Process Optimisation Methodology and the Impact of it on Customer Experience at an Information Technology Company in South Africa

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ABSTRACT

This study investigates the impact of optimised processes on individual customer experience management (CXM) scores, and explores key metrics such as net promoter score (NPS), customer satisfaction score (CSAT), and customer effort score (CES). Employing a mixed-method approach, the research integrates quantitative surveys and qualitative insights to understand how process optimisation influences customer experience. Findings reveal that optimised processes positively affect NPS and CES ratings, enhancing customer loyalty and reducing effort. Further studies are suggested to explore potential impacts on CSAT scores. These insights contribute to customer experience and business process management (BPM), emphasising the importance of continuous improvement and customer-centric strategies for achieving higher CXM scores and driving business success.

OPSOMMING

Hierdie studie ondersoek die impak van optimale prosesse op individuele klante-ervaringsbestuur (CXM) tellings en sleutelmetrieke soos met-promoyort-telling (NPS), Klantetevredenheidstelling (CSAT), en klantinspanningstelling (CES). Deur 'n gemengde-metode benadering te gebruik, integreer die navorsing kwantitatiewe opnames en kwalitatiewe insigte om volledig te verstaan hoe prosesoptimering kliëntervaring beïnvloed. Bevindinge dui daarop dat geoptimeerde prosesse NPS- en CES-tellings positief beïnvloed, en sodoende kliëntelojaliteit versterk en moeite verminder. Verdere studies word voorgestel om potensiële impakte op CSAT-tellings te ondersoek. Hierdie insigte dra by tot kliëntervaring en besigheidsprosesbestuur (BPB), waar die belangrikheid van volgehoue verbetering en kliëntgesentreerde strategieë beklemtoon word vir die bereiking van hoër CXM-tellings en die strewe na besigheidsukses.

1. INTRODUCTION

The researcher, who is employed at a prominent information technology company in South Africa that specialises in a cutting-edge digital signing platform, explored the correlation between optimised business processes and customer experience management (CXM) scores. With a commitment to customer-centricity, the company consistently optimised its processes to enhance the overall customer experience, leveraging the researcher's extensive domain knowledge.

This research study, undertaken to shed light on the relationship between process optimisation and key CXM scores, contributed not only to the organisation's objectives, but also offered valuable insights to the wider information technology industry, seeking to elevate customer satisfaction and loyalty in the dynamic digital landscape. Prompted by customer complaints that indicated potential inefficiencies, during the researcher's tenure the company set a net promoter score (NPS) target of 46 to address identified performance gaps. However, a declining trend in NPS scores, starting in June 2022 and falling eight points below the target (as seen in Figure 1), raised concerns about meeting customer expectations.

Figure 1: Company's NPS score before the process optimisation plan was implemented

The study explored the following research objectives:
a) To ascertain the baseline levels of customer experience scores in the information technology company.
b) To formulate a comprehensive process optimisation plan that was tailored to the specific needs of the information technology company.
c) Systematically to enhance and map the relevant operational processes in alignment with the newly devised process optimisation plan.
d) To evaluate and quantify the influence of the implemented optimised processes on the customer experience scores of the company.

The research questions that arose from the research objectives were:
a) What were the initial customer experience scores in the organisation prior to the implementation of any process optimisation measures?
b) How could a comprehensive process optimisation plan be developed to align with the distinctive operational requirements and challenges of the information technology company?
c) What would be the relevant processes of the information technology company after they have been mapped and revised according to the process optimisation plan?
d) To what extent would the enhancements in operational processes, in line with the process optimisation plan, affect the customer experience scores of the company following implementation?

The study focused on difficulties, including projects running over timelines and budgets, customer unfamiliarity with new systems, and lengthy support processes. In response, the company initiated a process optimisation plan to streamline operations, reduce turnaround times, and enhance the overall customer experience. This investigation aimed to examine the impact of this plan on CXM scores, providing the company with proactive insights in order effectively to address identified performance gaps.

