
**HOW CAN ORGANIZATIONS PROMOTE THE ADOPTION OF INNOVATIVE QUALITY
ASSURANCE TOOLS APPLIED TO CUSTOMER SERVICE?**

Patricia Wellisch

Dissertation

Master's in Innovation and Technological Entrepreneurship

Supervised by

Prof. José Pedro Coelho Rodrigues

2024

Honor Pledge

I declare that the present research proposal for my master dissertation is of my own authorship and has not been previously used in another course or curricular unit of this or any other institution. References to other authors (statements, ideas, thoughts) scrupulously respect the rules of attribution and are duly indicated in the text and the bibliographical references, in accordance with the referencing rules. I am aware that the practice of plagiarism and self-plagiarism constitute an academic offence.

Acknowledgments

Firstly, I must sincerely thank my research supervisor, Professor José Pedro Coelho Rodrigues. Without his understanding and encouragement, I would still be stuck in the first line of this research.

To my colleagues, thank you for your constant support throughout this Master's journey. We did this and suffered together through every project and exam, and I guess we survived.

To my coworkers, your patience and understanding as I balanced work and study have been nothing short of heroic.

A special thanks to my family for their encouragement. Your delusional belief in me has kept me grounded and motivated.

To my friends, who have been there through the past two years' highs and monthly lows—thank you. Without your support and laughs, I doubt I would have had the strength to complete this work.

Lastly, a collective thank you to all the professors in the MIET program. Special mention to those whose assignments made me question my life choices.

I appreciate everyone who has played a role in this journey. Thank you all for being in my community.

Abstract

In today's rapidly changing customer service industry, implementing innovative quality assurance tools is critical for maintaining high standards and efficiency. This study looks into the elements that influence the acceptance and effective use of such tools by performing a case study of the the transition from one quality assurance tool to a newer one with another perspective over quality assurance in Company X. The study was based on the Technology Acceptance Model (TAM) and the paradigm for organizational implementation effectiveness. The goal was to identify the determinants of organizational elements and their impact on effective implementation.

A qualitative approach was employed, utilizing semi-structured interviews with employees who were involved in the transition. The interviews explored various dimensions of acceptability and effective use, including user experiences, communication of changes, training and support, and suggestions for improvement. Findings indicate that the perceived usefulness and ease of use, as highlighted by TAM, significantly impact the acceptance of a new tool. Additionally, compatibility and support from management were crucial for successful implementation.

The study emphasized the importance of a supportive organizational culture and effective communication during adoption. However, the primary limitation of this research is that the proposed framework needs to be empirically tested in different environments. Future research must validate this framework across various settings and explore its applicability to other innovative customer service tools beyond quality assurance.

Keywords: Technology Acceptance Model, innovation adoption, quality assurance, customer service, organizational implementation.

Resumo

Na indústria de atendimento ao cliente, que está hoje em rápida mudança, a implementação de ferramentas inovadoras de garantia de qualidade é crítica para manter elevados padrões e eficiência. Este estudo investiga os elementos que influenciam a aceitação e a utilização eficaz dessas ferramentas, realizando um estudo de caso da transição para uma nova ferramenta de garantia da qualidade, na Empresa X. O estudo foi baseado no Modelo de Aceitação de Tecnologia (TAM) e no paradigma de eficácia de implementação organizacional. O objetivo foi identificar os determinantes dos elementos organizacionais e seu impacto numa implementação eficaz da ferramenta nova.

Foi utilizada uma abordagem qualitativa, com entrevistas semiestruturadas realizadas a funcionários que vivenciaram a transição. As entrevistas exploraram várias dimensões da aceitação e utilização eficaz da ferramenta, incluindo experiências dos usuários, comunicação das mudanças, formação e apoio, e sugestões para melhorias. Os resultados indicam que a utilidade percebida e a facilidade de utilização, conforme destacado pelo TAM, impactaram significativamente a aceitação de uma nova ferramenta. Além disso, a compatibilidade e o apoio da gestão foram cruciais para uma implementação bem-sucedida.

O estudo destacou a importância de uma cultura organizacional de apoio e comunicação eficaz durante a adoção. No entanto, a principal limitação desta pesquisa é que o quadro proposto precisa de ser testado empiricamente em diferentes ambientes. Pesquisas futuras devem validar este quadro em vários cenários e explorar a sua aplicabilidade a outras ferramentas inovadoras de atendimento ao cliente além da garantia de qualidade.

Palavras-chave: Modelo de Aceitação de Tecnologia, adoção de inovação, garantia de qualidade, atendimento ao cliente, implementação organizacional

Index

Honor Pledge.....	1
Acknowledgments.....	3
Abstract.....	5
Resumo.....	7
Index of Tables.....	11
Index of Figures.....	13
1. Introduction.....	9
1.1. Dissertation Proposal.....	9
1.2. Research Motivation.....	9
2. Literature review.....	11
2.1. Methodology.....	11
2.2. Literature Review Table.....	12
2.3. Theoretical framework.....	18
2.3.1. What leads users to accept or reject a tool? Technology Acceptance Model (TAM).....	20
2.3.2 The challenge of organizational innovation implementation.....	21
3. Method.....	23
3.1. Problem and Research Question.....	23
3.2. Method.....	23
3.2.1. Data Collection and Analysis.....	24
4. Results Analysis.....	27
4.1. Results presentation.....	27
4.2. How do employees use Tool B, and for what purposes?.....	27
4.3. Experiences with the transition from the former tool, Tool A, to Tool B.....	28
4.4. Perceptions of how the change was communicated.....	29
4.5. Satisfaction with the support received for Tool B.....	31
4.6. Opinions on training and support materials provided for Tool B.....	32
4.7. Major difficulties encountered in using Tool B.....	33
4.8. Feedback on what aspects were better in Tool A compared to Tool B and vice versa.....	34
4.9. Suggestions for improvement in transitioning from Tool A to Tool B.....	35
4.10. Insights into the approach used for creating a guide to implement Tool B in the future.....	36
5. Conclusions.....	43
5.1. Research Conclusions.....	43
5.2. Implications for Practice.....	44
5.3. Limitations and Future Research.....	44
References.....	47

