uncontrolled variable for Club Med. To ensure that the customers have a pleasant experience despite the bad weather, the personnel must take initiative during the first recovery period. There are many tales of people coming up with inventive solutions to bad weather, such planning group activities and theatrical performances. The staff's capacity to provide visitors an unforgettable experience is referred to as "the Club Med magic." During the follow-up phase, visitors are given souvenirs and photos from their trip, and in extreme circumstances, a reduced offer to return the following year.

Various Methods for Service Recovery

Case-by-case, systematic response, early intervention, and substitute service recovery are the four fundamental methods to service recovery.

1. The case-by-case method responds to every customer's concern specifically. This low-cost strategy is simple to use, but it could be careless. For instance, more "reasonable" complainers seldom get satisfying solutions, whereas the more persistent or aggressive complainers often do. This method's haphazardness may give the impression that it is unjust.
2. The systematic-response method employs a methodology to deal with client concerns. Because it is a planned reaction based on the identification of crucial failure spots and the earlier establishment of acceptable recovery criteria, it is more dependable than the case-by-case method. This strategy may be quite useful since it delivers a constant and prompt response, so long as the response criteria are consistently updated.
3. An early intervention strategy aims to intervene and address service-process issues before they have an impact on the customer, adding another element to the systematic response strategy. For instance, a shipper who discovers that a truck breakdown is delaying a cargo may decide to contact the client right away so that the client may make alternate preparations if required.

4. An alternative strategy takes advantage of a rival's inability to acquire the competitor's client by offering a different service recovery. The competing company may sometimes support this strategy. For instance, a front desk agent in an overbooked hotel can direct a guest to a competing establishment. If the competing hotel can provide prompt and high-quality service, it could be able to take advantage of the situation. This strategy is difficult to put into practise since details concerning a competitor's service flaws are often kept under lock and key [7]–[9].

Policy for Handling Complaints

A customer's complaint ought to be considered a gift. A disgruntled client is volunteering her time to alert the business to a mistake because she cares. This chance should be taken advantage of not just to please the consumer but also to build a rapport with someone who will promote the company. All staff who interact with customers should get training on a complaint-handling policy.

Stages in the Development of Quality

The most crucial problems in incorporating quality into the provision of services were examined in this chapter. It is helpful to have a methodical approach to the creation of quality assurance in service organisations, even if certain components of it may happen concurrently. The progression of quality development is summarised by the service quality ladder. Organisations often start here when making their initial efforts to resolve quality issues, which is why inspection is shown as the first rung. Because quality must now be acknowledged as a fundamental customer demand that must be included into the architecture of the service delivery process, quality function deployment is shown as the top rung.

Hospital Bronson Methodist

Regional hospital serving southwest Michigan, Bronson Methodist Hospital, stands out among similar facilities. The American Hospital Association, HealthGrades, the nation's top health care rating organisation, the Malcolm Baldrige National Quality Programme, the U.S. Department of Health and Human Services, Fortune magazine, and, most importantly, its patients all agree. This cutting-edge hospital combines its commitment to delivering exceptional healthcare with its nursing philosophy, three business strategies, and aim to become a national leader in the provision of healthcare. In several assessments of the quality of treatment, Bronson is routinely identified as a "best practise" healthcare organisation. For its heart attack and hip replacement programmes, for instance, the hospital got the maximum possible 5-star rating on a national scale.

According to a Gallup survey, patient satisfaction with inpatients, outpatient surgeries, and outpatient tests is in the 97th percentile or above. This outstanding accomplishment is the result of numerous initiatives that aimed to focus on patient needs, including patient surveys, post-discharge phone calls, focus groups, community surveys, hospital "rounds" led by BMH leaders and patient-relations staff members, and a significant commitment to employee support.

The customer service standards and expectations programme that BMH maintains outlines each employee's personal obligation to offer each patient with great treatment. The hospital, for instance, has a structured strategy to grow and maintain its personnel that includes initiatives like sponsoring continuing education for the employee and providing higher education scholarships

to employee children. Employees are seen as significant resources. Employees may also take use of wellness perks that are reimbursable, such as personal trainers, massage treatment, weight-loss programmes, and smoking cessation. Because of the hospital's culture of employee support, staff turnover rates are much lower than average. For instance, in a recent reporting period, the rate of empty jobs for registered nurses was less than half of what is considered to be best practise nationally [10].