2. LITERATURE REVIEW

2.1. CUSTOMER EXPERIENCE MANAGEMENT SCORES

Customer experience management (CXM) involves evaluating customer interactions across physical and digital touchpoints [1]. CXM scores serve as metrics for businesses to measure overall customer loyalty, satisfaction, and experience [2]. Ensuring a positive customer experience is crucial for contemporary brands; yet assessing the effectiveness of a customer experience (CX) strategy can be difficult. The purposes of CXM scores include performance evaluation, benchmarking against industry standards or competitors, insights into customer loyalty and retention, feedback and actionability, informing decision-making and strategy, and engaging employees [3], [4], [5], [6]. By tracking CXM scores, companies can assess the effectiveness of their customer experience strategies, identify areas for improvement, and align their strategies with customer preferences [2].

Defining and improving customer experience is increasingly vital for companies because such experience has become a competitive battleground for corporate marketing. Providing a quality product does not guarantee customer satisfaction if it does not meet their specific requirements [7]. Asking clients about their feelings is essential for gauging satisfaction, and choosing the right CXM metrics, such as net promoter score (NPS), customer satisfaction score (CSAT), and customer effort score (CES), is crucial for collecting actionable data and driving improvements [8]. The identified information technology company focuses on understanding customer effort, loyalty, and satisfaction levels through these metrics [9].

2.1.1. NET PROMOTER SCORE

In 2003, Fred Reichheld introduced the NPS, which became a widely adopted metric for measuring customer loyalty [10]. Reichheld's single-question approach aimed to assess customer loyalty comprehensively by gauging the likelihood of a customer recommending a company to others [11]. A high NPS is essential for customer advocacy, driving business growth, improving retention, gaining a competitive advantage, facilitating feedback and improvement, and allowing for measurement and benchmarking against industry peers [12].

The Data and Marketing Association of Finland use a three-dimensional approach that measures willingness to recommend, the intention to buy, and remaining a customer to assess customer loyalty in its annual survey [13]. NPS, a measurable statistic, determines customer loyalty by asking respondents to rate the likelihood of their recommending a company on a scale of 0 to 10 [14]. Calculated using the percentage of promoters minus the percentage of detractors, NPS provides valuable insights into overall customer satisfaction and areas for improvement, enhancing customer loyalty and advocacy [14]. While a high NPS is crucial, it should be complemented by other metrics and feedback mechanisms for a comprehensive understanding of customer sentiment, as customer satisfaction is multi-faceted [15].

2.1.2. CUSTOMER SATISFACTION SCORE

The distinction between satisfied and loyal customers, although often blurred, reveals that, while satisfaction may lead to loyalty, it does not guarantee it. Service quality directly influences customer loyalty, with customer satisfaction playing a mediating role [16]. The origins of the customer satisfaction measurement can be traced back to Berry et al.'s 1986 research, which developed the 'confirmation/disconfirmation' theory, forming the basis for CSAT [17]. The American customer satisfaction index (ACSI), created around 1994, shaped CSAT further, providing a quantifiable measure of goods and services from the customer's perspective [18].

The CSAT metric, measured on a Likert-type scale, assesses customer satisfaction levels by asking about their overall service satisfaction. The score is calculated as the percentage of satisfied customers, providing insights into customer satisfaction levels and areas for improvement [19]. CSAT surveys serve as a valuable avenue for customer feedback, aiding in performance evaluation, service quality improvement, customer retention, benchmarking, and customer-centric decision-making [20]. Regularly monitoring CSAT scores, along with qualitative feedback and root cause analysis, is crucial for refining customer support workflows and enhancing overall product experiences [21]. CSAT scores, used in conjunction with other metrics, provide a holistic understanding of customer satisfaction, and guide organisations in consistently improving the overall customer experience [22].

2.1.3. CUSTOMER EFFORT SCORE

Numerous studies have consistently affirmed a positive correlation between customer satisfaction and service quality, although a complete understanding of its characteristics has remained elusive [23] [24]. The SERVQUAL model, proposed by Parasuraman et al. in 1988, elucidated five dimensions — Tangibility, reliability, responsiveness, assurance, and empathy — that collectively define service quality [25]. Each dimension, ranging from tangibility of services to the competence and politeness of staff, contributes to shaping the overall customer effort score (CES) [26].

CES, introduced by the Corporate Executive Board (now Gartner) in 2010, measures the level of effort that customers invest in their interactions with a company [27]. Calculated through survey responses on the ease of resolving issues or completing processes, a higher CES score indicates lower customer effort and reflects positively on customer loyalty [28]. In addition, CES scores provide insights into areas of difficulty in customer interactions, allowing businesses to streamline processes, improve customer experience, and

enhance loyalty [29]. Regularly monitoring CES contributes to continuous improvement, identifying trends, and ensuring ongoing customer satisfaction [30]. As a metric, CES serves as a valuable tool for businesses to minimise customer effort, optimise channels, and achieve a seamless customer journey [31].

