Journal of Posthumanism

2025
Volume: 5, No: 9, pp. 197–228
ISSN: 2634-3576 (Print) | ISSN 2634-3584 (Online)
posthumanism.co.uk

DOI: https://doi.org/10.63332/joph.v5i9.3307

Quality Service Issues: A Case Study in an Automotive Firm

Muhammad Shahar Jusoh[1], Mohammad Harith Amlus[2], Mohammad Shariff Ismail[3], H. M. Chin[4], J.W. Lee[5], Aidanazima Abashah[6], Rosmaini Ahmad[7]

Abstract

This study investigates critical quality service issues within the customer service centers of ABC Automotive, focusing on three key areas: customer service response times, clarity of communication, and the effectiveness of post-service support. The research aims to understand the impact of these issues on customer satisfaction and to propose strategic improvements. Findings indicate that prolonged delays in customer service interactions, ambiguous communication regarding service status, and inadequate post-service assistance significantly detract from the overall customer experience and compromise customer loyalty. This study offers valuable insights for ABC Automotive to address these challenges and provides a framework for other service centers seeking continuous improvement in their operational practices.

Keywords: *Automotive Industry, Customer Satisfaction, Quality Service*

Introduction

ABC Automotive is a prominent automotive firm that has established itself as a significant player in the regional market, known for its production of reasonably priced and practical vehicles. Over the years, this company has grown to become one of the leading automakers in its operating region, consistently focusing on delivering value to consumers through economical manufacturing and reliable products.

The company's strategic objective has always been to provide accessible and dependable automobiles to a broad consumer base. Since its inception, ABC Automotive introduced its initial models, which were compact vehicles designed for efficiency and affordability, quickly gaining commercial success. This initial success laid the groundwork for the firm's expansion and its reputation as a key producer of economical cars.

Over time, ABC Automotive has diversified its vehicle lineup, introducing a range of popular compact and sedan models. These models have consistently achieved strong market acceptance due to their affordability, dependability, and fuel efficiency, becoming best-sellers in their respective segments. The firm's marketing strategy is centered on meeting the demands of the

[1] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: Shahar@unimap.edu.my
[2] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: harithamlus@unimap.edu.my
[3] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: Shariff@unimap.edu.my
[4] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: s211220506@studentmail.unimap.edu.my
[5] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: s211220552@studentmail.unimap.edu.my
[6] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: aidanazima@unimap.edu.my
[7] Faculty of Business & Communication, University Malaysia Perlis, Perlis, Malaysia.; Email: rosmainiahmad@unimap.edu.my

typical consumer while maintaining a competitive edge through cost-effective production, allowing it to successfully compete with both domestic and international automakers and secure a substantial market presence.

ABC Automotive operates a highly automated and efficient manufacturing facility, equipped with advanced technologies that enable it to meet demand from both local and international markets. Its collaborative efforts with major global automakers have further accelerated technological development and enhanced production procedures, contributing to its operational excellence.

Despite its successes, ABC Automotive faces ongoing challenges, particularly in maintaining high standards of customer service amidst evolving customer expectations. Reported issues such as delayed customer service responses, insufficient communication regarding service status, and inadequate post-service support highlight areas for improvement. In a highly competitive market, addressing these quality assurance concerns is crucial for ABC Automotive to sustain customer satisfaction and loyalty.

Customer satisfaction and service quality are paramount for cultivating a loyal customer base and ensuring long-term viability in the contemporary automotive industry. While ABC Automotive is a recognized brand for producing reliable and affordable vehicles, the performance of its customer service centers significantly influences the overall customer experience. Acknowledged concerns regarding post-service support, clarity of communication, and responsiveness of customer service have been noted at these centers.

Delays and inefficiencies in customer service response represent critical touchpoints that profoundly affect customer satisfaction. Extended waiting periods and unresponsive customer service representatives negatively impact customers' perceptions of a brand's reliability and commitment to service excellence. Furthermore, ambiguous communication regarding service status, pricing, and scheduling can frustrate clients and erode trust. Customers require timely and accurate information to feel valued and to make informed decisions. Research indicates that incentive systems tied to customer satisfaction can enhance salespeople's customer service response compared to those based solely on sales volume.

Post-service support is another vital component of customer service, involving follow-up interactions to ensure that the delivered service meets customer expectations and addresses any lingering issues. Insufficient post-service support can lead to unresolved problems, diminishing customer satisfaction and confidence. The concept of the product-service system, which integrates product functionality with accompanying services throughout the product life cycle, has gained prominence. After-sales service is a vital component of this system, contributing significantly to customer satisfaction and fostering sustainable customer relationships (Murali et al., 2016; Ahn & Sohn, 2009; Geng & Chu, 2012; Kurata & Nam, 2010; Markeset & Kumar, 2003; Pezzotta, Cavalieri, & Gaiardelli, 2012).

Clear communication is essential for building trust and managing customer expectations. When service representatives fail to provide precise and timely updates concerning vehicle servicing, confusion and dissatisfaction can arise. Clients expect comprehensive explanations regarding work in progress, associated costs, and potential delays. A lack of clear communication can leave clients feeling neglected and uncertain about the status and quality of the services they are receiving. Information sharing and planning have the potential to enhance channel efficiency and competitiveness (Closs et al., 1997; Daugherty et al., 1996; Ellram & Cooper, 1990; Gopal & Cypress, 1993).

The primary objective of this study is to systematically identify and evaluate these quality assurance challenges within ABC Automotive's customer support centers. By understanding how these issues affect client satisfaction and investigating their underlying causes, this research aims to propose actionable solutions to enhance service quality. Improving the overall customer experience, fostering loyalty, and maintaining ABC Automotive's competitive advantage in the automotive market necessitate robust post-service support, transparent communication, and enhanced customer service responsiveness.

Problem Statement

Significant quality assurance issues are currently affecting ABC Automotive customer service centers, which is having an effect on general customer satisfaction and loyalty. The centres are specifically struggling with poor post-service support, poor communication regarding service status, and delays in customer service response times.

First of all, clients who anticipate prompt and effective handling of their questions and service requests become irritated when there are delays in customer service response. The negative impact of extended waiting periods and delayed responses from customer service representatives on ABC Automotive's reputation for dependability and dedication to delivering superior service is well-documented.

Second, unresolved issues and recurring problems with serviced vehicles have been caused by inadequate post-service support. Customers become less confident in the services offered as a result of this lack of follow-up and continuing support, which makes them feel ignored and unsatisfied with their overall experience.

Finally, poor communication about timely delivery, costs, and service status makes customers even more irate and uneasy. Customers' trust is damaged and may become dissatisfied when they are not informed about the status of their vehicle servicing, possible delays, and additional costs. For the purpose of controlling customer expectations and guaranteeing a satisfying service experience, communication must be prompt, clear, and transparent.

Research Question

How do delays in the customer service response at the ABC Automotive customer service center affect the overall customer satisfaction?

This is the main research question in this study will focus on how delays in the customer service response at the ABC Automotive customer service center affect the overall customer satisfaction. This is the main issue that causes the problem.

Research Objectives

To evaluate how the ABC Automotive customer service centers’ general customer satisfaction is affected when customer service responses are delayed.

This is the main problem that happened in the ABC Automotive, the delay and inefficiencies in customer service response are the most concerning ones. This will be further discussed in the methodology section. This study will evaluate how ABC Automotive customer service centers' general customer satisfaction is affected when customer service responses are delayed. This study will later be more focused on what kind of solutions that is effective that can help the company to solve the issue.

Significant of this Study

This study on quality assurance problems at ABC Automotive customer service centres is important because it affects a number of stakeholders and adds to our knowledge of service quality management in the automotive sector.

This study will help enhance customer satisfaction as the study aims to improve overall customer satisfaction by identifying and addressing poor communication, inadequate post-service support, and delays in customer service response. Enhanced customer loyalty and positive word-of-mouth recommendations are crucial for ABC Automotive's long-term success, and they are fostered by improved service quality.

It will also help gain a competitive advantage for ABC Automotive. Through the resolution of the identified quality assurance issues, ABC Automotive will be able to set itself apart from rivals in the automotive industry. Offering excellent customer service becomes essential to drawing in new business and keeping existing ones, which boosts ABC Automotive's standing in the industry and reputation.

This study will also help enhance the employee's performance and morale as the employees will work in better environments when there are clear communication guidelines and improved service processes. Improved performance and job satisfaction lower employee attrition and promote a positive work environment, which eventually benefits both clients and staff.

The report provides ABC Automotive's management with insightful information to help them decide on strategic projects and service enhancements. Suggestions based on data can direct investments in improving service quality and policy, resulting in long-lasting gains.

All things considered, this research has the potential to greatly boost ABC Automotive's customer service operations, strengthen customer relationships, and support the company's expansion and success. It can also offer insightful information to the larger academic and industry communities.

Literature Review

Customer Relationship Management (CRM)

CRM can be defined as a comprehensive approach to managing and optimising customer relationships, encompassing a philosophy, strategy, process, and technical toolset (Khalid Rababah, 2011). According to L. Ryals (2001), CRM is a corporate strategy that focuses on building and maintaining relationships with customers, as well as enhancing customer value through effective process management. CRM, or customer relationship management, is a company strategy that prioritises the needs and pleasure of customers. Its goal is to enhance customer loyalty by providing personalised and prompt services to each individual client. A. Croteau (2009) stated that CRM, or customer relationship management, is a high-level business process that encompasses various sub-processes, including prospect identification and customer knowledge development (R. K. Srivastava, 1999).

The process can be described as the manner in which activities are carried out inside an organisation (F. Buttle, 2009; A. S. Lo, 2009). In their study, J.-M. Moutot (2008) has provided a definition of CRM processes as "the actions carried out by the organisation in relation to the management of the customer relationship, which are categorised based on a chronological perspective of the relationship." E. J. Ragins (2003) states that the purpose of the CRM process is to shape customers' impressions of an organisation and its products by identifying customers, generating customer

knowledge, and establishing customer connections. According to F. Buttle (2009), CRM processes can be classified as vertical and horizontal processes, front-office and back-office activities, as well as primary and secondary processes. He stated that vertical processes are those that are confined to specific company functions, such as the client acquisition process. On the other hand, horizontal processes are cross-functional processes, such as the product development process. Front-office procedures encompass customer-facing activities such as complaint management, whereas back-office processes encompass hidden and non-customer-facing activities like procurement. The primary processes in organisations, such as the logistics process in courier organisations and the claims process in insurance organisations, have significant cost or revenue implications. On the other hand, the secondary processes in organisations have minor cost or revenue implications. According to E. J. Ragins (2003), there are three layers of CRM processes: the customer-facing level, the functional level, and the companywide level. Furthermore, there exist several viewpoints and outlooks regarding CRM procedures. The subsequent sections will furnish a depiction of the principal themes associated with these perspectives.