In addition to setting the standard for top-notch healthcare, Bronson is a national leader in its dedication to the environment and the local community. The hospital has won an environmental leadership award for decreasing waste and pollution, and hospital workers donate an extraordinary amount of time to community health-related needs. Consumers are the final arbiters of a service's value when we started our investigation into quality concerns in services. Five key criteria that consumers use to assess service quality have been established by market researchers. Customers utilise those factors to evaluate products and services, and their evaluations are generally based on a comparison between their expectations for the desired service and their views of the service received. The numerous kinds of gaps that might develop when consumers' expectations do not match their views of the service were then examined.

CONCLUSION

The issue of gauging service quality was then addressed. Two helpful methods that may be used to evaluate the quality of a range of services are the walk-through audit and SERVQUAL. We highlighted the significance of "designing in" quality and looked at Taguchi's robustness idea, poka-yoke fail-safe strategies, and quality function deployment techniques for including customer needs in design for quality. Failure costs, detection costs, and preventive costs are the three types of quality expenses. We provided an example of how statistical process control may be used in service operations to reduce excessive failure costs. Finally, we looked at the idea of service recovery and unconditional assurance programmes since service failures do happen.

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CHAPTER 12

SUPPORTING PROCESS AND FACILITY FLOWS

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ABSTRACT:

Supporting process and facility flows is essential to increasing operational effectiveness and promoting efficient business operations. The relevance, difficulties, and solutions related to supporting process and facility flows are examined in this abstract, which also includes industry best practises. The effective design and layout of facilities is the first important factor in enabling process and facility flows. The flow of materials, tools, and people are all simplified in a well-planned facility, reducing bottlenecks and delays. Workflow patterns, physical configuration, ergonomics, and safety standards are just a few examples of the aspects that must be carefully taken into account. The efficient management of process flows is the second factor. Organisations need to map and analyse their processes to find areas for improvement and get rid of redundant or superfluous stages. To increase production, cut waste, and increase overall efficiency, process flow optimisation entails simplifying processes, standardising procedures, and putting lean concepts into practise. Automation and technological integration make up the third factor. Utilising cutting-edge technology, such robots, the Internet of Things (IoT), and artificial intelligence (AI), may improve facility flows and supporting processes. Organisations may increase accuracy, speed, and responsiveness in their operations by automating repetitive processes, monitoring operations in real-time, and making data-driven decisions.

KEYWORDS:

Consumer, Facility, Organization, Planning, Service.

INTRODUCTION

Planning and training for the personnel make up the fourth factor. Organisations must make sure they have the appropriate number of competent workers with the required knowledge to support facility and process flows efficiently. In order to increase employee capacities and flexibility, workforce planning include analysing personnel requirements, creating training programmes, and promoting a culture of continuous learning. Supply chain management makes up the sixth element. For supporting process and facility flows, effective coordination and communication with suppliers, vendors, and partners are essential. To guarantee the timely availability of resources and commodities, organisations must build strong supply chain networks, put into place efficient inventory management systems, and optimise transportation and distribution methods. Contingency planning and risk management are the sixth and seventh aspects. The potential for risks and disruptions, such as equipment failure, supplier interruptions, and natural catastrophes, that might affect supporting process and facility flows should be identified by organisations. Risks may be reduced and the effects of unanticipated occurrences can be lessened by creating backup systems, putting preventative maintenance programmes into place, and developing contingency plans [1]–[3].

The smallest variations in facility design matter. Take the competition between Lowe's and Home Depot, two retailers that specialise in home renovation. Home Depot, the older of the two, gives off the impression that you should "roll up your sleeves and let's get to it" since the aisles are crowded with shelves of goods that reach the ceiling, the lighting is industrial, and there are often large queues at the checkout counters. Lowe's, the newcomer, first imitated its competitor, but it has recently adopted a different strategy. Today's Lowe's has broad aisles, bright lighting, and stuff that is arranged to encourage browsing and generate plenty of project ideas. Due to its recent sales increase of 18.1%, which beats Home Depot's growth of 11.3%, Lowe's plan looks to be successful.