2.1.4. CXM SCORES COMBINATION

The combination of CXM scores, consisting of the NPS, CSAT, and CES, provides a comprehensive understanding of the customer experience. According to Tislerova [32], no single metric is superior, as each contributes different insights to customer experience analytics.

While the NPS reflects customer loyalty effectively by measuring the likelihood of recommendation, CSAT gauges satisfaction at a transactional level, offering specific insights into touchpoint satisfaction. However, relying solely on the NPS and the CSAT might fall short in capturing the complete range of customer sentiments and actionable feedback. Javed et al.[33] suggests that a high CES is a more reliable predictor of sustained customer loyalty and positive word-of-mouth than a high CSAT. The three CXM scores collectively address different aspects of the customer journey — emotion, effectiveness, and ease — thus ensuring a holistic view of the company from the customer's perspective.

Table 1: CXM scores comparison

	NPS	CSAT	CES
Purpose	Builds customer loyalty.	Tracks support quality.	Makes it easier to be a customer.
Benefits	Tracks the loyalty of your customers and their overall view of your company.	Tracks general level of customer satisfaction and indicates aspects of service that could be improved.	Tracks the amount of effort a customer feels they had to go through.
Limitations	1. Does not indicate what to improve. 2. Not comparable as an absolute. 3. 'Saying' you would recommend and actually recommending do not correlate.	1. Only measures short-term happiness. 2. Only measures the most recent interaction or the specific interaction in question.	1. Does not give and overall picture of how the customer feels about the company.

Table 1, summarising the key elements of the NPS, CSAT, and CES, clarifies their distinct purposes, benefits, and limitations [34]. The NPS builds loyalty and tracks overall satisfaction, but lacks specific improvement insights. The CSAT monitors support quality and identifies areas for improvement, while the CES focuses on ease of customer interactions. Combining these metrics allows businesses to address the limitations of each and to maximise the benefits, providing a more nuanced and holistic understanding of the customer experience [32] [34].

2.2. PROCESS OPTIMISATION

Process optimisation plays a crucial role in enhancing organisational efficiency and achieving business goals [38]. Olayinka et al. (2024) highlight its significance in improving efficiency, productivity, and resource use, leading to cost savings and increased output [35]. Optimisation reduces the time required for tasks, providing faster turnaround times, and enhancing customer satisfaction, thereby gaining a competitive advantage [36]. In addition, optimised processes often result in cost reductions, contributing to improved profitability and financial performance [37]. Process optimisation also increases quality outcomes by standardising and controlling processes and by reducing errors, defects, and inconsistencies, ultimately enhancing customer satisfaction [39].

In addition to these benefits, optimised processes foster agility and adaptability, enabling businesses to respond quickly to market changes, customer demands, and internal requirements [40]. Botha's enhanced customer experience framework (ECEF) emphasises the role of optimised processes in delivering quality service, reducing customer effort, and ensuring consistency, thereby enhancing customer satisfaction and

loyalty [41]. Moreover, business process management (BPM) provides a continuous lifecycle for improving business processes, involving design, modelling, execution, monitoring, and optimisation [43].

Big Bang 360 outlines five advantages of business process optimisation: improved efficiency, accurate information, greater adaptability, performance monitoring and accountability, and higher quality results [42]. Five essential steps in the process optimisation journey have been identified as designing, eliminating faults, removing unnecessary steps, improving resource use, and formalising the new method [44]. For this reason, it is important to understand BPM reasoning and its full potential for successful implementation.

In conclusion, process optimisation is instrumental for businesses, contributing to their efficiency, productivity, time and cost savings, quality improvement, agility, and enhanced customer experience. By embracing continuous improvement through optimised processes, companies create customer-centric environments, leading to improved CXM scores, higher customer satisfaction, increased loyalty, and better overall business outcomes.

3. RESEARCH METHODOLOGY

In adopting the research methodology, a systematic and rigorous approach was used to address the research questions, incorporating a multifaceted 'research onion' framework. The chosen philosophy, realism, emphasised an objective reality beyond individual perceptions, guiding a deductive research approach that began with formulated theories and hypotheses.