Service Quality (SERVQUAL)

Zeithaml and Bitner (1996) defined services as having characteristics such as heterogeneity, intangibility, simultaneous production and consumption, and direct interaction. As service quality measurement becomes more intricate, researchers have devised multiple methods to evaluate it. For example, Parasuraman et al. (1985) created a service quality assessment model comprising ten dimensions.

Satisfactory service is defined as service that successfully fulfils the requirements and expectations of customers. Assessing service quality is a crucial aspect of delivering improved, streamlined, and impactful service (Zeithaml, 1987). "The individuals invited are perceptive, refined individuals who prioritise high standards." in striving to customise our goods and provide meticulous attention to each individual consumer. According to Alain Ducasse, surprise and culinary enchantment are the factors that ensure customer satisfaction and loyalty. He is renowned as a prominent chef hailing from France.

Parasuraman, A. (1985) categorises the quality of services into three dimensions: physical quality, interaction quality, and corporate image quality. An effective approach to initiate a quality enhancement initiative is to engage in discussions with consumers regarding their views and requirements. This team activity is well-designed to foster a commitment to taking action and to concentrating on the available opportunities. The first step is to identify the clients and then segment them using various methods. Typical factors to consider include the location, nature of the firm, order volume, overall revenue, and the extent to which they engage with your competition.

Service quality can be defined as the organisation's overall commitment to excellence and providing good service. According to Parasuraman, A. (1985), the concept of service quality refers to the user's evaluation of the total service experience. The consumer's assessment of service quality can be determined by comparing their expectations with their actual perceptions of the services. Service quality is a key determinant of a commercial firm's success. The evaluation of service quality is typically determined by the clients themselves, who can assess whether it is good or poor. Business entities, including companies and organisations, should conduct studies to analyse the delivery of services, assess their quality, and evaluate client reactions to the service provided. Therefore, in order to enhance the provision of service quality, a company should prioritise customer-oriented analysis (Mwita, J.S., 2000).

In the mid-1980s, Parasuramn A, Valarie A. Zeithaml, and Leonard L. Berry (1985) initiated a study on factors that influence customers' perceptions and choices regarding service quality. The original model consisted of 10 dimensions, but it was reduced to five: tangibles, reliability, responsiveness, assurance, and empathy (Figure 1). These dimensions are defined as follows:

1. Tangibles: physical facilities, equipment, and appearance of personnel.

2. Reliability: ability to perform the promised service dependably and accurately.

3. Responsiveness: willingness to help customers and provide prompt service.

4. Assurance (including competence, courtesy, credibility, and security): knowledge and courtesy of employees and their ability to inspire trust and confidence.

5. Empathy (including access, communication, and understanding the customer): caring and individualized attention that the firm provides to its customers.

Figure 1: SERVQUAL Model (YourCX, 2024)

Customer Satisfaction

Customer satisfaction is determined by the extent to which the performance of a product or service meets the buyer's expectations, resulting in feelings of disappointment or pleasure (Oliver, 1999; Kotler & Armstrong, 2008). Customer satisfaction is a significant predictor of future purchase intention (Mittal & Kamakura, 2001) and is attained when the anticipated level of quality is either fulfilled or exceeded. Typically, a high level of customer satisfaction is associated with a high level of repurchasing intention, according to studies by Hellier et al. (2003) and Fang, Chiu, & Wang (2011). Inadequate consideration of customer satisfaction can result in customers switching to a different brand or deciding not to make future purchases. This is because customer satisfaction and the intention to repurchase are closely connected (Yeoh Hooi Chin, 2010).

Customer satisfaction, as defined by P. Kotler (2000), is a marketing term that refers to the emotional response of individuals after evaluating the performance of a product in relation to their expectations. Hence, if a customer is content with the value offered by a product or service, it is probable that they will remain a customer for an extended duration. Therefore, satisfaction is obtained through the customer experience, which is defined by the sales force as "all the interactions

between a brand and its customers." To ensure the high standard of all these interactions, marketers must monitor and analyse these experiences across the whole client journey.

As stated by Kahar, A.S.A. (2008), contentment is a business concept that refers to the evaluation of how well a product or service offered by an organisation fulfils the expectations of customers. Customer satisfaction occurs when the client's perception of a service provider aligns with their expectations (Cina, C., 1989). Customer satisfaction is primarily determined by the response or judgment of customers towards items or services following their use (Al-Hawari, 2006). According to P. Kotler (1996), contentment refers to the extent to which a person's evaluation of a product's perceived performance or outcome matches their expectations. Here, it refers to the impact of the service provided on the satisfaction level of clients who utilise the service.

Plan-Do-Check-Act (PDCA) Model

PDCA is a quality management technique commonly employed in the service and manufacturing sectors as a tool for continuous improvement. The PDCA activities involve four distinct steps: Plan, Do, Check, and Act. These processes are performed in a circular manner, establishing a continuous cycle. PDCA, also known as the Plan-Do-Check-Act method, is a highly utilised tool for continuous improvement in both the services and manufacturing industries. The PDCA method (Figure 2), commences with initial assessments to evaluate potential impacts on systems, and subsequently advances towards more substantial and targeted enhancements. The outcomes of implementing the PDCA method can be utilised to address issues related to qualitative and quantitative data. This method has been extensively employed in the service and manufacturing industries to achieve continuous improvement and establish a systematic approach for enhancing processes or systems within an organisation, ultimately leading to increased productivity (Sarah Isniah, 2020).

This approach of controlling and enhancing the management process of the supply chain or the company's practices involves iterating through four steps.

The strategy employs 4 steps to carefully monitor and correct any deviations that may arise, with the ultimate objective of improving company operations. The PDCA method concludes with the Planning, Conducting, Testing, and Implementation processes, which are also referred to as the Deming Phase. Deming devised the plan-do-check-act model as a four-stage iterative problem-solving process (M. M. M. Jagtap, 2015):

1. **Plan -** A plan is a structured approach that involves establishing objectives and implementing strategies to get desired outcomes.

2. **Do -** This phase has already been established.

3. **Check -** The steps of the inspection process have been closely observed and assessed in accordance with the specified criteria.

4. **Act -** In the fourth stage, measures are implemented to enhance outcomes and achieve or surpass predetermined criteria.

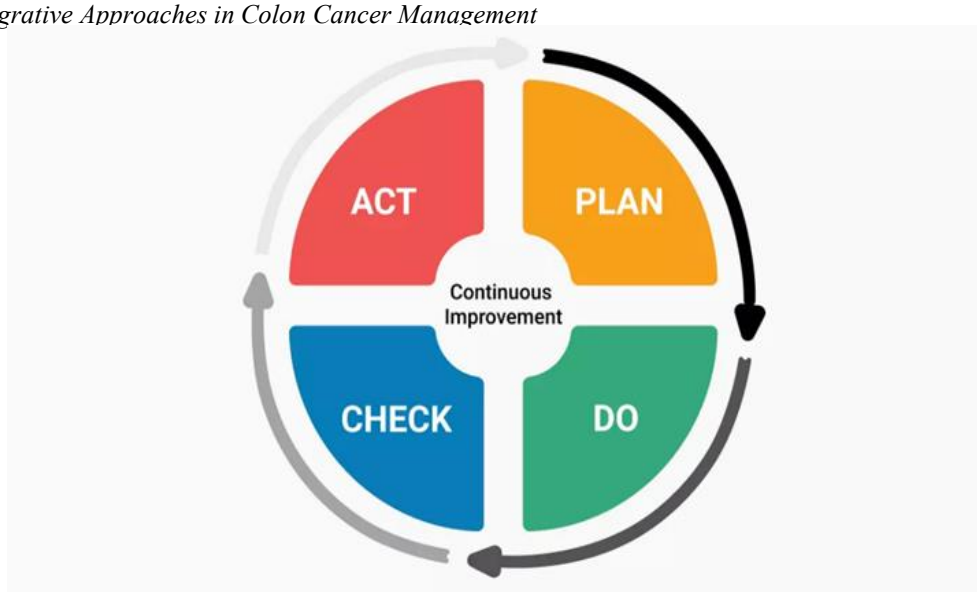


Figure 2: PDCA Method (Businessmap, 2024)

Ishikawa Diagram

Luca Liliana (2016) stated that Kaoru Ishikawa is most renowned for his contribution to the construction of the fishbone diagram, sometimes referred to as the "Ishikawa diagram". This diagram continues to be utilised in numerous organisations to diagnose issues and implement specific solutions by identifying the underlying cause of the problem. The management leader made notable and precise progress in quality improvement using his cause and effect diagram, often known as the "Ishikawa" or "fishbone" diagram. The diagram's design closely resembles the skeletal structure of a fish. The conventional approach for constructing fishbone diagrams is a right-to-left progression, where each major "bone" of the fish extends to encompass lesser bones that provide additional details.

The technique employs a diagrammatic approach to systematically analyse all potential sources of an issue. This facilitates a comprehensive examination of the problem. The tool can be used in four steps:

1. Determine the issue.
2. Analyse the primary factors involved.
3. Determine potential factors that may have led to the situation.
4. Examine your diagram critically.

Causes are typically classified into primary groups to identify these origins of variation. The categories usually consist of:

- People: Any person engaged in the procedure.
- Methods: The techniques and protocols used to carry out the process, including the necessary policies, procedures, rules, regulations, and laws.
- Machines: Any equipment, computers, tools, or other devices needed to complete the task.

- Materials: The raw materials, components, writing instruments, paper, or other supplies utilised in the production of the final product.
- Measurements: The data obtained from the process that are employed to assess its quality.
- Environment: The set of circumstances, including factors such as geographical location, time frame, temperature, and cultural context, in which the process takes place.

An Ishikawa diagram (Figure 3), is a visual representation that effectively displays the connections between a certain outcome and its underlying causes.