Index of Tables

Table 1. Elaborated literature review table of the nine chosen articles.....	13
Table 2: Summary of key topics and results.....	37

Index of Figures

Figure 1. A screenshot of the retrieved bibliography research results via the SCOPUS platform utilizing the chosen keywords (14th January 2024).....	11
Figure 2. A screenshot of the retrieved bibliography research results via the WOS platform utilizing the chosen keywords (14th January 2024).....	12
Figure 3. Technology Acceptance Model based on Davis's (1989).....	20
Figure 4. Determinants and Consequences of Implementation Effectiveness from Klein and Sorra (1996).....	22
Figure 5. Proposed guide for a successful adoption of innovative quality assurance tools.....	42

1. Introduction

Businesses, including the customer service sector, have traditionally seen technological innovation as a strategic tool to extract effective business processes and foster competitive advantage (Nguyen et al., 2013). In particular, quality assurance (QA) tools are used because clients want great, rapid, customized service, creating a demand for new tools. However, adopting these tools can present challenges, ranging from complex user interfaces to a lack of training materials and support responsiveness (Teter, 2024). This study explores the mechanisms of innovation adoption of quality assurance tools in the customer service environment.

1.1. Dissertation Proposal

The dissertation addresses the following research question:

“How can organizations promote the adoption of innovative quality assurance tools applied to customer service?”

The customer service industry has gone through advancements in recent years, and the creation of quality assurance tools is a testament to the industry’s search for efficiency (Cartwright, 2024). However, according to the Diffusion of Innovations theory (DOI), innovation adoption faces some complexities as it involves different stages (Rogers, 2003). It is, therefore, necessary to elaborate a comprehensive exploration to understand the current state of quality assurance tool adoption, the barriers impeding progress, and propose effective strategies that can push innovation to customer service operations.

Quality assurance tools promise not only to streamline processes but also to elevate the overall customer experience. Still, there is reason to believe there is a gap between the potential of these tools and their actual adoption (Foster et al., 2021). This research seeks to bridge this gap by investigating innovation adoption in the customer service industry.

1.2. Research Motivation

The motivation for this research is mainly driven by two points. The first is that quality assurance tools are becoming increasingly important in the customer service industry, as they are used for efficiency and analysis of customer interaction. However, while it is important and efficient, its adoption is not at the level it could be (Valdsalu, 2021).

The second point is that while performing a literature review for this topic, it was found that there is extensive literature on technology adoption models (e.g., Davis, 1989; Rogers,

2003; Venkatesh et al., 2003), and there is a lack of research focusing on adopting quality assurance tools in the customer service industry.

2. Literature review

This literature review's first focus is to identify the key concepts of innovation adoption, mainly what caused the adoption and rejection of a new technology. Also, to identify the most relevant adoption models highlighted in the literature.

2.1. Methodology

A holistic search was conducted using specific keywords. The keywords employed in the databases were 'customer service' and ('adoption' OR 'implementation' OR 'diffusion')'. The keyword 'quality assurance' was removed from the search process due to a lack of results. The platforms used for this search were SCOPUS and Web of Science (WOS).

The search retrieved a total of 1675 articles across both platforms. Specifically, 724 articles were identified in SCOPUS, while 951 were sourced from WOS (Figures 1 and 2, respectively). The search was conducted on both platforms at 14th of January, 2024.

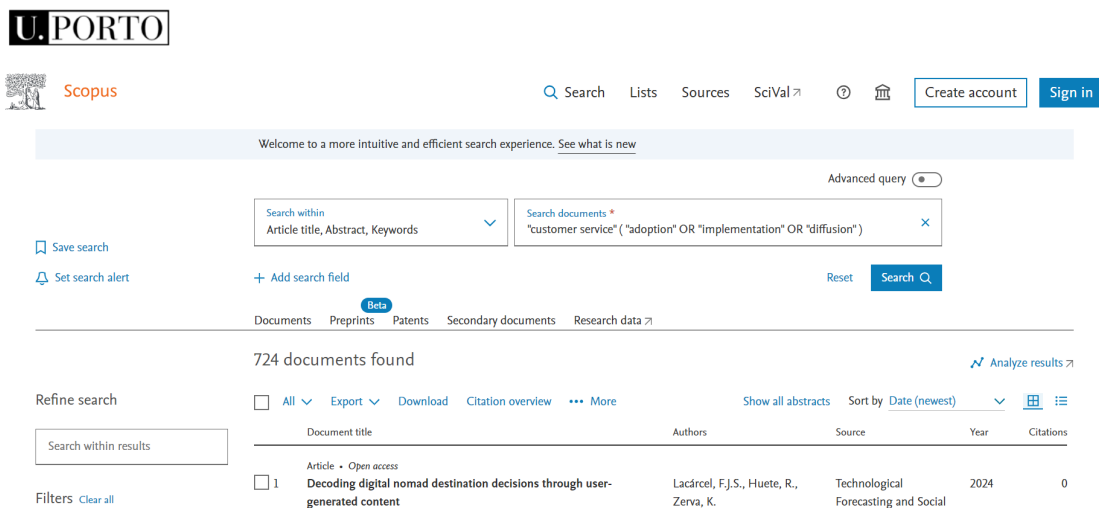


Figure 1. A screenshot of the retrieved bibliography research results via the SCOPUS platform utilizing the chosen keywords (14th January 2024)