The usage of facility design by Lowe's to set itself apart from its rivals has been a success. It is quite typical to include facility design into a differentiating strategy. For instance, the "golden arches" of McDonald's signify a ham-burger lunch, while the A-frame construction and blue roof of IHOP draw tourists to a pancake breakfast. An essential component of the overall cost leadership approach is the use of standardised, or "formula," facility designs. Major fuel merchants have improved the design of their service stations to make construction easier, save costs, and provide a recognisable brand that will draw consumers.

For theme bars and restaurants, facility design is essential to the focus approach of focusing on a certain market and establishing a distinctive atmosphere. However, tradition still rules in retail banking, with the exception of Banc One, an innovative bank with headquarters in Columbus, Ohio. With glass atriums, "boutiques" that provide specialised services, signs of blue neon, pleasant lounging spaces, and freshly brewed coffee, Banc One has built its branches to resemble mini-shopping malls more than traditional banks. Banc One places a strong emphasis on the community, and some of its locations are open on Saturdays and Sundays.

Sectional Preview

The chapter starts out by discussing environmental psychology as it relates to facility design and layout to prevent consumer confusion and annoyance when visiting an unfamiliar building. The notion behind the idea of servicescapes is that both consumers and employees' behaviour and perceptions of the service are influenced by the physical environment. Concerns with facility design are addressed in relation to the service's goals, space needs, adaptability, aesthetics, and surroundings. Traffic flow, space planning, and the desire to reduce unnecessary travel are all taken into account while discussing facility layout. A mortgage service that evaluates each of the process analysis terms serves as an illustration of how the industrial engineer idea of process flow analysis is modified for service operations. It is shown that the conventional product and process layouts from manufacturing have service counterparts, and that these counterparts may be investigated using relative location analysis and assembly-line balance approaches.

Psychology of the Environment and Orientation

Services Capes

The initial behavioural need of a person when entering a new environment is orientation. It asks both questions on function orientation and place orientation. Customers gain control when they can utilise spatial clues and prior knowledge to determine where they are, where they should go, and what they need to do when they enter a physical space. In the absence of spatial clues or when prior experience cannot be drawn upon to prevent disorientation, anxiety and a feeling of

helplessness may develop. According to Richard E. Wener, a facility design that incorporates prior experience, design legibility, and orientation aids might lessen the causes of confusion in service environments. Franchised services have successfully eliminated the concern of confusion using formula facilities so that clients know precisely what to do. Holiday Inn took this idea a step further by claiming that visitors to any of its sites won't encounter any surprises, capitalising on the demand for familiarity to draw in repeat customers.

DISCUSSION

Facilities that enable consumers to look both into and through the area may also help with orientation. An entry atrium is often used in bank and hotel layouts so that the whole area can be seen and conceptualised at one look. Customers may also watch other people's behaviour for clues thanks to this arrangement. If appropriately aligned with the user's viewpoint and filled with environmental features, orientation aids and signs like "You Are Here" maps may also be helpful. Points of reference may be provided by plants and artwork that are placed carefully. A great technique to help tourists and encourage smooth movement is to utilise color-coded underground paths with corresponding color-coded connecting arrows.

The supporting service facility's servicescape its built environment influences both customer and staff behaviour and should be planned with the service idea in mind. According to the participants in the service environment and the level of complexity of the servicescape, a typology of servicescapes is arranged. Since there are no staff present, the servicescape of a self-service business is crucial in directing consumer behaviour via the use of signs and user-friendly interface design. The main physical design goals for remote services are staff happiness, motivation, and operational efficiency since clients do not physically visit the facility. However, professional service offices like those of solicitors and doctors should exude expertise and authority. The most difficult services to provide are interpersonal ones since the servicescape should encourage social interaction between customers and workers as well as among consumers. For instance, the servicescape at Disneyland is renowned for providing both a stage and a dream experience for visitors. Take a look at the images below of two restaurant servicescapes. Keep in mind how certain expectations are communicated for both customers and workers by the table arrangements, furniture, room design, and even customer apparel.

Servicescaping Behaviours

The service facility of an organisation is a reflection of its ideals and plays a key role in carrying out its strategy. A building may convey a message to both its clients and staff without using words. For instance, the structure could convey modernism and progressivism or other qualities like comfort, safety, and convenience. Since this is where services are provided, facility design should obviously complement the institution's aims and be thoughtful.