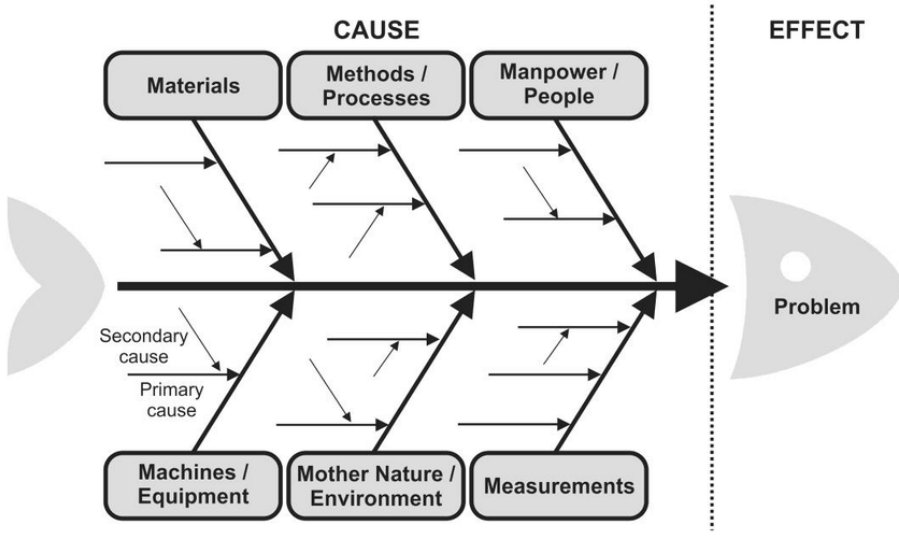


Figure 3: Ishikawa Diagram (Balkan and Near, 2017)

Methodology

Research methodology refers to the systematic plan and approach used to conduct research. It encompasses the techniques, procedures, and tools that researchers employ to collect and analyze data. This methodology ensures the reliability and validity of the research findings by providing a structured framework for investigating specific questions or hypotheses. It includes choosing appropriate methods for data collection, such as surveys, experiments, or observations, and deciding on the analysis techniques to interpret the data accurately. The goal of a research methodology is to provide clear, replicable, and objective results that contribute to the knowledge base of a particular field.

PDCA

The PDCA cycle, often referred to as a four-step iterative method used in business to continuously improve processes and products. This cycle consists of four steps: plan, do, check and act. During the Plan phase, objectives and methods are defined to ensure results meet expectations. The Do phase consists of executing plans and procedures. During the Check phase, data is monitored and compared to predicted values to detect any anomalies. Finally, in the Act phase, changes are

implemented to improve the process based on what was learned during the Review phase, and the cycle repeats. This technique allows organizations to methodically test hypotheses and learn from findings, thereby driving continuous improvement (Tague, 2004).

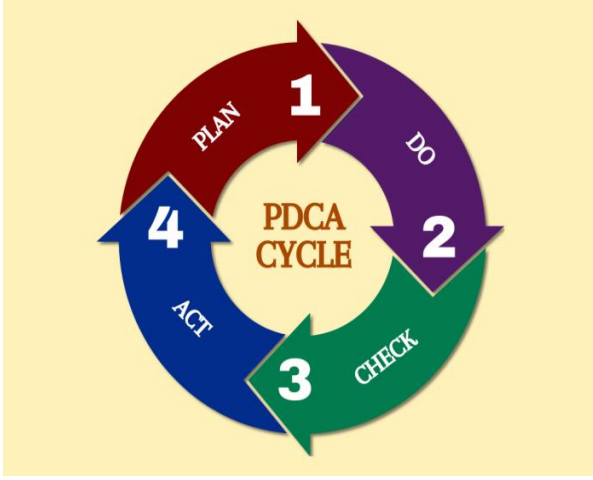


Figure 4: PDCA Cycle

Plan

The interviewer initially interviewed with the person in charge at ABC Automotive Service Center in Kangar to gain insights into the issues the company encounters regarding delays in customer service response, inadequate communication regarding service status, and insufficient post-service support.

Here are some of the questionnaires used in our interviews:

1	**During the course of doing business, are there any problems related to customer service?**
2	What is the customer service problem that your company faces now?
3	What are the main factors contributing to delays in responding to customer inquiries?
4	Can you describe the current process for handling customer inquiries and how response times are tracked?
5	How do you prioritise customer inquiries, and what steps are taken to ensure urgent matters are addressed promptly?
6	How does your team currently communicate service status updates to customers?
7	What challenges do you face in providing timely and accurate service status updates to customers?
8	How do you handle customer feedback and complaints after a service has been completed?
9	What follow-up procedures are in place to ensure customers are satisfied with the service they received?
10	Can you share any recent initiatives or improvements made to address all those problems?

Table 1: Interview Question

The interview session at the ABC Automotive Service Center, held to identify common issues affecting the company's operations. The results of these interviews with managers revealed that the main issues were delays in customer service responses, insufficient communication about service status, and insufficient after-service support. To gain a deeper understanding and effectively address these concerns, more in-depth interviews with managers are essential. These follow-up interviews will help us uncover the root causes of these problems, allowing us to develop targeted solutions that improve customer satisfaction and streamline service processes. By thoroughly analyzing these issues, that aim to implement strategies that will improve response time, ensure clear and timely communication with customers, and provide comprehensive support after the service is completed.

Additionally, using a fishbone diagram helps us identify factors that contribute to the most critical issue, which is delays in customer service response. Among these factors are people, processes, technology, and environmental conditions. This comprehensive approach allows us to more effectively address the causes of delays and implement targeted improvements to improve the overall efficiency of our customer service operations. By involving all relevant stakeholders in this analysis, to ensure a comprehensive and collaborative effort towards resolving these issues, ultimately leading to a more responsive and customer-centric service environment.

Figure 5: Flow Chart

Do

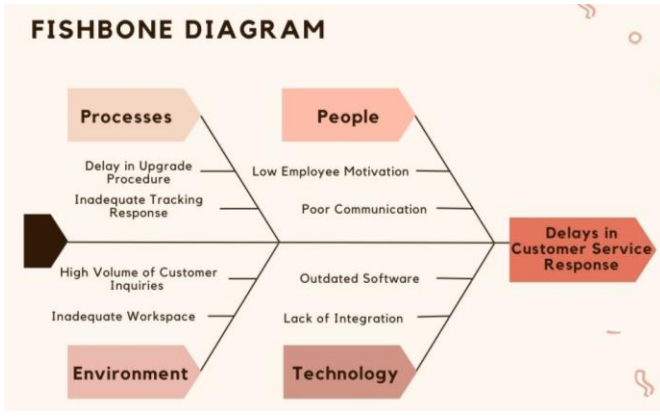


Figure 6: Fishbone Diagram

According to the fishbone diagram above, ABC Automotive's main issue is the delay in customer service response. Therefore, to figure out why this problem often occurs in ABC Automotive's customer management. Four main factors were found contribute to ABC Automotive customer service response delays, which are people, process, technology and environment. Poor communication and insufficient staff motivation impact the people factor. In terms of technology, outdated software and a lack of system integration are major concerns. Process factors include

delays in escalation procedures and poor response time tracking. Finally, environmental variables are affected by the high frequency of customer questions and limited workspace, both of which make things worse. Addressing these issues is critical to improving overall customer service efficiency and satisfaction. Next, the customer survey was conducted, which revealed that poor communication within the team was the primary cause of the problem. This leads to uncontrolled inquiries, extra effort, and delayed response. This not only reduces the productivity of the customer service department, but also harms the company's reputation since clients receive inconsistent and delayed assistance.

Check

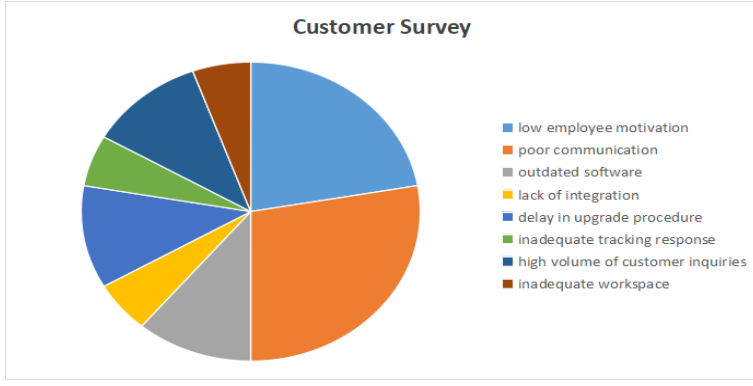


Figure 7: Percentage for the Customer Surveys

According to customer surveys, several significant difficulties affecting the ABC Automotive company have been highlighted. The most frequently cited concern, with 25% of users stated that ABC Automotive needs better internal communication. Furthermore, 20% of consumers expressed insufficient employee motivation, forcing ABC Automotive to emphasize the importance of better engagement programs. 18% of users expressed concern about outdated software, indicating that ABC Automotive needs to urgently modernize its technical tools. Lack of integration accounted for 5%, and delays in escalation procedures impacted 10% of customers, both contributing to delays in customer care response. 7% of users reported insufficient tracking response, indicating that the monitoring system needs to be improved. Finally, 10% of customers are affected by a high volume of inquiries, highlighting the need for automated customer service solutions.

Based on the findings of the customer survey for ABC Automotive, the most pressing concern is the need for better internal communication, as highlighted by 25% of respondents. This suggests that improving communication channels and practices within the company should be a top priority to address customer concerns and improve overall operations.

Act

Analyzing feedback and monitoring results from the efforts at ABC Automotive, it is apparent that delivering targeted change requires a holistic strategy across multiple key areas. First, a thorough evaluation of communication technology is necessary to determine how well it enables internal communication. If feedback indicates usability concerns or functionality gaps, a change in features or an investigation into alternative technologies that better meet ABC Automotive's communication objectives will be considered. Second, the employee engagement program will be improved based

on feedback to ensure it properly motivates the ABC Automotive team and meets their expectations. This may include introducing new incentives, refining current programs to better connect with staff, or strengthening communication channels within these projects to create more engagement and alignment with business objectives.

Third, while early improvements have been made to software updates, ongoing monitoring of program performance is critical. Any weaknesses or performance concerns found will prompt further optimization of the system, ensuring it runs smoothly and effectively across all departments and operations. Furthermore, integration efforts will focus on improving process efficiency across ABC Automotive's various systems. This may involve improving integration methods, correcting compatibility concerns across multiple systems, or expanding integration capabilities to optimize operations and improve data flow across the organization.