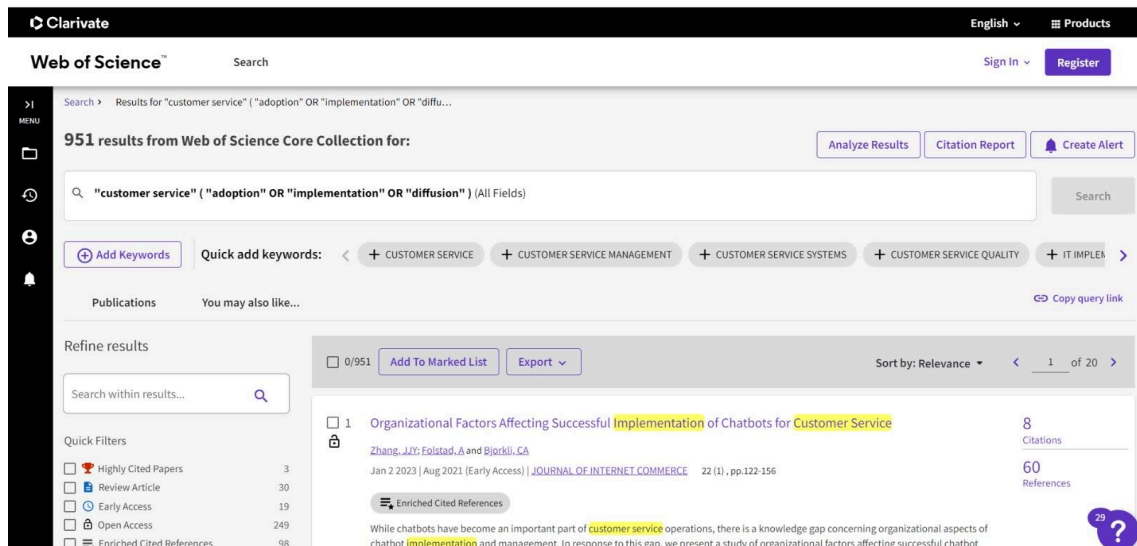


Figure 2. A screenshot of the retrieved bibliography research results via the WOS platform utilizing the chosen keywords (14th January 2024).

The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) methodology were used for the study selection process (Moher D. et al., 2009). From the initial 1675 papers identified across both platforms, 224 were duplicates found in both databases, resulting in 1451 unique articles to analyze.

In the screening phase, 19 articles were selected for further assessment after reviewing the results' titles and assessing their alignment with the research topic. The initial selection criteria included their relevance to customer support and focus on technology adoption. Each article's abstract was analyzed to determine its relevance to the research. During this stage, 8 articles were excluded as they needed to align closely with the study's primary objectives (i.e. not addressing customer support and any level of technology adoption).

During the eligibility assessment, 11 articles were reviewed. After that, 5 articles were excluded as their primary focus wasn't the adoption of innovative tools in the customer service environment, but rather focusing on the tools management. As a result, a total of 6 articles met the criteria.

2.2. Literature Review Table

Table 1 shows an overview of topics studied in the analyzed literature.

Table 1: Elaborated literature review table of the nine selected articles.

Paper Reference	Contribution of Paper	Future Research / Limitations
R. C. Li and M. L. Tee. (2021)	The paper addresses the research question of promoting innovation adoption in the customer support environment by focusing on developing an implementation framework for Automated Customer Support Services (ACSS) within Collaborative Customer Relationship Management (CCRM) systems. The study recognizes the importance of integrating the customer perspective, behavioral trends, data security issues, engagement and responses, and proper maintenance and evaluation of ACSS performance to enhance customer relationships and experiences. By developing a new implementation framework and validating its effectiveness through a questionnaire answered by CRM experts, the paper promotes innovation adoption in the customer support environment by emphasizing the need for a comprehensive approach that considers customer perspectives and experiences in implementing automated support services. The research was quantitative and qualitative.	The study's findings are based on a small sample of CRM experts and may need to be more generalizable to other industries or contexts. Also, it focuses on current customer trends and behaviors, which may change over time. Future research could explore adapting the framework to changing customer trends and preferences. The study does not examine the impact for ACSS on employee roles and responsibilities. Future research could investigate how innovation adoption in the customer support environment affects employee roles and how to manage these changes effectively.
A. Smirnov, M. Pashkin and N. Chilov. (2005)	The paper proposes a personalized customer service management (CSM) system. The system is designed to	While the paper presents the CSM system and its features, it does not extensively

Paper Reference	Contribution of Paper	Future Research / Limitations
	enhance customer support by implementing various features such as fast provision of information about the company's products, multilingual interface, local and web versions of the software, and indexing existing documents against information stored in the database. The goal is to improve the customer experience and facilitate the adoption of innovative practices in customer support. Moreover, it shares the importance of customer profiling and grouping techniques for better recognition of customer requests, which contributes to personalized customer support. By implementing customer and request clustering algorithms, the CSM system aims to understand customer preferences and provide tailored support, promoting innovation adoption in the customer support environment. The research was qualitative.	discuss the impact of these features on innovation adoption in the customer support environment. Future research could investigate user perceptions, satisfaction, and challenges related to adopting and utilizing personalized customer service management systems in the context of innovation adoption.
Anshari, M., & Almunawar, M. N. (2011).	The paper discusses the adoption of CRM as a strategy for managing patient interactions and improving customer support. It also explores the use of Web 2.0 technology to enhance healthcare services and create value for patients. These ideas can be applied to other customer	The papers lack empirical data to support the proposed models and frameworks. The paper is more theoretical in nature and does not provide concrete examples of successful CRM implementation in healthcare

Paper Reference	Contribution of Paper	Future Research / Limitations
	support environments, such as the business sector, to promote innovation adoption. Organizations can improve their customer support by adopting new technologies and strategies and creating a competitive advantage in the market. The research type was quantitative.	organizations. Additionally, the paper does not address the challenges and barriers to implementing CRM in healthcare organizations, which could be important factors to consider when promoting innovation adoption in the customer support environment.
Li, R. C., & Tee, M. L. (2021).	The paper focuses on developing an implementation framework for Automated Customer Support Services (ACSS) in Collaborative Customer Relationship Management Systems (CCRM). The study aims to integrate the customer perspective into ACSS Implementation, identify and address gaps in existing frameworks, and validate the effectiveness of the developed framework through quantitative data validation methods. By doing so, the research promotes innovation adoption in the customer support environment by enhancing customer relationships and experiences through the effective implementation of ACSS. The research type was quantitative.	This study has a limited number of participants for results validation and the suggestion for future research to gather more respondents and consider additional dimensions or customer-related factors. as trends and communication channels change over time.
Deksne, D., & Vasiljevs, A. (2018)	The paper presents a practical approach to creating a chatbot for customer support operations. The	The study focuses on developing a chatbot for Latvian-speaking users.