The survey strategy, with archival research, formed the research strategy, and the retrospective longitudinal time horizon used historical data to examine changes over time. Techniques and procedures involved convenience sampling, anonymous surveys, and a mixed-methods approach that used both quantitative and qualitative data analysis. Ethical considerations adhered to the POPI Act, ensuring participants' rights and data protection.

This structured and thorough research methodology aimed to yield meaningful and reliable findings, contributing to the advancement of knowledge in customer experience management.

4. FINDINGS AND DISCUSSIONS

Data analysis played a critical role in the research process, involving the organisation and interpretation of the collected data to identify patterns and draw meaningful conclusions that addressed the research questions or objectives. The findings, discussed in the context of the literature, provided deep insights that contributed to a broader understanding of the research topic. Based on current knowledge and the literature review, a proposition was made, suggesting that optimised business processes have a positive impact on a company's customer experience management scores.

4.1. PROPOSITION

Based on current knowledge and the research collected in the literature review, a proposition could be made, stating that an optimised business process would positively impact a company's customer experience management scores.

4.2. THE COMPANY'S INITIAL CXM SCORES

In the analysis of the CXM scores, the NPS, CSAT, and CES were identified as key metrics, and archived survey data from March 2022 to June 2022 was scrutinised to establish the initial scores. The company collected survey data independently, with surveys being optional and customer responses being kept anonymous. Separate surveys for the sales and pre-sales process, the project management process, and ticket completion were conducted, gauging customer experiences in each phase.

Figures 2 to 4 show the initial CXM scores, based on feedback received from March to June 2022.
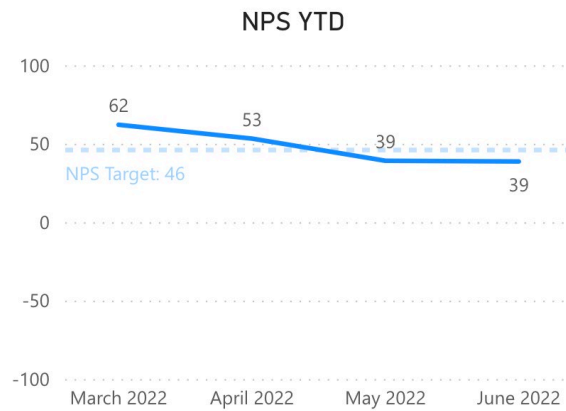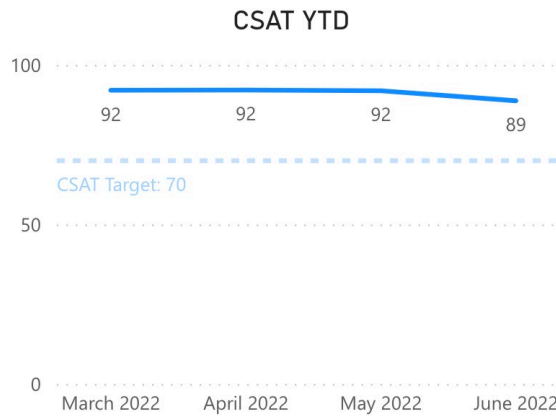
NPS YTD

Figure 2: Initial NPS over four months

CSAT YTD

Figure 3: Initial CSAT over four months

CES YTD

Figure 4: Initial CES over four months

Figures 5 to 7 show the average scores over this period, serving as a baseline for the pre-optimisation performance. The net NPS in Figure 4 indicates customer loyalty and satisfaction, while Figure 5 illustrates the CSAT score, reflecting overall satisfaction. Figure 6 presents the CES, assessing the ease of the customer journey.
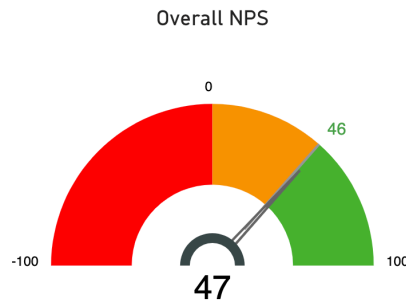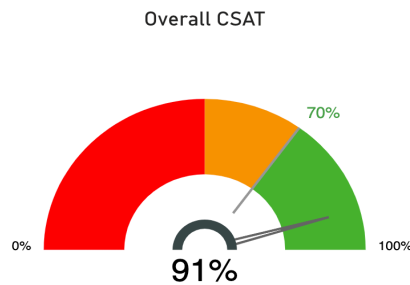
Overall NPS