Furthermore, a commitment to improving escalation procedures involves a number of strategic initiatives to improve response time and effectiveness. The escalation path will be clarified to ensure clear and efficient handling of customer issues. Additional training will be provided to staff involved in escalation to empower them with the skills needed for rapid resolution. Additionally, automated alerts will be implemented that notify relevant staff of critical issues, enabling proactive intervention and improving overall customer satisfaction.

Besides, efforts to improve tracking systems are aimed at ensuring accurate and timely monitoring of customer interactions and internal processes. This requires enhancing tracking tools to capture comprehensive data, enhancing data analysis capabilities to derive actionable insights, and implementing real-time reporting features that facilitate proactive decision making and foster operational transparency across the organization. These measures are designed not only to address current challenges but also to streamline operations and improve service delivery standards at ABC Automotive.

Finally, the PDCA cycle, along with user survey results, will be used to drive specific changes. Usability problems will be solved and smooth operations will be ensured by reviewing communication technology, increasing staff engagement, and optimizing software upgrades. Clear pathways, staff training, and automated alerts improve integration and upgrade procedures, resulting in increased productivity and customer satisfaction. Transparency and informed decision-making are facilitated by better tracking systems. This initiative aims to successfully improve service standards while also aligning with ABC Automotive's commercial objectives.

Force Ranking

	Impact on Customer Satisfaction (3)	**Contribution to Service Efficiency (2)**	**Influence on Customer Loyalty (1)**	**Total score**
Delays in Customer Service Response	5 x 3 = 15	4 x 2 = 8	3 x 1 = 3	26
Inadequate communication regarding service status	3 x 3 = 9	3 x 2 = 6	5 x 1 = 5	20

Insufficient post-service support	4 x 3 = 12	2 x 2 = 4	3 x 1 = 3	19

Table 2: Force Ranking

Force ranking refers to a methodical evaluation and prioritization technique used to assess and rank various issues or factors based on their impact on specific outcomes such as customer satisfaction, service efficiency, and customer loyalty. The process involves assigning scores to different issues based on predefined criteria and calculating their overall significance through weighted multipliers. This approach helps in identifying and prioritizing the most critical areas that require attention and improvement, enabling organizations to focus their resources on addressing the factors that have the most substantial negative impact on their performance and customer experience.

Based on the table above, the detailed force ranking analysis, is aimed at assessing various factors impacting customer service performance. It systematically evaluates specific issues such as delays in customer service response, inadequate communication regarding service status, and insufficient post-service support. The evaluation process involves a multi-dimensional scoring system that calculates the overall impact of each issue on customer satisfaction, service efficiency, and customer loyalty.

For each factor, a score is assigned based on its perceived impact, followed by a multiplication of this score with a weight to gauge the significance in terms of customer satisfaction, contribution to service efficiency, and influence on customer loyalty. For instance, "Delays in Customer Service Response" received the highest total score of 26, indicating it has the most significant negative impact overall. This score is derived from a detailed breakdown: a score of 5 for impact on customer satisfaction weighted by 3, yielding 15. A score of 4 for contribution to service efficiency weighted by 2, yielding 8 and a score of 3 for influence on customer loyalty weighted by 1, yielding 3. Similarly, "Inadequate Communication Regarding Service Status" and "Insufficient Post-Service Support" are evaluated, with total scores of 20 and 19 respectively, reflecting their relative impacts.

This force ranking highlights the most critical areas needing improvement, prioritizing issues that significantly affect the customer experience and operational efficiency. By quantifying these impacts, the organization can effectively target their efforts to enhance customer satisfaction and loyalty, thereby improving overall service quality.

Results and Findings

Based on Pareto analysis, major service quality issues are focused on the impact of response delays; an investigation highlighted five main concerns (Table 5) : poor communication, low employee motivation, outdated software, delays in upgrade procedures and a high volume of customer inquiries. Each issue contributes equally to the overall problem, presenting a multifaceted challenge. Addressing these areas, particularly focusing on improving communication channels and upgrading technology infrastructure, can significantly improve customer service efficiency and response time, thereby improving customer satisfaction and operational performance at ABC Automotive.

Issue	**Frequency**	**Percentage (%)**	**Cumulative Frequency**	**Cumulative percentage (%)**

Poor Communication	18	28.57	18	28.57
Low Employee Motivation	15	23.81	33	52.38
Outdated Software	12	19.05	45	71.43
Delay in Upgrade Procedure	10	15.87	55	87.3
High Volume of Customer Inquiries	8	12.7	63	100
Total	63	100		

Table 3: Data Distribution

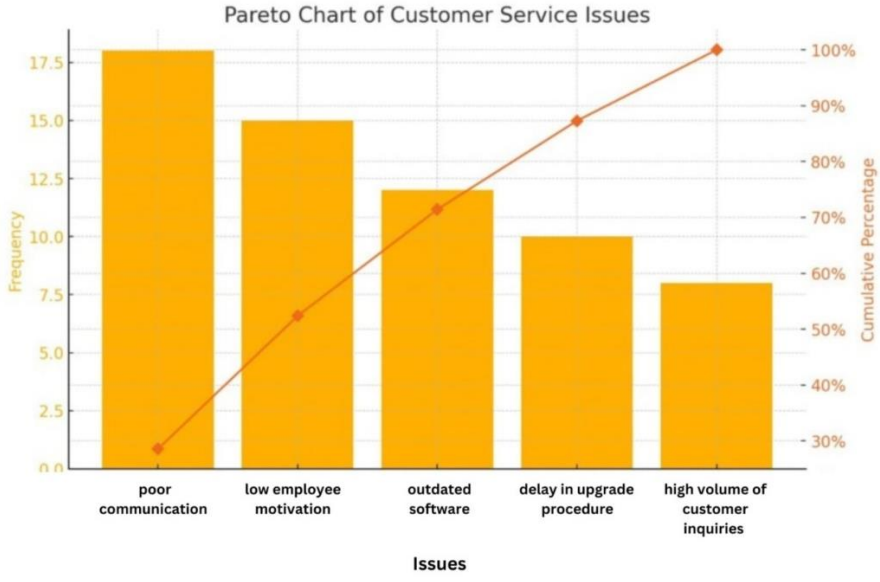


Figure 8: Pareto Chart

Pareto tables and charts (Figure 8) illustrate the distribution of delays in customer service response issues faced by ABC Automotive, providing a clear picture of areas that require attention. The table measures the issues in terms of frequency, percentage, cumulative frequency and cumulative percentage. Poor communication tops the list with 18 frequency, representing 28.57% of the total issues, followed by low employee motivation with 15 frequency (23.81%). Together, these two issues accounted for more than half of the total problems at 52.38%. Outdated software, delays in upgrade procedures, and high volume of customer inquiries made up the rest, cumulatively accounting for the remaining 47.62%.

The Pareto chart clearly emphasizes this distribution, with the highest bars representing the most common difficulties. The cumulative percentage line shows that solving the most pressing issue, poor communication, has the ability to solve more than half of ABC Automotive's customer service issues. ABC Automotive can increase customer satisfaction by prioritizing improvements in areas such as communication channels and staff engagement through training and incentives.

Furthermore, fixing issues such as outdated software and procedural delays can help streamline operations and manage customer concerns more efficiently. ABC Automotive's focused strategy, driven by the Pareto principle, will enable them to maximize the impact of their customer service efforts.

In conclusion, the table and Pareto chart analysis of ABC Automotive's customer service difficulties highlight the important need to improve poor communication, which accounts for more than half of all reported problems. ABC Automotive's customer service experience may be significantly improved by introducing targeted improvements in communication and staff engagement, as well as eliminating operational inefficiencies such as outdated software and procedural delays. This strategic emphasis not only adheres to the Pareto principle, but it also ensures that efforts are directed to the most effective areas, resulting in increased customer satisfaction and overall operational efficiency.

Conclusion

This report investigated the challenges faced by ABC Automotive's customer service department, focusing on delays in response times, inadequate communication, and insufficient post-service support. By applying the PDCA cycle and conducting a detailed Pareto analysis, to identified key issues such as poor communication, low employee motivation, outdated software, delays in upgrade procedures, and a high volume of customer inquiries.

The analysis revealed that poor communication is the most significant factor impacting customer service efficiency, accounting for over 28% of the issues. Addressing this, along with enhancing employee motivation, updating technology, and streamlining procedures, will be crucial in improving customer satisfaction and operational performance.

Implementing targeted strategies based on these findings, such as enhancing internal communication, boosting employee motivation, updating technology infrastructure, optimizing processes, and managing customer inquiries efficiently will address the root causes of service delays and boost ABC Automotive’s overall service quality.

Enhance Internal Communication

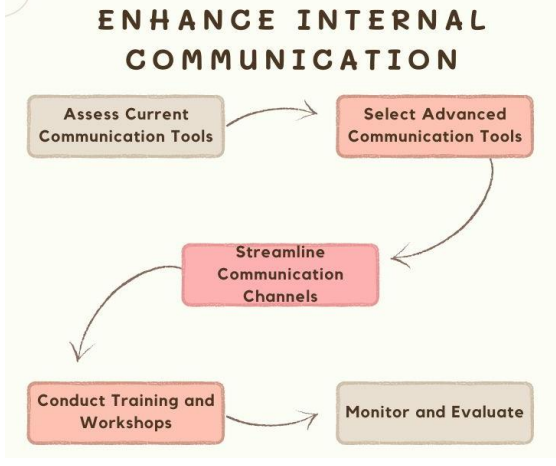


Figure 9: Enhance Internal Communication

To enhance internal communication at ABC Automotive, it is essential to begin with a comprehensive assessment of current communication tools and practices. This evaluation will identify any gaps or inefficiencies that may hinder effective information flow and collaboration within the organization. Understanding these areas needing improvement will guide ABC Automotive in selecting advanced communication tools that best suit their specific needs. Tools like Slack or Microsoft Teams, known for their robust features, can facilitate efficient and clear communication among teams at ABC Automotive, whether in manufacturing, sales, or customer service.

Streamlining communication channels is the next critical step. Establishing clear communication protocols ensures that information is disseminated promptly and accurately across different departments and teams. Defining primary channels for project updates, team discussions, and urgent notifications helps reduce misunderstandings and ensures alignment throughout ABC Automotive.

Conducting regular training sessions and workshops is crucial to enhance communication skills among ABC Automotive employees. These sessions should focus on familiarizing employees with the functionalities of new communication tools and reinforcing adherence to established protocols. By ensuring all employees understand how to leverage these tools effectively, ABC Automotive can minimize resistance to change and facilitate a smooth transition to the updated communication system.