Paper Reference	Contribution of Paper	Future Research / Limitations
	study focuses on developing a chatbot to improve efficiency and raise customer satisfaction in customer service centers. By leveraging data accumulated from customer support operations, the paper demonstrates how innovation, in the form of chatbot technology, can be adopted to enhance customer support processes. The chatbot developed in the study is targeted at Latvian-speaking users, indicating an innovative approach to catering to specific language needs in customer support. Additionally, the paper proposes a simple evaluation metric for chatbot responses to natural language questions, which can be seen as an innovative method for assessing the readiness of chatbots for actual user deployment. Therefore, the paper's approach to utilizing innovation in the form of chatbot technology to enhance customer support aligns with promoting innovation adoption in the customer support environment. It provides insights into how new technologies can be leveraged to improve customer support processes and efficiency, ultimately promoting innovation adoption in the customer support environment. The research was qualitative.	Future research could explore the challenges and opportunities associated with implementing chatbot technology for diverse language groups in customer support environments, addressing the need for multilingual support in innovative solutions. Future research could focus on evaluating the long-term impact of chatbot adoption on customer satisfaction and overall user experience.

Paper Reference	Contribution of Paper	Future Research / Limitations
Elmorshidy, A., Mostafa, M. M., El-Moughrabi, I., & Al-Mezen, H. (2015).	The study explores the factors influencing the usage behavior of live customer support chat services, which can be considered an innovative approach to customer support. The authors found that perceived usefulness, perceived ease of use, compatibility, subjective norms, trust, and attitudes are all factors that impact the intention to use live customer support chat services. Businesses can promote innovation adoption in the customer support environment by focusing on these factors. For example, they can emphasize the usefulness and ease of use of their live customer support chat services, ensuring compatibility with their customer's needs and preferences and building trust and positive attitudes towards the service. The study's results inform about the development of training programs and resources to help customer support representatives effectively utilize live chat services to meet customers' needs and promote adoption. The research was quantitative.	The study was conducted in Kuwait, and the findings may not be applied to other countries or regions with different cultural and economic contexts. Also, the study focused on live customer support chat services and did not explore other innovative approaches to customer support, such as chatbots. Lastly, the paper utilized a quantitative approach and did not incorporate qualitative research methods.

The elements in Table 1 are relevant as they provide a structured overview of the critical aspects of the research question. At the same time, they are not focused on quality assurance tools but on innovations implemented into the customer service business.

The Contribution of Paper column shared how the paper, while not on the same topic, relates to the central research question. It directs into what is relevant to the research question of this study. It allows for a quick assessment of the article's alignment with the research objectives. The Future Research / Limitations column is essential to raise what else needs to be reviewed or how it can be used for different analyses based on what is proposed in the papers.

The reviewed literature presents several perspectives on promoting innovation adoption in customer support environments. Li and Tee (2021) contribute by developing an Automated Customer Support Services (ACSS) implementation framework within Collaborative Customer Relationship Management (CCRM) systems, emphasizing a comprehensive approach that considers customer perspectives and experiences. Smirnov, Pashkin, and Chilov (2005) propose a personalized Customer Service Management (CSM) system, highlighting the need for future research on user perceptions and challenges in adopting customized systems. Ansari and Almunawar's (2011) work explores CRM adoption in healthcare but is criticized for lacking empirical data and concrete examples. Li and Tee's (2021) quantitative study also focuses on ACSS implementation, calling for more participants in future research. Together, these studies underscore the importance of considering various innovative approaches and the need for comprehensive strategies to enhance innovation adoption in the customer support environment.

2.3. Theoretical framework

While performing a literature review on technology adoption for quality assurance tools, it was observed that there is a gap of research with focus on adopting these in the customer service industry. The reviewed literature highlights various innovative approaches for customer support environments, such as Li and Tee's (2021) ACSS framework within CCRM systems and Smirnov, Pashkin, and Chilov's (2005) personalized CSM system, emphasizing the need for user-centered adoption strategies. These findings underscore the necessity for a comprehensive plan to enhance innovation adoption in customer support. Still, they need to address quality assurance tools, making that area underexplored and requiring further research.

The gap identified in the literature it was fundamental to establish a strong theoretical foundation for the study. Therefore, the key articles below were identified for their significant contributions and influence on innovation adoption in similar settings as in this study. These papers were carefully selected as they align with the research topic on technology adoption and quality assurance in customer service. Additionally, they provided the basis that inspired the choice of the theoretical framework to develop this research, the Technology Acceptance Model (TAM).

Morais and Rodrigues (2023) focuses on the often-overlooked employee perspective in adopting technologies. While numerous studies explore the impact of AI on customer experiences and organizational efficiency, this paper takes an approach by focusing on the experiences of store assistants. By conducting a qualitative study, the research fills a critical gap in the existing literature. This methodological choice contributes to a deeper understanding of the nuances involved in employees' acceptance of technologies, shedding light on factors that quantitative approaches might miss. The emphasis on the employee perspective is particularly crucial given the observed role of store assistants as intermediaries between companies and customers. The paper not only showcases the importance of adapting companies' strategies to meet the needs of employees but also encourages training programs to equip them with the necessary skills to promote and utilize new digital platforms effectively. The paper's conclusion advocates for companies to invest in training programs for technological development and the creation of skills related to new digital platforms, providing actionable insights for businesses aiming to navigate the evolving landscape of AI in the sector. This paper is a foundation for future studies examining the dynamics between technology adoption, employee perspectives, and customer interactions.