Figure 5: Average initial NPS over four months

Overall CSAT

Figure 6: Average initial CSAT over four months
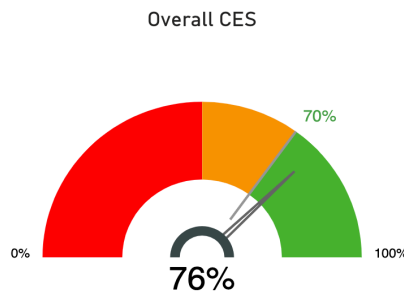
Overall CES

Figure 7: Average initial CES over four months

The initial averages in Figures 5 to 7 provided a baseline for comparison against future measurements. By tracking and comparing the scores after implementing the process optimisation, the company could gauge the effectiveness of the improvements and assess their impact on customer loyalty, satisfaction, and effort. The figures served as reference points to evaluate the success of the optimisation initiatives and to identify areas for further improvement. Despite initial scores that met company targets, a noticeable decline in all three CXM scores by June 2022 suggested the loss of potential impact, emphasising the need for ongoing monitoring and improvement strategies.

4.3. THE PROCESS OPTIMISATION PLAN

The company created a detailed plan based on Tech Target's (2021) business process management (BPM) lifecycle, a systematic approach that organisations follow to manage and improve their business processes. The BPM lifecycle encompasses six distinct phases that guide the systematic management of and improvement in business processes. It involves a series of phases that guide the identification, design, implementation, monitoring, and continuous improvement of organisational processes.

In the identification phase, critical business processes were defined, aligning them with strategic priorities. The focus was on understanding the objectives, stakeholders, and key performance indicators (KPIs) to guide the improvement efforts. This phase ensured that the most impactful processes were selected for optimisation.

The design phase involved creating optimised process models to improve efficiency and effectiveness. Stakeholders were engaged through workshops and surveys to gather insights, and process engineers developed detailed workflows. The result was a clear, well-documented process design that was ready for implementation.

The execution phase saw the rollout of the optimised processes, including staff training and updates to documentation and systems. Training materials, including videos and quizzes, were used to ensure that employees understood the changes. Company-wide communication highlighted the key benefits and steps involved in the new processes.

Finally, the monitoring and optimisation phases ensured the continuous tracking and improvement of the implemented processes. Performance data was regularly assessed, and further adjustments were made as needed. Stakeholder feedback and industry benchmarks played a key role in driving ongoing improvements, ensuring that the processes remained efficient and were aligned with organisational objectives.

4.4. IMPLEMENTATION OF THE PROCESS OPTIMISATION PLAN

In July 2023, the company implemented a set of meticulously designed and executed optimised processes with the objective of improving its operational efficiency, customer satisfaction, and overall business performance. This included streamlining the order fulfilment process to enhance delivery speed and accuracy, prioritising improvements in customer support through training and advanced CRM systems, and optimising digital platforms for a seamless customer experience.

Through the implementation of the process optimisation plan, the company targeted greater operational efficiency, heightened customer satisfaction, and sustainable business growth. The plan acted as a comprehensive guide, enabling the identification and elimination of bottlenecks and redundancies in existing processes, leading to streamlined operations, improved productivity, and better outcomes. This iterative approach, outlined in the plan, allowed for continuous monitoring, evaluation, and adjustment to ensure adaptability to changing market conditions and customer expectations. The focus on optimising three customer-centric processes — sales, project management, and support — was a strategic move to eliminate faults, to enhance resource use, and ultimately to improve customer experiences across all touchpoints.

4.5. CXM SCORES AFTER THE IMPLEMENTATION OF THE IMPROVED PROCESSES

Following the implementation of the sales, project management, and support process optimisations, the survey feedback was collected and analysed over six months. The latest CXM scores, calculated in Power BI from July 2022 to December 2022, demonstrated continuous improvement, with a temporary decrease in October 2022 that was attributed to an unavoidable system outage.