Continuous monitoring and evaluation are vital for sustaining effective communication improvements at ABC Automotive. Gathering feedback from employees on their experiences with the new tools and protocols allows ABC Automotive to identify any challenges or areas for further improvement. Regular reviews based on this feedback and performance data enable ABC Automotive to make necessary adjustments, ensuring that the communication system remains efficient and aligned with organizational goals.

In summary, by following these steps of assessing current tools, selecting appropriate technology, establishing clear protocols, providing training, and ongoing evaluation of ABC Automotive can enhance internal communication significantly. This approach fosters collaboration, improves operational efficiency, and contributes to overall organizational effectiveness in delivering high-quality automotive products and services

Boost Employee Motivation

Figure 10: Step to Boost Employee Motivation

To enhance employee motivation at ABC Automotive, a comprehensive approach to employee engagement and development can be implemented. Firstly, conducting a thorough assessment of current engagement practices within ABC Automotive would be essential. This evaluation would help identify specific areas where improvements can be made, such as enhancing existing incentives, recognition programs, and career development opportunities that resonate well with employees in the automotive industry.

Setting clear performance metrics and goals is crucial at ABC Automotive. By establishing transparent expectations, employees can better understand their roles and track their progress effectively. This clarity not only motivates employees but also ensures their efforts are aligned with ABC Automotive's organizational objectives, contributing to overall productivity and goal attainment. Implementing robust recognition and reward systems is equally important. ABC Automotive can introduce formal awards ceremonies or informal recognition programs that celebrate outstanding performance and reinforce positive behaviours among employees. Recognizing achievements in various aspects of their work fosters a culture of appreciation and encourages continuous improvement.

Offering ample career development opportunities is another key strategy for ABC Automotive. Providing training programs, skill enhancement initiatives, and opportunities for professional growth not only empowers employees but also demonstrates ABC Automotive's commitment to their long-term success and career advancement within the company. Continuous feedback loops are integral to maintaining effective engagement programs at ABC Automotive. Regularly seeking input from employees through surveys, focus groups, or one-on-one discussions allows ABC Automotive to gauge the impact of engagement efforts and make necessary adjustments. This ongoing feedback ensures that engagement strategies remain relevant, responsive to evolving employee needs, and aligned with ABC Automotive's overarching goals.

In summary, by integrating these strategies of comprehensive engagement programs, clear performance metrics, robust recognition and reward systems, career development opportunities, and continuous feedback of ABC Automotive can cultivate a motivated and productive workforce. This approach not only enhances employee satisfaction and retention but also drives organizational success in the competitive automotive industry.

Update Technology Infrastructure

Figure 11: Step to Update Technology Infrastructure

To update its technology infrastructure effectively, ABC Automotive can begin by conducting a comprehensive audit of its current technological setup. This audit would help identify any outdated software, hardware, or systems that may be impeding operational efficiency or posing security risks. Given ABC Automotive's role in the automotive industry, areas such as manufacturing processes, sales systems, and customer service platforms would be key focus areas for assessment.

Following the audit, ABC Automotive should proceed with researching and selecting new software solutions that align with its strategic goals and can seamlessly integrate with existing systems. This could involve upgrading manufacturing automation software, enhancing customer relationship management systems, or implementing advanced analytics tools for sales forecasting and inventory management.

Developing a detailed implementation plan is crucial to ensure a smooth transition. This plan should clearly outline timelines, responsibilities for each phase of implementation, and key milestones to monitor progress effectively. By establishing these parameters, ABC Automotive can minimize disruptions to daily operations and ensure a coordinated effort across different departments and teams. Providing comprehensive training for employees on the new technology is essential for successful adoption. Training sessions should not only cover technical aspects but also emphasize how to leverage the new tools to enhance productivity, customer service efficiency, and overall operational effectiveness. This ensures that employees are well-prepared to utilize the updated technology infrastructure effectively in their respective roles.

Continuous monitoring and optimization are vital post-implementation. ABC Automotive should regularly assess the performance of the new technology solutions to identify any issues early on and make necessary adjustments. This ongoing evaluation should focus on aligning the technology with evolving organizational needs and industry trends, ensuring that it remains efficient and effective over time. By following these structured steps, conducting a thorough audit, selecting suitable solutions, creating a detailed implementation plan, providing comprehensive training, and continuously monitoring and optimizing, ABC Automotive can successfully update its technology infrastructure. This approach will not only support growth and innovation but also enhance operational excellence across its manufacturing, sales, and customer service operations in the competitive automotive market.

Optimize Processes

Figure 12: Step to Optimize Processes

To optimize processes effectively at ABC Automotive, it's crucial to start by thoroughly mapping out existing workflows within departments like manufacturing, sales, and customer service. This process involves documenting each step to pinpoint any bottlenecks or inefficiencies that may hinder productivity or customer satisfaction. By analyzing where delays or redundancies occur, ABC Automotive can identify areas ripe for improvement.

Once inefficiencies are identified, the next step involves redesigning processes to eliminate bottlenecks and enhance overall efficiency. This could include resequencing tasks in the production line, revising approval workflows in sales operations, or standardizing procedures in customer service to streamline operations and reduce unnecessary complexities.

Introducing automated systems will play a pivotal role in ABC Automotive's process optimization journey. Implementing automated tracking and monitoring systems can significantly improve process management by reducing manual errors, speeding up task completion times, and ensuring data accuracy across various operational facets. These systems may range from automated production line monitoring tools to advanced analytics platforms that provide real-time insights into vehicle sales trends or customer service performance metrics. Training staff on these redesigned processes and using automated systems is essential for successful implementation. Comprehensive training sessions should focus on ensuring employees understand their roles within updated workflows and how to effectively utilise automated tools to maximise efficiency and maintain high standards of quality and service.

Continuous monitoring and review are integral to sustaining optimized processes at ABC Automotive. Regularly evaluating the performance of new processes and gathering feedback from employees and stakeholders will provide insights into areas needing adjustment or further enhancement. This ongoing evaluation ensures that processes remain aligned with ABC Automotive's organizational goals and are adaptable to evolving business needs, fostering continuous improvements in efficiency, agility, and overall performance.

By following these structured steps, starting with mapping existing processes, redesigning workflows, implementing automated systems, training staff, and monitoring performance of ABC Automotive can achieve significant enhancements in operational efficiency, customer satisfaction, and overall competitiveness in the automotive industry.

Manage Customer Inquiries Efficiency

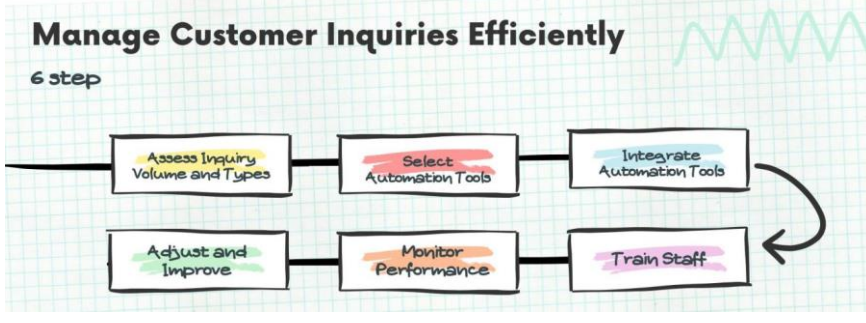


Figure 13: Steps to Manage Customer Inquiries Efficiency

To enhance customer inquiry management at ABC Automotive, a structured approach can be adopted, starting with assessing the volume and types of inquiries received. ABC Automotive, being a prominent automotive manufacturer in Malaysia, likely receives inquiries ranging from sales

inquiries about their car models to service-related questions and technical support.

Selecting appropriate automation tools, such as chatbots and AI-driven response systems, could significantly benefit ABC Automotive. These tools can handle routine inquiries about vehicle specifications, booking test drives, service appointment scheduling, and FAQs about maintenance and warranties. They can also streamline the process of providing consistent and accurate information to customers around the clock.

Integrating these automation tools into ABC Automotive's existing customer service infrastructure would involve ensuring compatibility with their CRM systems and service portals. This integration aims to provide a seamless customer experience where automated responses complement the support provided by human agents, enhancing efficiency and responsiveness.

Training ABC Automotive's customer service staff on how to utilize and oversee these automated systems is crucial. It ensures that employees are adept at managing customer interactions that require a human touch, such as complex technical inquiries or personalized customer service needs. This training would emphasize maintaining high service standards and effectively leveraging automation to improve overall customer satisfaction.

Regularly monitoring the performance of these automated systems at ABC Automotive would involve tracking metrics such as response times, customer satisfaction scores, and the volume of inquiries handled by automation versus human agents. Gathering customer feedback about their experiences with automated responses would also provide insights into areas needing improvement or adjustment.

Continuous improvement efforts would focus on refining the automation tools based on performance data and customer feedback. This iterative approach ensures that ABC Automotive's customer inquiry management processes remain efficient, responsive, and aligned with evolving customer expectations.

By implementing these strategies tailored to ABC Automotive's specific needs, the company can effectively manage customer inquiries, enhance service delivery, and strengthen customer relationships, ultimately driving satisfaction and loyalty among car buyers and owners.