Employees' or customers' psychological reactions to the servicescape take one of two forms: approach or avoidance. Arousal-avoiders prefer lesser levels of stimulus, while arousal-seekers like and seek out higher levels of stimulation. Personal characteristics and psychological elements cognitive, emotional, and physiological—modify the internal reaction. The servicescape is intended to encourage social contact between clients and staff.

A well-designed service environment will promote an approachable behaviour in both employees and clients. The design of the service facility may purposefully shape participant behavior to

support the organization's aims since the physical environment triggers an emotional response and impacts behavior. As a result, uncomfortable settings that are simultaneously highly arousing should be avoided [4]–[6].

Services Capes' Environmental Aspects

All the objective aspects that the business may influence to improve employee and customer actions and impressions of the service are included in the dimensions of the physical environment surrounds. Although each of these aspects will be explored separately, it is vital to understand that individuals react to their surroundings holistically; in other words, the sum of all the effects on each of our senses determines how we perceive the services cape.

Environmental Factors

All five of our senses are impacted by the world around us, including the temperature, lighting, noise, music, and smell. For instance, the tempo of the music might influence a customer's shopping speed, duration of stay, and financial expenditure. Consider a convenience shop that effectively used "elevator music" to shoo away loitering teens and deter paying consumers from approaching the establishment. An open door policy allows a cookie business in a crowded mall to welcome guests with the aroma of freshly made cookies. All of these elements, including the color of the environment, have an impact on an employee's productivity and work happiness.

Dimensional Design and Usability

The placement of furniture and equipment in relation to one another creates a visually appealing and practical environment for service delivery. For both staff and consumers, this environment may communicate either order and efficiency or chaos and unpredictability. It's crucial for self-service activities that equipment be functioning or simple to use so that clients may work independently. Fast-food establishments deliberately construct their spaces so as to visually express the acceptable diner activities. Self-serve drink dispensers are positioned between the counter and the tables, menus are displayed above the cash registers, and trash bins are placed close to the exits.

Artefacts, Signs, and Symbols

Many objects in the physical world act as signals that communicate accepted standards of behaviour, either explicitly or implicitly. Explicit signs like "no smoking" convey the laws of conduct, while "recycle bins" promote ethical behaviour. A visitor's overall visual impression and an employee's enjoyment of their workspace may both be influenced by the quality of the furniture, artwork, and floor covering. Interior design may help professional services convey expertise and improve their professional image to clients. Restaurants use symbols like tablecloths, artefacts like antiques or porcelain, and signage like images of famous diners to advertise full service and premium pricing. Studies of faculty offices show that the arrangement of the desks, the choice of wall decorations, and the orderliness of the office all have an impact on students' perceptions of the individual who works there.

The physical environment may play a number of strategic functions in support of the service notion, according to our discussion of servicescapes. The servicescape provides a visual metaphor for a company's offering in the first place. Similar to how a product is packaged, the environmental aspects of the servicescape produce a package that provides an impression

indicating relative quality, prospective utilisation, and target market group. Consider the preceding comparison between Home Depot and Lowe's as an example. A trip to Home Depot conveys a male picture of the construction sector with its orange hues, bare flooring, industrial lighting, and overall messy appearance. However, Lowe's portrays a more female-friendly image for the home improvement client with its soothing blues, neat aisles, and nicely placed items.

Second, the servicescape might make it easier to provide the service by making it easier or harder for consumers and staff to do their respective tasks. In a physical environment, the layout, signs, and equipment have an influence on the facility's user friendliness and its capacity to provide clients with effective service. Consider how a quality Web site's servicescape, for instance, enables screen-to-face contact and produces a satisfying user experience in the virtual world.

At the crossroads of contemporary life, the American Institute of Graphic Arts (AIGA), a professional organisation for design, and the U.S. Department of Transportation have created a collection of passenger/pedestrian symbols that are developed and used globally. Third, the servicescape may promote customer social engagement. For instance, the arrangement of seats around tables in a waiting area promotes social contact and helps the time pass more leisurely.

The physical environment may also be used in a subtle way to direct employee behaviour. The staff entrance was given a lot of consideration in the design of the Mid-Columbia Medical Centre in Columbia River, Oregon, for instance. A unique entry for employees only was created as an atrium fit for a five star hotel. The workplace was decorated with filled seats, potted plants, artwork, and uplifting music for the employees' welcome, which included a breakfast buffet. The design was an intentional effort to encourage staff to leave personal concerns and problems at the door and to promote a positive attitude for the day's work. The layout of the facility may have a direct impact on how services are provided. For instance, a restaurant with poor ventilation for diners who do not smoke may lose numerous customers. Alternately, a gym with excellent wheelchair access may be able to expand its offerings to accommodate a new audience.