Figures 8 to 10 below show the latest CXM scores, based on the survey feedback received by the company from July 2022 to December 2022 after the optimised processes had been implemented. All three CXM scores improved monthly from July 2022. However, a decrease was experienced in October 2022 owing to a system outage that could not have been prevented or improved through the current optimised processes. An increase was realised again from November 2022.
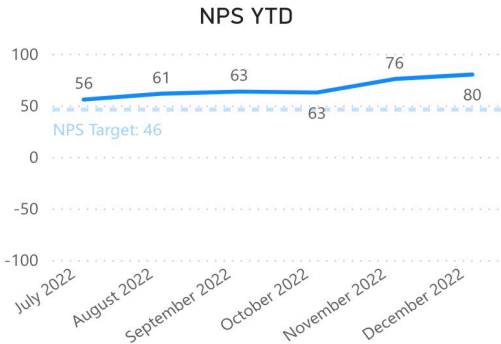

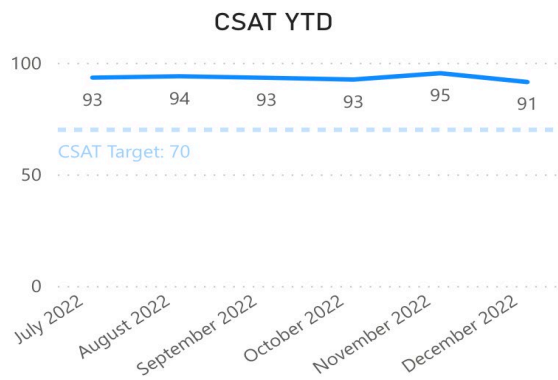**Figure 8: Latest NPS over six months**
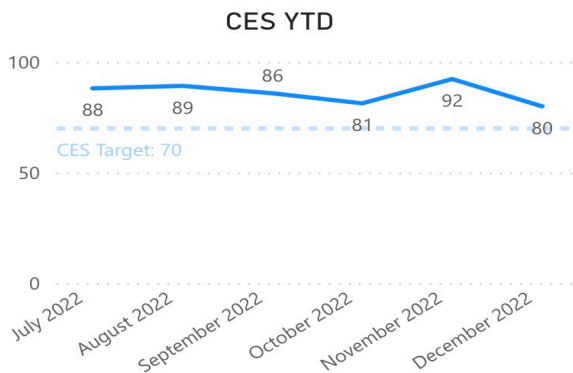
Figure 9: Latest CSAT over six months

Figure 10: Latest CES over six months

The latest averages over the six months, after the optimised processes had been implemented, are presented in Figures 11 to 13 below:
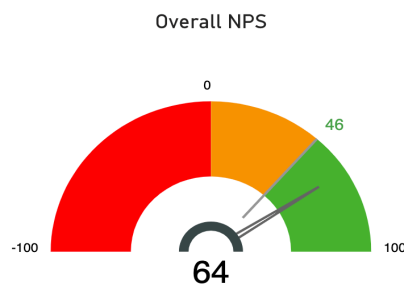

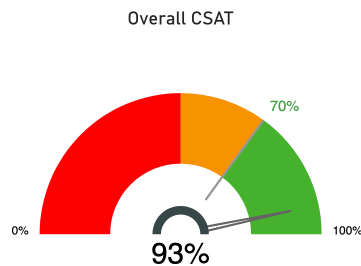**Figure 11: Average latest NPS over six months**

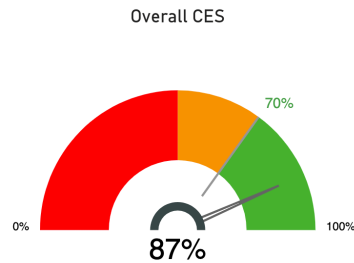**Figure 12: Average latest CSAT over six months**

Overall CES

Figure 13: Average latest CES over six months

All three average CXM scores were well above the company's identified target over the six months after the three optimised processes had been implemented.

The average scores over the six-month period after optimisation revealed notable enhancements:

1. NPS: Showing a substantial improvement over the pre-optimisation phase, the average NPS indicated heightened customer loyalty and satisfaction.
2. CSAT: Experiencing a slight increase, the average CSAT scores reflected an improved level of customer satisfaction with the overall experience, showing the company's ability to meet customer needs.
3. CES: Demonstrating a significant increase, the average CES scores indicated that customers found it easier and more convenient to interact with the company after the optimisation, highlighting streamlined processes and an improved customer journey.