Estimated Data after Improvement

Issue	**Frequency**	**Percentage (%)**	**Cumulative Frequency**	**Cumulative percentage (%)**
Poor Communication	8	32	8	32
Low Employee Motivation	8	32	16	64
Outdated Software	3	12	19	76
Delay in Upgrade Procedure	4	16	23	92
High Volume of Customer Inquiries	2	8	25	100
Total	**25**	**100**		

Table 4: Data Distribution

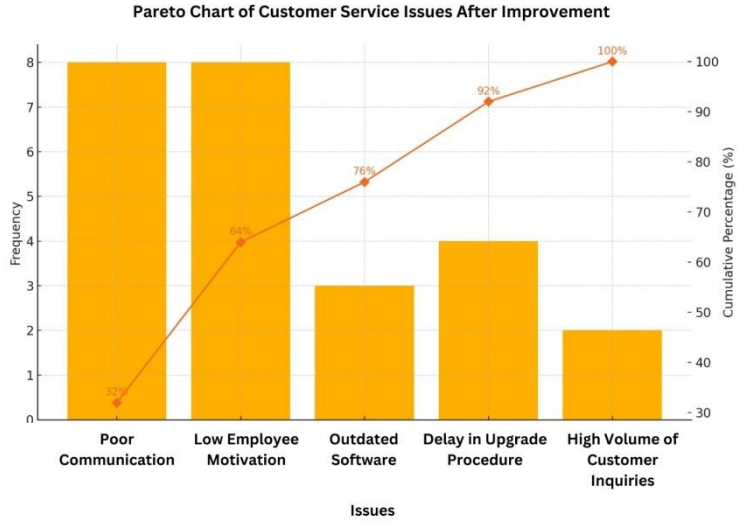


Figure 14: Pareto Chart

Implementing the improvements at ABC Automotive is projected to lead to significant advancements in various customer service issues, as depicted in the estimated data on the Pareto chart. The chart illustrates that after the improvements, poor communication is expected to show a frequency of 8, constituting 32% of the total issues. Advanced communication tools, such as collaboration platforms, team huddles, and unified dashboards, are anticipated to facilitate clearer and more timely information flow among team members. Similarly, the issue of low employee motivation, also expected to have a frequency of 8 (32%), is projected to see considerable improvement. Features like performance dashboards, gamification, training modules, and recognition systems are expected to boost employee engagement and motivation, reducing the frequency of motivation-related issues.

Outdated software, projected to have a frequency of 5 (20%) after the improvements, is expected to be mitigated by providing scalable infrastructure, APIs, integrations, and a cloud-based solution, ensuring ABC Automotive's technology remains current and efficient. Additionally, delays in the upgrade procedure, anticipated to have a frequency of 4 (16%), are projected to be significantly reduced through process optimization features, including workflow automation, real-time analytics, and customizable workflows. The least frequent issue, high volume of customer inquiries, is expected to have a frequency of 3 (12%). Efficient customer inquiry management tools, such as ticketing systems, AI-driven automation, knowledge bases, and integrated CRM, are anticipated to enhance the handling of customer inquiries, leading to better customer satisfaction.

Overall, the cumulative percentage line on the chart demonstrates that addressing these top issues through improvements is projected to resolve 76% of the total problems by addressing just the top three categories and 100% when all five are considered. This indicates a substantial projected operational efficiency and customer service improvement at ABC Automotive, showcasing the expected effectiveness of the implemented changes in resolving critical issues.

Recommendation

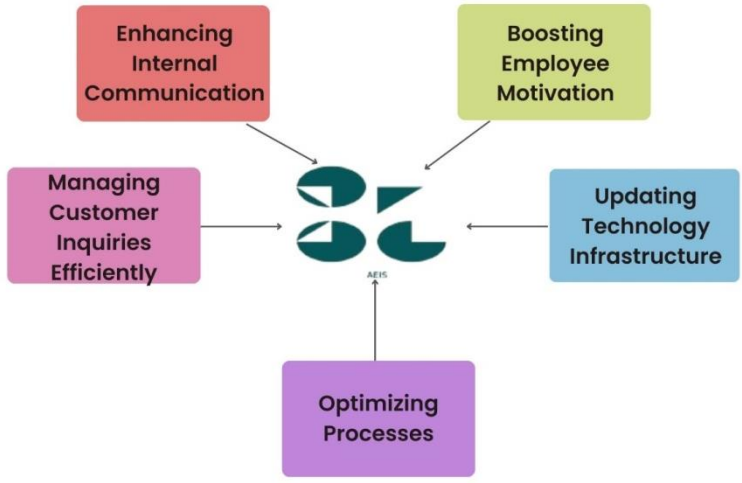


Figure 15: The Most Suitable System That Integrates All Methods

To effectively address the identified customer service issues at ABC Automotive Service Center, it is recommended to implement an integrated customer service management system, such as Advanced Enterprise Integration System (AEIS). This system is renowned for its comprehensive features, which align well with the five methods outlined to improve customer service: enhancing internal communication, boosting employee motivation, updating technology infrastructure, optimizing processes, and managing customer inquiries efficiently.

Method	Description	AEIS Features
Enhancing Internal Communication	Implementing advanced communication tools and streamlining communication channels to ensure timely and clear information flow among team members.	**Collaboration Tools:** Allows internal communication and collaboration among team members within the platform.
		Unified Platform: Centralized dashboard for all communication.
		Team Huddles: Facilitates real-time communication among team members.
		Internal Notes and @mentions: Enables targeted communication within tickets.
Boosting Employee Motivation	Providing recognition and rewards, clear performance metrics, and career development opportunities.	**Performance Dashboards:** Tracks individual and team performance.
		Gamification: Recognition badges and leaderboards to motivate employees.
		Training Modules: Built-in training and onboarding resources.

		Recognition and Reward Systems: Formal awards and informal recognition programs to celebrate achievements.
Updating Technology Infrastructure	Conducting an audit, selecting new solutions, creating an implementation plan, and continuous optimization.	**Scalable Infrastructure**: Easily integrates with existing systems and scales with the organisation.
		APIs and Integrations: Connects with various business tools like CRM, ERP, and analytics platforms.
		Cloud-Based Solution: Ensures up-to-date technology without significant downtime.
Optimizing Processes	Mapping existing workflows, redesigning processes, implementing automation, and continuous monitoring and review.	**Workflow Automation:** Automates repetitive tasks and workflows, such as ticket routing and escalation.
		Analytics and Reporting: Real-time insights and performance metrics to identify bottlenecks and areas for improvement.
		Customizable Workflows: Allows customization of workflows to match specific business processes and requirements.
		Process Documentation: Customizable workflows and standardized procedures ensure consistency and clarity in operations.
		Automated Tracking and Monitoring Systems: Reduces manual errors and speeds up task completion times.
Managing Customer Inquiries Efficiently	Assessing inquiries, selecting automation tools, integrating them, training staff, and continuous monitoring and improvement.	**Ticketing System:** Centralizes customer inquiries from various channels into a single platform.
		AI-Driven Automation: Automates responses to common customer inquiries, providing instant support. Chatbots and AI response systems handle routine inquiries, allowing human agents to focus on complex issues.
		Knowledge Base: Provides a self-service portal with FAQs, guides, and articles for customers and employees.
		Customer Feedback and Surveys: Collects feedback directly from customers after interactions, analyses customer satisfaction data for continuous improvement.

		Omni-Channel Support: Supports multiple communication channels including email, chat, phone, and social media.
		Integrated CRM: Seamlessly integrates with existing CRM systems to provide a unified view of customer interactions and history.
		Continuous Monitoring and Optimization: Regular assessment of the performance of new processes and gathering feedback from employees and stakeholders ensures processes remain aligned with organizational goals.

Table 5: Advanced Enterprise Integration System (AEIS) Functions

Table 5 showcases some key functions captured from the Advanced Enterprise Integration System (AEIS) demo.

Figure 16: Forecast Future Inbound Volume

The Forecast Future Inbound Volume function (Figure 16) enables the prediction of incoming customer inquiries, aiding in better planning and resource allocation.

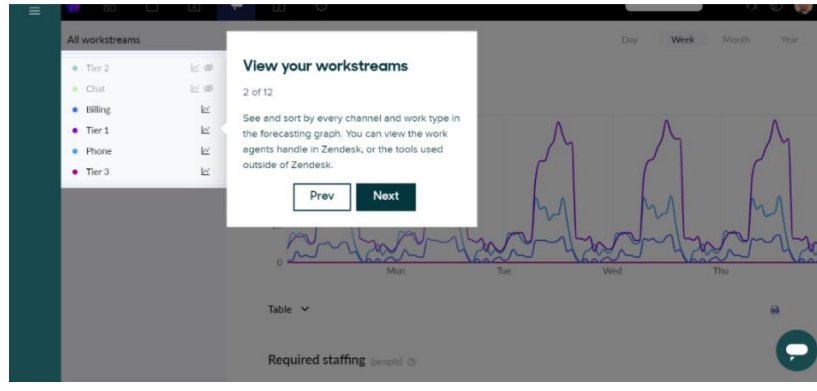
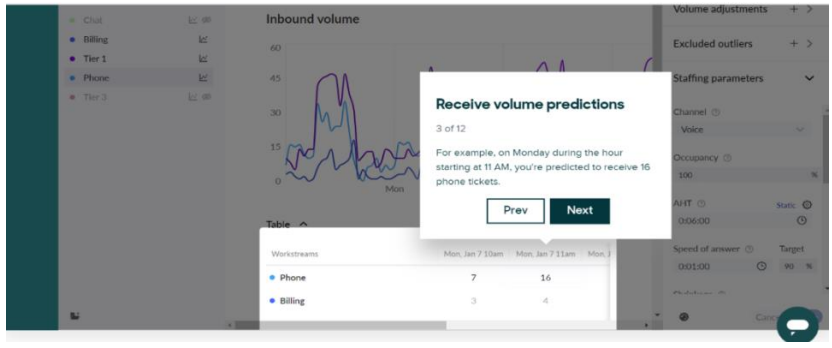


Figure 17: Step to Track Workstreams

The Step to Track Workstreams feature (Figure 17) monitors various workstreams, ensuring that all tasks are tracked and managed efficiently.



The Volume Predictions function (Figure 18) provides detailed forecasts of inquiry volumes, allowing the team to prepare and allocate resources accordingly.

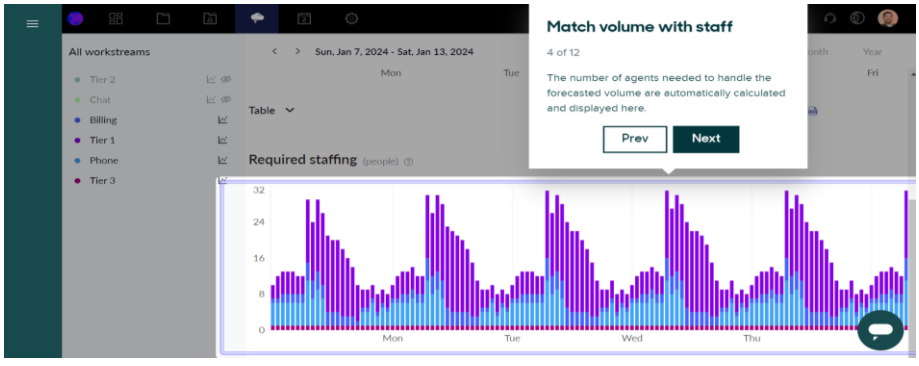


Figure 19: Match Volume with Staff

The Match Volume with Staff feature (Figure 19) optimizes workforce management by ensuring the number of staff members is appropriately matched to the volume of inquiries.