Nicolás-Agustín et al. (2021) were chosen for their research on promoting innovation adoption in the manufacturing sector because it provides insights into how human resource practices can promote innovative behavior in organizations. While the paper focuses on digital transformation in a different sector (manufacturing), the findings can be applied to other contexts, including customer support. The paper highlights the importance of aligning employees with the vision and values of the company, implementing teleworking policies, and creating a good work environment to foster innovative behavior. These practices can be adapted to different environments. Additionally, the paper emphasizes the need for strategic alignment between the company's strategy and human resource practices, which is relevant to promoting innovation adoption in any organizational context.

2.3.1. What leads users to accept or reject a tool? Technology Acceptance Model (TAM)

Davis introduced the Technology Acceptance Model (TAM) in 1989. The model suggests that people are more likely to use technology if they perceive it as beneficial and straightforward (Davis, 1989). TAM has been utilized in studies on technology adoption in various contexts, including the workplace and organizational settings, education, health care, public sectors, and others (Venkatesh et al., 2003).

Recent studies have applied TAM to evaluate technology implementation in customer service. The model was used to explain customer acceptance of service robots in the hospitality industry based on perceived usefulness and ease of use (Park et al., 2023). Additionally, studies on AI chatbots during the COVID-19 pandemic used TAM to understand technology acceptance (Iancu & Iancu, 2023).

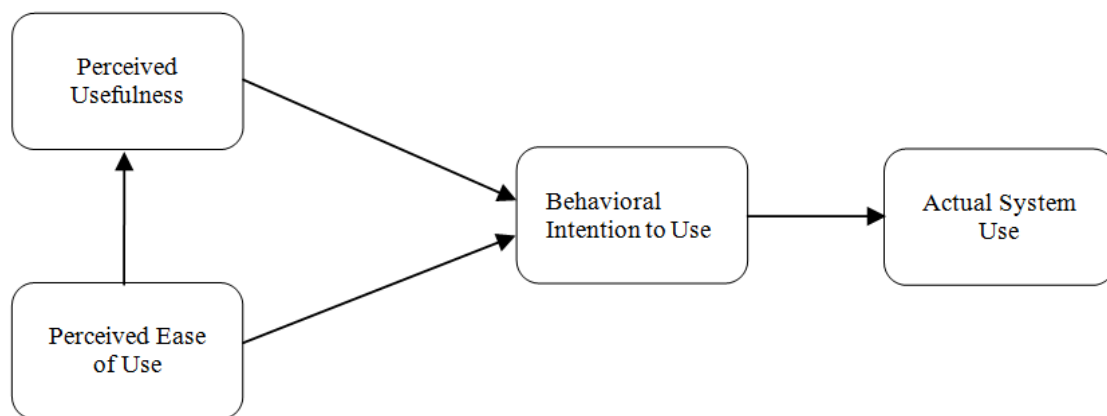


Figure 3. Technology Acceptance Model, based on Davis's (1989)

TAM hypothesis is that the user will adopt a technology according to their Perceived Ease of Use (PEOU), meaning the degree of effort that technology users need to employ to use new technologies, or their Perceived Usefulness (PU), which is the subjective understanding of users about how useful the newly adopted technology may be (Davis, 1989).

Davis's model finds numerous aspects that influence technology's PEOU and PU. Technology factors such as user interface design and accessibility impact PEOU because they determine how intuitive and user-friendly the technology is and how easily users interact. User attributes play an essential role; for example, computer self-efficacy influences how confident users feel about their ability to use the technology, while anxiety refers to the uncertainty or fear associated with using technology. Additionally, the

availability and quality of training programs, as well as ongoing technical assistance are crucial for reducing perceived complexity and making the system easier to use (Davis, 1989).

Factors influencing PU include how relevant and valuable the technology is for the user's job, job relevance, outcome expectations, output quality, and result demonstrability; job relevance evaluates the extent to which the technology applies to the user's tasks. Furthermore, outcome expectations relate to the anticipated improvement in job performance and productivity. Output quality refers to the quality and usefulness of the outputs generated by the system, and result demonstrability is about how visible and demonstrable the technology's benefits are to the user. System characteristics such as timeliness indicate how quickly the system can deliver results and significantly influence PU (Davis, 1989).

2.3.2 The challenge of organizational innovation implementation

Klein and Sorra (1996) propose strategies to successfully implement technology in an organization. They highlight the importance of innovation-values fit. This involves aligning the new technology with the organization's values, norms, and practices. Such alignment will likely be accepted and used by employees. Additionally, the benefits of the innovation should be communicated appropriately, and how it aligns with the organization's goals can contribute to gaining employee support and reducing resistance to change (Klein & Sorra, 1996).

Klein and Sorra (1996) propose a model of the determinants and consequences of organizational implementation effectiveness. The implementation climate addresses organizational policies and practices supporting innovation through adequate training, resources, and managerial support. Innovation-values relate to the degree to which the innovation aligns with the organization's values. When an innovation fits well with these values, it is more likely to be accepted.

In terms of consequences, employee commitment to innovation is essential. Employees perception of the innovation as valuable and consistent with their values and goals, leads to its integration into their daily work routines. Effective use of the innovation is measured by the extent to which employees use the innovation, which leads to higher utilization levels.

The model also includes a feedback loop. As employees become more committed to and use innovation effectively, the implementation climate strengthens and enhances the

perceived innovation-values fit, creating a positive cycle. In summary, Klein and Sorra's model suggests that successful implementation of innovation requires a supportive implementation climate and a good fit between innovation and organizational values. When these conditions are met, employees are more likely to commit to and use the innovation effectively, leading to improved organizational performance and innovation outcomes (Klein & Sorra, 1996).