These improvements illustrated the positive impact of the optimised processes on key customer experience metrics, reinforcing the company's commitment to delivering exceptional experiences and meeting customer expectations.

4.6. RESULTS

In respect of the NPS targets, a positive NPS, which indicates satisfied customers who are willing to recommend the company, is generally considered desirable for an IT company. While specific benchmarks may vary, a score above 30 is often deemed sufficient, with scores exceeding 50 considered excellent. The goal is continuous improvement over time, achieved by addressing customer feedback, delivering exceptional experiences, and consistently meeting or exceeding expectations.

Similarly, for the CSAT targets, a high score, which is often considered above 70% or higher, indicates customer satisfaction with IT services. Although no universal benchmark exists, companies often aim for scores above 80%. It is crucial to recognise the industry-specific nature of CSAT benchmarks.

Regarding CES, a desired percentage, often around 70% or above, signifies a positive customer experience with minimal effort. Achieving favourable CES percentages requires continuous improvement, pain point identification, and process streamlining.

The final CXM scores, displayed in Table 2, demonstrate substantial improvements in the NPS and CES post-optimisation, reinforcing the correlation between optimised business processes and enhanced customer loyalty and effort reduction. The results indicate a 17-point increase in NPS, an 11% improvement in CES, and a 2% enhancement in CSAT, emphasising the direct impact of process optimisation on customer perceptions and interactions.

Table 2: CXM scores differences

CXM score	Before	After	Difference
NPS	47	64	17
CSAT	91%	93%	2%
CES	76%	87%	11%

5. CONCLUSIONS AND RECOMMENDATIONS

This research underscores the critical role of customer experience in shaping business success. The focus on CXM scores as a metric for measuring satisfaction, loyalty, and overall customer perception has gained prominence.

5.1. CONCLUSION

The study, which addressed four key questions, began by establishing baseline CXM scores over four months. Subsequently, a tailored process optimisation plan for an information technology company was meticulously crafted to enhance sales, project management, and support processes. The implementation of this plan brought about discernible improvements in operational efficacy; and over six months, customer experience scores were closely monitored, revealing impactful changes in customer effort and loyalty.

This research study aimed to explore the impact of process optimisation on CES, with a specific focus on three key metrics: the NPS, the CSAT, and the CES. The study began with a set of four key questions that were addressed as follows:

1. The initial customer experience scores of the company were identified and calculated for four months. These scores served as a fundamental baseline for the study, enabling a comprehensive assessment of subsequent changes. The initial customer experience scores indicated the starting point of the company's customer satisfaction levels before any process optimisation measures were introduced.

2. The newly designed process optimisation plan, tailored specifically for the information technology company, was meticulously devised and crafted. This optimisation plan served as a foundational template to streamline and enhance the three identified processes (sales, project management, and support). The comprehensive nature of this plan addressed the unique operational requirements and challenges of the information technology company.

3. The implementation of the process optimisation plan brought about discernible changes in the relevant processes. These were meticulously optimised and executed, resulting in notable improvements and enhanced operational efficacy. The revisions made to these processes were in alignment with the process optimisation plan, and aimed to enhance efficiency and customer satisfaction.

4. The company's customer experience scores were closely monitored and diligently recorded for six months subsequent to the implementation of the optimised processes. This extensive tracking period allowed for an in-depth examination of the impact of the process optimisation on the overall customer experience, providing valuable insights into the effectiveness of the implemented improvements. The data collected over this period revealed the changes in customer effort and loyalty brought about by the optimised processes.

While acknowledging the positive impact of the optimised processes on the overall customer experience, the study also addressed a literature gap regarding the specific influence on individual CES metrics. The research findings revealed a substantial impact on two out of the three CXM scores (the NPS and the CES), offering valuable insights into effective strategies for enhancing customer satisfaction and loyalty. However, the proposition that optimisation would positively impact all three CXM scores was only partially supported, as the CSAT improvements were not as substantial. Further studies are recommended to explore the specific impact of optimised processes on customer satisfaction levels (CSAT) and whether customers perceive the expected value from the products or the services.

The framework emphasised a customer-centric approach, prioritising customer needs and feedback in decision-making processes, and encouraged a culture of continuous improvement where process optimisation was an ongoing effort.