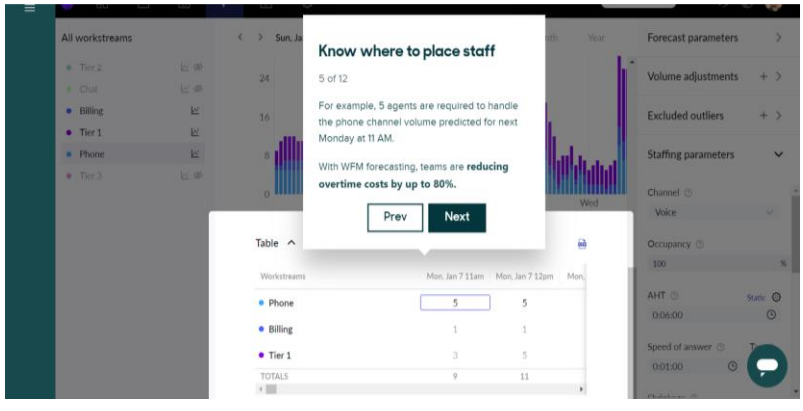


Figure 20: Know Where to Place Staff

The Know Where to Place Staff function (Figure 20) strategically places staff based on the predicted inquiry volumes, ensuring optimal coverage.

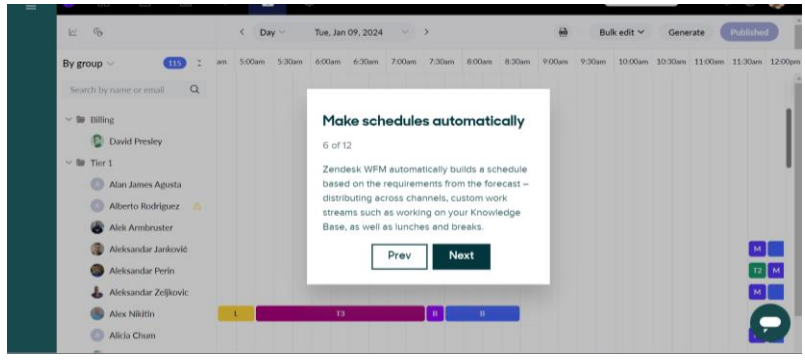


Figure 21: Make Schedules Automatically

The Make Schedules Automatically feature (Figure 21) automates the scheduling process, saving time and reducing errors.

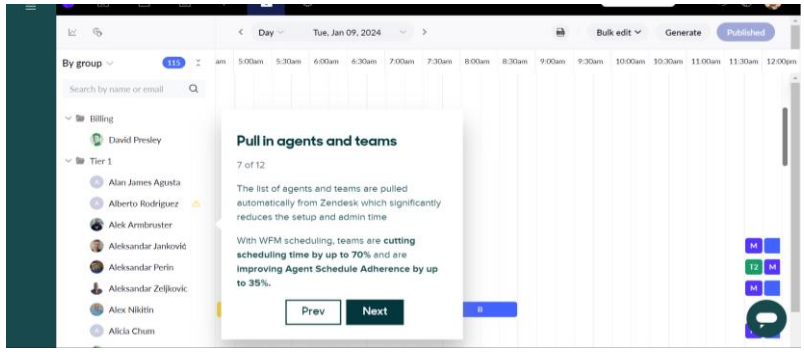


Figure 22: Pull in Teams

Pull in Teams (Figure 22) allows for seamless integration and pulling in of various teams to handle inquiries effectively.

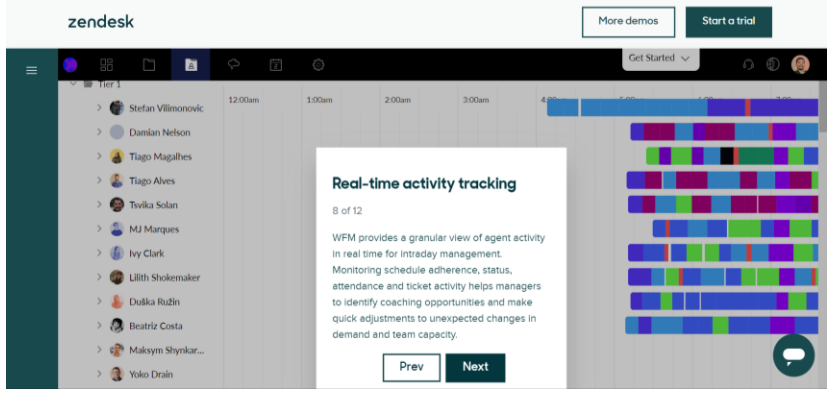


Figure 23: Real-Time Activity Tracking

Real-Time Activity Tracking (Figure 23) monitors the real-time activities of staff, ensuring smooth operations.

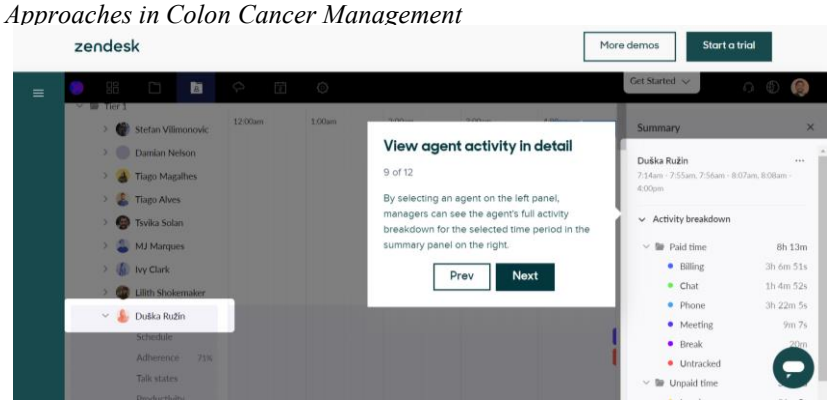


Figure 24: View Staff Activity in Detail

The View Staff Activity in Detail function (Figure 24) provides a detailed view of individual staff activities, aiding in performance monitoring and management.

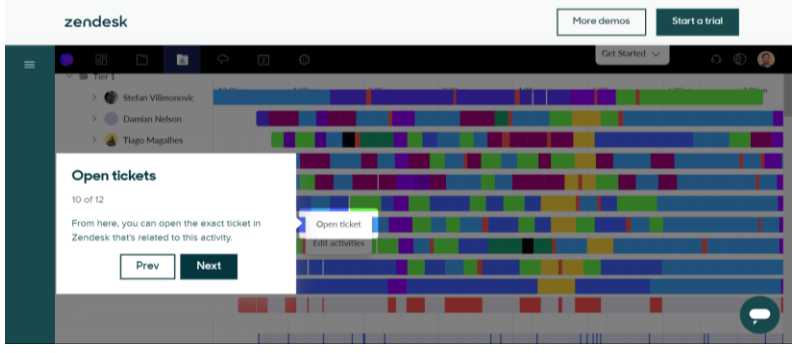


Figure 25: Open Tickets

The Open Tickets feature (Figure 25) displays all open tickets, ensuring that no customer inquiry is missed, and all are addressed promptly.

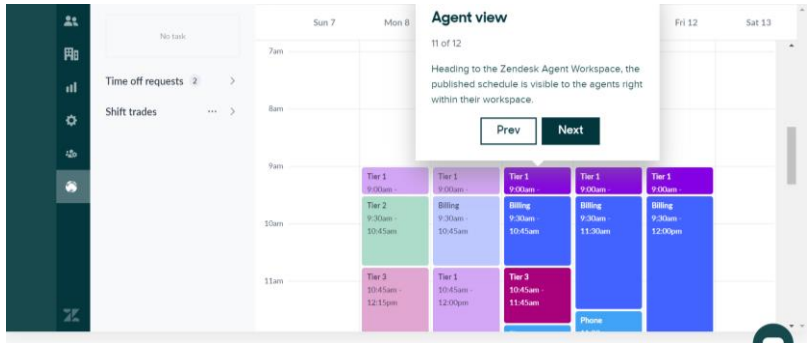


Figure 26: Staff View

Finally, the Staff View function (Figure 26) provides a comprehensive view of staff activities and their current status, aiding in better management and coordination.

To summarise, this study systematically investigated the critical quality service issues prevalent within ABC Automotive's customer service centres, specifically focusing on customer service

response times, the clarity of communication, and the adequacy of post-service support. The primary aim was to understand how these challenges impact customer satisfaction and loyalty, and to subsequently propose actionable strategies for improvement.

The findings explicitly demonstrate that delays in customer service response, coupled with ambiguous communication regarding service status and insufficient post-service assistance, significantly undermine the customer experience. These issues not only lead to diminished customer satisfaction but also pose a substantial threat to long-term customer loyalty in a highly competitive automotive market. The research highlights that customers expect timely, transparent, and comprehensive interactions throughout their service journey, from initial contact to post-service follow-up.

By identifying these specific pain points, this study provides ABC Automotive with a clear roadmap for enhancing its service quality. Implementing strategies that prioritise prompt responses, ensure clear and consistent communication, and establish robust post-service support mechanisms will be crucial. Such improvements are not merely operational enhancements but are fundamental to fostering trust, building stronger customer relationships, and ultimately securing a sustainable competitive advantage. Furthermore, the insights derived from this case study offer valuable lessons for other automotive service centers and businesses striving for continuous improvement in their customer-centric operations. Addressing these service quality dimensions is essential for any organization committed to excelling in customer satisfaction and maintaining a loyal customer base.

References

A. Croteau and P. Li, "Critical success factors of CRM technological initiatives," Canadian Journal of Administrative Sciences, vol. 20, pp. 21-34, 2003.

Al-Hawari, M. and T. Ward, 2006. The Effect of Automated Service Quality on Australian Banks' Financial Performance and the Mediating Role of Customer Satisfaction. Marketing Intelligence and Planning, 24 (2): 127-147.

Andreassen, T. W., & Olsen, L. L. (2008). The impact of customers' perception of varying degrees of customer service on commitment and perceived relative attractiveness. Managing Service Quality: An International Journal, 18(4), 309–328.

A. S. Lo, L .D. Stalcup, and M. A. Lee, "Customer Relationship Management for Hotels in Hong Kong," International Journal of Contemporary Hospitality Management, vol. 22, 2009.