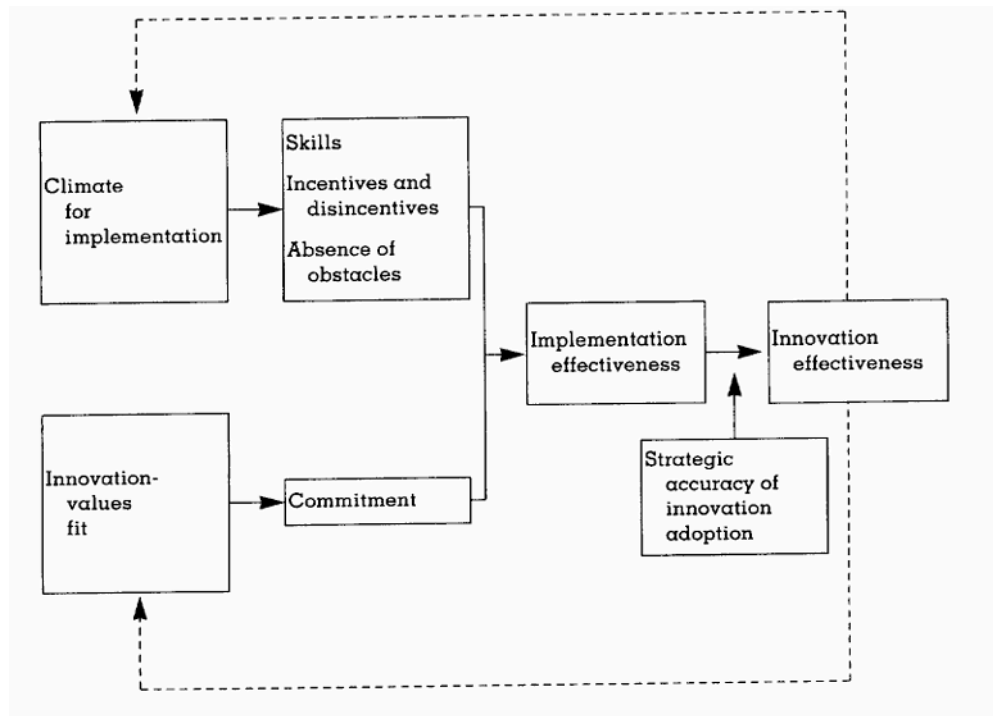


Figure 4. Determinants and Consequences of Implementation Effectiveness from Klein and Sorra (1996)

Different studies have applied the author's model to analyze technology implementation in various settings, including customer service. Helfrich et al. (2007) adapted the model to study the implementation of innovations in healthcare. The authors emphasized the importance of the innovation's fit, core competencies, and existing work processes to ensure the implementation. Powell et al. (2021) highlighted the implementation climate, including factors like organizational support and resources, which are crucial in successfully adopting new technologies in service organizations. Lennox et al. (2018) shared a systematic review of sustainability approaches in healthcare. They found that maintaining a positive implementation climate and ensuring alignment with organizational values is critical for the long-term success of technological innovations.

3. Method

3.1. Problem and Research Question

Quality assurance tools promise to streamline procedures and improve the customer experience. However, organizations need to improve the relationship between the potential of these technologies and their actual adoption (Foster et al., 2021). While there is literature regarding innovations implemented in customer service, literature is scarce concerning implementing quality assurance tools.

This study examines strategies used to enhance the adoption of quality assurance innovative tools in customer support environments, given that the existing literature predominantly addresses technology implementation without a specific emphasis on quality assurance. To do so, the objective is to respond to the following question: How can organizations promote the adoption of innovative quality assurance tools applied to customer service?

3.2. Method

To answer the research question of this study, the method used was case research as this is the preferred method when a “how” question is being answered and the focus is a temporary phenomenon in the context under study (Yin, 2009). Moreover, case research allows for the in-depth analysis required in this type of topics (Linton, 2002).

The case study was conducted to analyze the implementation of a new quality assurance tool, Tool B, in Company X, a Business Process Outsourcing company specializing in customer support, trust and safety, quality assurance, and software QA. Company X decided to migrate from Tool A to Tool B primarily to leverage enhanced capabilities and features built upon the existing foundation of Tool A. Tool B represents a significant advancement, offering small teams an upgraded user experience with a modern interface designed for intuitive navigation. Moreover, it introduced new functionalities, such as an automatic scoring queue and an improved insights page for comprehensive data analytics. These innovations streamline operations and align seamlessly with other customer service tools developed by Company X, ensuring a cohesive and integrated support ecosystem.

This implementation process was considered an appropriate setting for this study because of the timing of the implementation, closeness to the research topic, and to the fact that at the time of the implementation, the author was working as a contractor at Company X with privileged access to the information required to conduct the study.

3.2.1. Data Collection and Analysis

Fifteen semi-structured interviews were conducted. The interviews took place online with employees working in Company X and using Tool B. This allowed for the collection of necessary data for the study.

All interviewees signed a Consent Form to participate in the research process. The form was previously reviewed and approved by Company X's Human Resources department. Interviewees were assured of anonymity and that honesty and genuine opinions were expected from them for this investigation. All interviews were recorded and transcribed immediately after the interview. It was ensured that the data collected would only be used for this research.

The chosen interviewees were all Company X employees working with Tool B at the time from three distinct departments: Quality, Operations, and Product. The Quality department interviewees, including associates, leads, and managers, use Tool B mainly to provide feedback to the agents working in the Operations department. The Operations department, comprising agents, leads, and managers, are directly responsible for customer service interactions. The agents receive quality feedback from the Quality department, while the leads and managers use this feedback to monitor and improve performance, all through Tool B. The Product team is responsible for developing and supporting Tool B. They were selected to offer a technical perspective on the tool's implementation. Although not end-users, they play a vital role in incorporating feedback and ensuring the successful implementation of Tool B. The study aims to capture a holistic view of Tool B's implementation within Company X by including participants from these three departments.

On average, each interview took fourteen minutes. The interviews took, in total, three hours, thirty-one minutes, and twenty-five seconds. The longest interview lasted twenty-two minutes, and the shortest six minutes and fifty-six seconds. The research was found to be extensive enough to ensure theoretical saturation (Eisenhardt, 1998).