5.2. RECOMMENDATIONS

This research has suggested that process optimisation should extend to customer portals and client-facing applications for a more detailed analysis. While the available data indicated a positive influence of process optimisation on CSAT, further studies are recommended for a more comprehensive understanding of this relationship. Surveys, interviews, or experiments with a larger sample size or over an extended period

could be conducted to collect more data and thus gain valuable insights into the specific processes that have an impact on CSAT.

The recommendations in Table 3 aim to assist the company in exceeding customer expectations, fostering excellence at every customer touchpoint, and promoting a culture of continuous improvement. Empirical data and industry best practices support these recommendations. In addition, they emphasise the importance of reliability and validity through statistical analysis to ensure data-driven decision-making.

Table 3: Recommendations

Research questions	Recommendations
What are the initial customer experience scores in the organisation prior to the implementation of any process optimisation measures?	Continually monitor and record baseline CES scores for future reference and comparison.
How could a comprehensive process optimisation plan be developed to align with the distinctive operational requirements and challenges of the information technology company?	Develop a tailored process optimisation plan that addresses specific operational challenges. This plan should focus on the critical quality dimensions discussed in section 4.
What are the relevant processes of the information technology company after they are mapped and revised according to the process optimisation plan?	Thoroughly map, revise, and optimise critical processes in alignment with the process optimisation plan. Ensure that quality dimensions are integrated into these processes.
To what extent do the enhancements in operational processes, as per the process optimisation plan, affect the customer experience scores of the company following implementation?	Continually monitor and analyse CX scores over a sustained period (at least six months) following process optimisation. Evaluate the impact on CX across all quality dimensions using statistical techniques (e.g., regression analysis) to assess the impact of process optimisation on the NPS, CES, and CSAT scores. Ensure data reliability and validity in all analyses.

The recommendation framework in Table 4 is designed to guide the information technology company in enhancing its operations and elevating customer experiences. The research's findings and insights align with the study's aim and research questions, mainly focusing on the net promoter score (NPS), the customer effort score (CES), customer satisfaction (CSAT), and process optimisation.

As the company strives for transformation and customer-centricity, this framework serves as a practical guide for achieving service quality excellence and operational efficiency.

To prevent future software outages from having an impact on CXM scores, the company was advised to focus on optimising other business processes related to unplanned software outages. Addressing root causes, improving IT infrastructure, enhancing testing and deployment procedures, and implementing effective incident response protocols would have minimised disruptions to the customer experience. In addition, gathering more information through customer feedback surveys, interviews, or focus groups would have been recommended to identify specific areas for enhancing overall customer satisfaction scores.

This multi-faceted analysis enabled the company to make informed decisions and take proactive steps toward improving customer satisfaction. To exceed customer expectations and foster a culture of continuous improvement, the company was advised continually to monitor and record its CXM scores for future reference and comparison.

Table 4: Recommendation framework

Aspect	Recommendation
Process optimisation	Develop and implement a comprehensive process optimisation plan tailored to the company's specific needs.
	Continually analyse and refine processes to enhance efficiency and customer satisfaction. |
Customer experience enhancement	Continuously measure and analyse NPS, CES, and CSAT scores to gauge customer satisfaction and effort levels.
	Implement a robust feedback system to capture customer opinions and insights.
NPS	Implement NPS surveys to measure customer loyalty and to identify promoters and detractors.
	Analyse NPS feedback to uncover insights for process optimisation.
CES	Evaluate the ease of customer interactions and identify areas where effort could be reduced.
	Implement CES surveys continually to identify and reduce customer effort in processes.
CSAT	Monitor CSAT scores to gauge overall customer satisfaction.
	Use CSAT feedback to pinpoint areas for service improvement.
Data collection and analysis	Establish a structured data collection process to track NPS, CES, and CSAT scores over time.
	Implement data analytics tools to gain deeper insights from customer feedback and survey results.
	Create dashboards and visualisations to present data effectively.
	Regularly review and analyse data to make informed decisions and identify trends.
	Incorporate data-driven insights into process optimisation efforts.
Customer-centric approach	Prioritise customer needs and feedback in decision-making processes.
	Foster a customer-centric culture in which customer satisfaction is paramount.
Continuous improvement	Encourage a culture of continuous improvement in which process optimisation is an ongoing effort.
	Regularly review and adapt strategies based on customer feedback and operational data.

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