The supporting facilities element of the service package is represented through design and layout. Together, they affect a service facility's utilisation and, sometimes, whether it is utilised at all. Think about Toronto's Shuldice Hospital once again. Its effectiveness in treating inguinal hernias is largely due to the meticulous facility planning and layout. For instance, operating rooms are arranged in groups so that surgeons may quickly consult one another while doing operations. Early ambulation speeds up recovery, thus the hospital is built with plenty of lovely locations for people to stroll and even climb a few stairs. Meals are exclusively provided in communal dining areas rather in patient rooms, which necessitates extra walking but also provides an opportunity for patients to gather and "compare notes." Patient rooms are practical and pleasant, but they lack "extras" like televisions that would tempt patients to "lie around."

Other design and layout elements may be "urgent." Think about how few women's restrooms there are normally in most public locations, particularly when large-scale entertainment is taking place. In the interval of your next play or concert, time how long it takes for each individual male and female to use the loo. Do you see any indications that the structure was constructed with "potty parity" in mind? Additionally, tally the number of male and female restrooms in your school facility. There are probably equal numbers of each gender, but this does not guarantee equitable access.

It is obvious that attractive design and layout improve the service, bringing in more clients, making them feel more at ease, and assuring their safety. The implicit service component of the service package, in particular, characteristics like privacy and security, environment, and feeling of well-being, is impacted by facility design as well. The nature and goals of the service organisation, land availability and space needs, adaptability, security, aesthetic considerations, as well as the community and environment, all have an impact on design [7]–[9].

Characteristics and Goals of Service Organisations

The dimensions of its design should be determined by the nature of the core service. For instance, a fire station needs a building big enough to hold all of its trucks, staff, and maintenance tools. Any kind of vault must be able to fit in a bank. All medical offices, regardless of their size or form, must provide some level of patient privacy.

But design has far more potential to define the service than just these basic criteria. As in the instance of the McDonald's arches or the blue roof of IHOP, it may lead to instant identification. A hint regarding the type of the service inside may also be given by the outside design. A funeral home should have well-kept gardens, recently painted or marble columns, and maybe a fountain as well. However, a school could have brightly coloured tiles on its exterior and undoubtedly a playground or sports field close by. It's also crucial that the design be appropriate. You could build a petrol station out of prefabricated, brilliantly coloured sheet metal, but would you give your money to a bank that had a temporary branch located in a caravan on wheels?

Availability of Land and Space Needs

The property that is available for a service facility often has a lot of restrictions, including price, zoning laws, and real area. All these restrictions must be taken into account in good design. Buildings can only be built upward in an urban environment where land is scarce, and organisations often need to apply tremendous innovation and ingenuity in their designs to make optimal use of a relatively little area. For instance, McDonald's has added a loft-style dining area on the second story in various metropolitan locations.

Larger, more inexpensive land lots are typically available in rural and suburban settings, alleviating the size limitations of urban institutions. However, many locations, particularly metropolitan ones, could have severe zoning rules limiting land use and bylaws governing the external design of buildings. Also necessary is off-street parking space. In any case, there should always be room for future growth.

Flexibility

Dynamic businesses that can adjust to changes in the kind and volume of demand are the hallmark of successful services. A service's ability to adapt relies heavily on how flexible it has been made to be. Another name for flexibility is "designing for the future." How can this building be constructed to allow for the extension of current services in the future, as well as how can we design this facility to support new and different services in the future? are possible questions to address throughout the design process. In order to meet consumer demand for drive-through window service, many of the original fast-food businesses established for walk-in traffic had to make changes to their facilities.

Because designers did not account for the enormous increase in the number of passengers travelling or the emergence of the hub-and-spoke airline network as a result of deregulation, many airports today have structural issues. As a result, travellers often have to drag their carry-on bags through a labyrinth of stairs and lengthy hallways in order to get to the boarding gate for their connecting flights. Additionally, think of the annoyance encountered by people attempting to reclaim checked luggage from a system that was created for air travellers in the 1960s!