The questions were made using an interview guide based on the existing literature and technology adoption models selected, as well as on the author's previous knowledge about the company. The guide consisted of nine main topics to be discussed during the interviews, and the questions were adapted depending on the context and the interviewee.

In addition to interviews, this study used observation as another method of data collection. During the research, the author was also a user of Tool B, being able to directly observe its

application and usage within Company X. This observational approach provided insights into how employees from different departments interact with Tool B in real-time.

For the analysis of data, all answers to each topic were clustered together so that all answers to one topic could be reviewed and all insights collected. This systematic approach was essential to identify patterns and draw well-supported conclusions from qualitative data (Miles et al., 1988). The data obtained and systematized was related to the literature reviewed earlier in the study. This process involved comparing the interview and observation findings with existing theories and frameworks to identify consistencies and discrepancies, resulting in a comprehensive discussion of the study's implications and contributions.

4. Results Analysis

4.1. Results presentation

In this section, we present the results about employees' perceptions regarding adopting the new quality assurance tool, referred to as Tool B, within Company X, a Business Process Outsourcing (BPO) primarily focused on customer service. All interviewees have experience working with quality assurance tools and currently use Tool B recurrently. The analysis concerns several key topics, addressed in the interviews: (1) How do employees use Tool B, and for what purposes? (2) Their experiences with the transition from the former tool, Tool A, to Tool B; (3) Their perceptions of how the change was communicated; (4) Their satisfaction with the support received for Tool B; (5) Their opinions on training and support materials provided for Tool B; (6) Major difficulties encountered in using Tool B; (7) Feedback on what aspects were better in Tool A compared to Tool B and vice versa; (8) Suggestions for improvement in transitioning from Tool A to Tool B; and (9) Insights into their approach for creating a guide to implement Tool B in the future.

4.2. How do employees use Tool B, and for what purposes?

The first analysis topic delves into how employees use the quality assurance tool and for what specific purposes. Through the interviews, various patterns and practices emerged regarding the frequency and manner of usage.

Some employees reported using the tool daily to provide feedback, coach, or grade calls. This daily engagement allows for performance monitoring and ensures timely interventions when necessary. Others mentioned using the tool weekly to check reviews, acknowledge feedback, or access analytics. This periodic engagement maintains oversight of performance trends. Only some respondents admitted using the tool less frequently, sporadically, or not in their daily routines. Their interaction with the platform typically revolves around specific tasks such as data export, report checking, or feature assessment.

Additionally, there were instances of specialized usage where employees employed the tool for distinct purposes, such as data management or product enhancement. This specialized usage reflects a tailored approach to leveraging the platform's functionalities to meet specific organizational needs.

The analysis reveals diverse usage patterns of Tool B among employees, reflecting their distinct organizational roles and responsibilities. For instance, within the Quality department, the frequency of tool usage varies significantly based on position. Quality

Associates typically engage with the platform daily, given direct involvement in monitoring and providing feedback. While using the tool frequently, quality leads might not need to access it as often as associates, and higher management usually engages with the tool weekly, focusing on oversight and strategic analysis rather than daily operations.

In the Operations department, the usage pattern varies. Associates, who primarily receive feedback through the platform, tend to access it less frequently, often only once a week, to review their performance evaluations. In contrast, leads and managers use the tool daily to track performance metrics and manage their teams.

For the Product team, the frequency of tool usage depends on their involvement in the development and support of the platform. Team members actively participating in the development process engage with the tool daily to monitor its functionality and implement updates. Others who are not mainly working with Tool B use the platform less frequently, primarily when addressing specific issues or implementing enhancements.

4.3. Experiences with the transition from the former tool, Tool A, to Tool B

In this section, we delve into employees' experiences transitioning from the former tool, Tool A, to the new quality assurance tool, Tool B. The insights gathered provide valuable perspectives on the challenges encountered, the effectiveness of communication and support mechanisms during the transition period, and adaptation processes.

Employees revealed various challenges and pain points experienced during the transition process. These included an unexpected name change of Tool B that was only announced on the day the change occurred, activation problems, and platform glitches. Some employees expressed frustration with the name change of Tool B, which led to confusion. Additionally, activation issues, such as difficulties logging in or encountering error messages, posed obstacles to accessing Tool B's functionalities. Platform glitches, such as issues accepting invites, filters not working correctly, problems acknowledging feedback, and issues with the extension, further exacerbated the transition experience, causing disruptions. Despite these challenges, employees acknowledged a relatively smooth migration overall.

Effective communication and support emerged as critical factors in shaping employees' transition experiences. Employees shared that they expected more consistent communication regarding the change's purpose and the anticipated benefits of Tool B, as it would have helped alleviate uncertainties and fostered a sense of readiness among

employees. Moreover, timely support to address technical issues and user concerns was pivotal in mitigating challenges encountered during the transition.

Employees demonstrated varying degrees of familiarity and adaptation to Tool B. While some found the transition seamless, citing similarities between Tool A and Tool B, others faced difficulties adjusting to the new platform. Personal preferences and resistance to change were cited as factors influencing employees' adaptation processes. However, as employees gradually acclimated to Tool B, many reported positive experiences, appreciating its modern interface, enhanced functionality, and intuitive design. Over time, most employees embraced Tool B as an improvement over its predecessor.

Several factors influence these varying experiences and opinions. For instance, previous users of Tool A generally adapted more quickly to Tool B due to the similarities between the two platforms. This was particularly noted among employees from the Quality and Operations departments, who were already familiar with the functionalities. There was a noticeable difference within the Quality department based on the role. Many Quality employees were involved in the migration process, were more aware of the changes, and were better prepared for the transition.

On the other hand, some managers from the Quality and Operations departments felt that they benefited from better communication regarding the changes. These managers were also responsible for communicating the change to Company X's partners, adding another layer of complexity to their adaptation process. The Product team generally had a good understanding of the issues that arose during the transition. They acknowledged aspects of the implementation that could have been handled differently to ease the process for all employees.