Bouman, M., & Wiele, T. van der. (1992). Measuring service quality in the car service industry: Building and testing an instrument. International Journal of Service Industry Management, 3(4), 4–16.

Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. European Journal of Marketing, 36(7/8), 811–828.

Chang, W., Park, E.J. and Chaiy, S. (2010), "How does CRM technology transform into organizational performance? A mediating role of marketing capability", Journal of Business Research, Vol. 63,pp. 849-855.

Chen, I.J., and Popovich, K., (2003), "Understanding customer relationship management (CRM) People, process and technology", Business Process Management Journal, Vol. 9 No. 5, pp. 672-688.

Cina, C., 1989. Creating an Effective Customer Satisfaction Program. The Journal of Consumer Marketing, 6 (4): 31-40.

Deming, W. E. (1986). Out of the Crisis. MIT Press.

Ellinger, A. E., Daugherty, P. J., & Plair, Q. J. (1999). Customer satisfaction and loyalty in supply chain: the

role of communication. Transportation Research. Part E, Logistics and Transportation Review, 35(2), 121–134. Retrieved from https://doi.org/10.1016/s1366-5545(99)00006-x

E. J. Ragins and A. J. Greco, "Customer Relationship Management and E-Business: More Than a Software Solution," Review of Business, vol. 24, p. 25, Winter2003 2003.

Etemad-Sajadi, R., & Rizzuto, D. (2013). The antecedents of consumer satisfaction and loyalty in fast food industry: A cross-national comparison between Chinese and Swiss consumers. International Journal of Quality & Reliability Management, 30(7), 780–798. doi:10.1108/IJQRM-May-2012-0069

Fabien, L., 2005. Design and Implementation of a Service Guarantee. Journal of Services Marketing, 19(1): 33-38.

Fang, Y. H., Chiu, C. M., & Wang, E. T. G. (2011). Understanding customers' satisfaction and repurchase intentions: An integration of IS success model, trust, and justice. Internet Research, 21(4), 479 – 503.

F. Buttle, Customer relationship Management: Concepts and Tools: Oxford:Elsevier, 2004.

Gans, N., Koole, G., & Mandelbaum, A. (2003). Telephone call centers: Tutorial, review, and research prospects. Manufacturing & Service Operations Management, 5(2), 79-141.

Genç, R. (2017). The Importance of Communication in Sustainability & Sustainable Strategies. Procedia Manufacturing, 8, 511516. Retrieved from https://doi.org/10.1016/j.promfg.2017.02.065

Gro¨nroos C. A Service Quality Model and Its Marketing Implications. European Journal of Marketing, 1984; 18(4):36–44. https://doi.org/10.1108/EUM0000000004784

Hellier, P. K., Geursen, G. M., Carr, R. A., & Rickard, J. A. (2003). Customer repurchase intention, A general structural equation model. European Journal of Marketing, 37(11), 1762-1800.

Ilija Hristoski, Olivera Kostoska, Zoran Kotevski and Tome Dimovski, 2017. Causality of Factors Reducing Competitiveness of e-Commerce Firms. Balkan and Near Eastern Journal of Social Sciences. Retrieved from: https://www.researchgate.net/publication/317196193_Causality_of_Factors_Reducing_Competitiveness_of_e-Commerce_Firms

Jayachandran, S., Sharma, S., Kaufman, P., & Raman, P., (2005), "The role of relational information processes and technology use in customer relationship management", Journal of Marketing, 69(4), 177–192.

J.-M. Moutot and G. Bascoul, "Effects of Sales Force Automation Use on Sales Force Activities and Customer Relationship Management Processes," Journal of Personal Selling & Sales Management, vol. 28, pp. 167-184, 2008.

Kahar,A.S.A., 2008. Model kepuasan pelanggan bagi laman web e-runcit, Master thesis, Universiti Teknologi Malaysia, Johor.

Khalid Rababah, Haslina Mohd, and Huda Ibrahim (2011). Customer Relationship Management (CRM) Processes from Theory to Practice: The Pre-implementation Plan of CRM System. Retrieved from: https://d1wqtxts1xzle7.cloudfront.net/31400708/process-libre.pdf?1392351499=&response-content-disposition=inline%3B+filename%3DProcess.pdf&Expires=1719376947&Signature=MkDsPg5KPbQQxESxUdSxT4MF~EMCLEsauOFme~uTDr5MaXHCknG3HWkZbgIvrWVlBc0BpEjDIIMPBupZFFe2LvhP0cdY9NVvJaaU2rHWEvSuH2AkgzzXT~wkq9dOfP-AV3SksO6Mg0RCOB9zpd8OhW6zuK4PGGKBLqrPLDq~ir1458yJGufm2IiEDsIoSpIS9g9if1087lb5tzhKRPsFdbq8Xsw8w~GpkWxf0dgRnO1oCoiplxwBCgQyjVS60y2rWIJcOL~FQEbMXr7rReryvA6ISg-XcXmQO5t3JbY19HrdmVJqyPkcdUu5q387Uo7juti4WfsUZiLBkqZ4tETX6Q__&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA

Kotler, P., & Armstrong, G. (2008). Principles of Marketing (13th Ed.). Pearson Prentice Hall.

Legros, G., & Choi, H. (2020). The impact of response time on customer satisfaction and retention in online retailing. International Journal of Retail & Distribution Management, 48(3), 253-267.

L. Ryals and S. Knox, "Cross-Functional Issues in the Implementation of Relationship Marketing Through Customer Relationship Management," European Management Journal, vol. 19, p. 534-542, 2001.
Luca Liliana (2016). A new model of Ishikawa diagram for quality assessment. 20th Innovative Manufacturing Engineering and Energy Conference (IManEE 2016). Retrieved from: https://iopscience.iop.org/article/10.1088/1757-899X/161/1/012099/pdf
Measuring Service Quality: The SERVQUAL model. YourCX. (2024). Retrieved from: https://yourcx.io/en/blog/2024/02/measuring-service-quality-servqual-model/
Mittal, V., & Kamakura, W. A. (2001). Satisfaction, repurchase intent, and repurchase behavior: Investigating the moderating effect of customer characteristics. Journal of Marketing Research, 38(1), 131-142.
M. M. M. Jagtap and S. N. Teli (2015) "PDCA Cycle As TQM Tool-continuous improvement of warranty," Int. J. Recent Technol. Mech. Electr. Eng., vol. 2, no. 4, pp. 1–5. Retrieved from: http://www.ijrmee.org/index.php/ijrmee/a rticle/view/210.
Mwita, J.S., 2000. Performance Management Model: A System-Based Approach to Public Service. International Journal of Public Sector Management, 13 (1): 19-37.
Noone, B.M. andA.S. Mattila, 2009. Consumer Reaction to Crowding for Extended Service Encounters. Managing Service Quality, 19 (1): 31-41.
Oliver, R. L. (1999). Whence consumer loyalty? Journal of Marketing, 63(4), 33–44
Parasuraman, A., Zeithaml, V.A., & Berry, L.L. (1985). A conceptual model of service quality and its implication for future research. Journal of Marketing, 49, 41–50.
Parasuraman A, Zeithaml V A, Berry L L. (1988). SERVQUAL: a Multiple-item Scale for Measuring Consumer Perceptions of Service Quality. Journal of Retailing, 64(1):12–40.
P. Kotler and G. Armstrong, 1996. Principles of marketing. Prentice-Hall.
Rapp, A., Trainor, K. J., & Agnihotri, R., (2010), "Performance implications of customer linking capabilities: Examining the complementary role of customer orientation and CRM technology", Journal of Business Research, 63(11), 1229–1236.
R. K. Srivastava, T. A. Shervani, and L. Fahey, "Marketing, Business Processes, and Shareholder Value: An Organizationally Embedded View of Marketing Activities and the Discipline of Marketing," Journal of Marketing, vol. 63, pp. 168-179, 1999.
Roberts, K., Varki, S., & Brodie, R. (2003). Measuring the quality of relationships in consumer services: An empirical study. European Journal of Marketing, 37(1/2), 169–196. doi:10.1108/03090560310454037
Sarah Isniah, Humiras Hardi Purba, Fransisca Debora (2020). Plan do check action (PDCA) method: literature review and research issues. Jurnal Sistem dan Manajemen Industri Vol 4 No 1 July 2020, 72-81. Retrieved from: https://e-jurnal.lppmunsera.org/index.php/JSMI/article/download/2186/1438
Tan, C. L., & Ogawa, T. (2017). The impact of service delays on customer satisfaction: An empirical study. Journal of Service Management, 28(3), 417-430.
The impact of customer satisfaction, customer experience and customer loyalty on Brand Power: Empirical Evidence from Hotel Industry. (n.d.). Retrieved from https://www.researchgate.net/publication/328219595_The_impact_of_customer_satisfaction_customer_experience_and_customer_loyalty_on_brand_power_Empirical_evidence_from_hotel_industry
The PDCA cycle: A practical approach to problem-solving. businessmap. (2024). https://businessmap.io/lean-management/improvement/what-is-pdca-cycle
Thompson, S.H., Paul Devadoss, B., and Shan, L., (2006), "Towards a Holistic Perspective of Customer Relationship Management (CRM) Implementation: a Case Study of the Housing and Development Board", Singapore. Decision Support Systems, 42, 1613– 1627.
Wong, A., & Sohal, A. (2002). Customers' perspectives on service quality and relationship quality in retail

encounters. Managing Service Quality, 12(6), 424–433. doi:10.1108/09604520210451902
Wong, A., & Sohal, A. (2003). Service quality and customer loyalty perspectives on two levels of retail relationships. Journal of Services Marketing, 17(5), 495–513. doi:10.1108/08876040310486285
Valarie A. Zeithaml, 1987. Defining and relating prices, perceived quality and perceived value. Marketing Science Institute.
Welcome to the official ABC Automotive website. (n.d.). https://www.ABC Automotive.com.my/
Yeoh Hooi Chin (2010). The Relationship Between Customer Satisfaction, Brand Image And Customer Loyalty from the Perspective of Proton's Customers. http://eprints.utm.my/32973/5/YeohHooiChinMFPPSM2010.pdf
Yieh, K., Chiao, Y.-C., & Chiu, Y.-K. (2007). Understanding the antecedents to customer loyalty by applying structural equation modeling. Total Quality Management, 18(3), 267–284.
Zeithaml, V.A., &Bitner, M.J. (1996). Service marketing. New York, NY: McGraw-Hill.