Planning ahead may often result in financial savings. Consider a church, for instance, that is located in a growing neighbourhood but lacks the funding to construct both the sanctuary and the associated buildings it would need. A congregation may create a basic building with good architecture that can function as a temporary sanctuary but can later be quickly and affordably converted to serve as a fellowship hall, a Sunday school or even a nursery facility to satisfy the demands of an expanding neighbourhood [10].

In other cases, planning for the future could initially cost more money but will result in long-term financial savings. In fact, it may enable growth that otherwise would not be conceivable. For instance, in preparation for future expansion, communities sometimes make investments in large water and wastewater treatment facilities.

Security

Airport changes have been seen by anybody who has taken a commercial flight following the terrorist assault on the United States on September 11, 2001. The traveller may see certain security technology right away. Other security procedures at airports are less obvious to visitors. Although the use of profiling is difficult, information technology helps to provide profiles of potential terrorists. All checked baggage at American airports is required by law to be inspected, either manually by airport staff or automatically using some kind of scanner. Some airlines utilise "smart facilities" that may verify identification by scanning an individual's eyes or, more recently, magnetic ID cards to regulate admission.

Installing surveillance cameras in buildings may improve security. For instance, banks and convenience shops utilise cameras to identify potential burglars or to deter would-be criminals. "Nanny cams" and "granny cams" let parents see how their kid is being cared for at home by a babysitter. Families may even monitor the care provided to a patient in a nursing home. An additional example of a security system for a building may be seen at something as commonplace as a community pool. The pool is surrounded by a high fence, and spots surrounding the pool have shepherd's hooks and ring buoys that are easily accessible. Jails and level-four labs are two other examples of buildings modified for security; both have many layers of changes to guarantee that "bad things" don't escape.

Many retail establishments use security measures that are a little less noticeable. Think about the row of concrete "bollards" that some establishments have outside their doors, as well as the scanners and tags that are sewn into clothes to deter stealing. Also keep in mind that when more establishments get rid of their large windows that attract thefts, "window shopping" can turn into a nostalgic past time. Imagine Macy's Department Store without the seasonal windows due to the exponential increase in our desire for security.

Aesthetic Elements

Compare two outings to prosperous, high-end clothes retailers. We first visit a high-end department shop like Nordstrom's. As we walk into the women's fine dresses section, we notice the complimentary lighting, the carpeting under our feet, the space between the clothing racks, the lack of crowded dresses on the racks, and, most importantly, the extremely well-groomed salesperson who is ready to serve us right away. The fitting rooms are spacious, carpeted, and feature mirrors on three sides so you can see every element of your look. They are separated from the exhibition area. The department's whole layout is intended to exude elegance and pay close attention to our requirements.

We make a second journey to an Eddie Bauer Factory Outlet. We are met by tables stacked high with a wide variety of clothes just a few feet of the door. There are racks crammed as full as they can be with more clothes around the walls and in between the tables. All that can be seen of the floor is a network of confined passageways. When you ask for assistance, salespeople are stationed at the cash-register counters and are ready to provide it. Fitting rooms are tiny "stalls" with only one mirror that are located on the showroom floor. The store is more like a giant warehouse than a small, calm, classy place to shop, yet it nonetheless provides amazing deals in exchange for forgoing comfort and a lot of one-on-one service.

Both shops provide stylish, high-quality clothes. However, we feel extremely differently in each one, and their individual designs have had a significant impact on how we feel. It is obvious that a design's visual elements have a significant impact on consumers' perceptions and behaviours, but they also have an impact on staff members and the services they provide. Design decisions made without consideration for aesthetics may result in stern service rather than "service with a smile."

CONCLUSION

Performance evaluation and ongoing development are the last component. Key performance indicators (KPIs) must be established by organisations to track how well supporting processes and facility flows are working. Organisations may discover areas for improvement, carry out remedial measures, and promote continual optimisation by regularly evaluating performance data. In summary, supporting facility and process flows are crucial for attaining operational effectiveness and efficiency. Organisations may improve their skills and flexibility by concentrating on facility design, process optimisation, technology integration, workforce planning, supply chain management, risk mitigation, and performance assessment. Organisations may fulfil customer expectations, save costs, enhance quality, and retain a competitive advantage in today's changing business climate by putting policies in place to support efficient process and facility flows.

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