In summary, employees' experiences transitioning to Tool B underscore the importance of proactive communication, comprehensive support, and user-centric design in facilitating successful technology transitions within organizations. By addressing challenges head-on and prioritizing user needs, organizations can navigate transitions more effectively and maximize the benefits of innovative tools such as Tool B in the customer service environment.

4.4. Perceptions of how the change was communicated

This section delves into employees' perceptions of how the transition from the former tool, Tool A, to the new tool, Tool B, was communicated within the organization, Company X.

They shared insights on the communication strategies and the overall transparency of the change process.

Overall, employee's perceptions varied between positive and negative. Some expressed satisfaction with the clarity and timeliness of communication regarding the transition. They believed that Company X informed employees about the changes and shared regular updates, reminders, and documentation so they felt informed and prepared for the transition. Additionally, employees noted that communication channels, such as emails and Slack channels, were utilized to disseminate information and address any queries or concerns raised by employees.

Conversely, some employees highlighted instances where communication fell short or encountered challenges. Issues such as confusion over timelines, feature changes, and unexpected maintenance disruptions were cited as areas where communication could have been improved. Lack of clarity regarding the purpose of the change and the differentiation between Tool A and Tool B led to uncertainty and frustration among some employees. Additionally, technical glitches and hiccups in the transition process contributed to the dissatisfaction with communication efforts.

It is possible to identify that the optimistic group consisted primarily of two distinct user profiles. The first group included employees who waited for the Tool B product team to transfer all their data. These users found the transition seamless as they only needed to track announcements and start using Tool B once their data migration was complete. The second group with positive perceptions had a proactive Quality manager who instructed them to begin using Tool B in January, well before the official migration date. This manager supported the transition by creating detailed documentation, delegating tasks such as sending invites and testing the new tool, and providing a hard timeline and the correct contact points during the transition.

In contrast, negative feedback primarily came from Quality managers, the Product team, and some Operations managers. These individuals faced challenges as they were responsible for cascading information and ensuring that Operations, Quality, and external partners were prepared for the change. The negative experiences were often tied to the expectation of managing the transition and ensuring that all parties were well-informed and ready to switch to Tool B.

Employees offered suggestions for enhancing communication in future transitions. They emphasized the importance of providing clear, consistent messaging outlining the reason

behind the change and the anticipated employee benefits. Additionally, they advocated for more interactive communication methods like roadshows to engage stakeholders and address misconceptions or concerns directly. Ensuring alignment between communication efforts and user expectations, particularly regarding data migration and platform functionality, was identified as an area for improvement.

4.5. Satisfaction with the support received for Tool B

Transitioning to a new tool can often come with challenges, but the level of support can significantly impact the user experience. Employees's satisfaction with the support they received for Tool B during and after the transition period was explored.

During the transition, employees appreciated the support team's responsiveness, noting that when reaching out, their concerns were typically addressed within 24 to 48 hours. Direct communication channels, such as Slack or email, allowed employees to report issues promptly and receive timely assistance. Support representatives were willing to engage with users, offering to schedule Zoom calls to troubleshoot the problems in real-time. Some employees noted that support personnel provided individualized troubleshooting documentation to address specific concerns, facilitating a smoother resolution process.

However, while overall satisfaction was high, some employees needed to receive prompt responses to their support queries. Instances of reported issues taking longer than expected were shared, mainly when issues required investigation or backend changes. Some employees highlighted the need for additional technical support to expedite problems' resolution and reduce handoffs, which can prolong the resolution process.

Navigating support channels proved challenging for some employees, leading to delays in issue resolution. Clear guidance on navigating support channels, including direct access to engineering teams, was suggested to streamline the support process. While most employees reported positive interactions with the support team, there were instances where responses were delayed or queries went unanswered. Varied experiences were observed, with some employees encountering challenges accessing timely support, while others found the support provided satisfactorily.

Employees from all departments generally shared a positive view of the support team. However, those who reported negative experiences often did so because they were not using the proper support channels. Instead of contacting the Tool B support team directly, some employees contacted a point of contact in the Quality department, which was not the

intended support pathway. In other instances, employees tried to resolve issues by contacting a Tool B product manager or sharing their problems in Slack rather than opening a ticket through the designated support channels. These improper methods of seeking support led to delays and frustrations.

In summary, employees generally expressed satisfaction with the support received for Tool B, highlighting the responsiveness and effectiveness of the support team in addressing their queries and issues. However, concerns were raised regarding delays in response times, resource allocation, and clarity around navigating support channels. Addressing these areas of improvement could further enhance the support experience and contribute to a smoother transition process for all users.

4.6. Opinions on training and support materials provided for Tool B

Employees' views on Tool B's training and support materials varied, with some expressing that the information available is enough and the majority highlighting areas for improvement.

Several employees emphasized the importance of clear and easily accessible training materials. They suggested creating essential guides or tutorials that are user-friendly and intuitive, catering to both new and experienced users. Additionally, there was a consensus on the need for flexible training resources, such as video courses or hands-on sessions, to accommodate different learning styles and preferences.

Not all employees found the existing training materials sufficient. Some reported a need for more awareness regarding available materials, while others noted that the provided resources needed to be updated or completed. Suggestions were made to centralize training materials on platforms such as Confluence for easy access and to ensure they are regularly updated.

Despite these concerns, employees acknowledged the usefulness of specific support resources, such as the Frequently Asked Questions document. Live demos and Zoom calls with support personnel were praised for providing personalized assistance and troubleshooting guidance.

The interviewees from all departments shared the overall feedback on the need for more resources. The few who were satisfied with the available tools were already users of Tool A, so when migrating to Tool B, they just relied on the platform similarities and user-friendly interface. Overall, there was a consensus on the need for more precise documentation,

updated resources, and diverse training formats to accommodate varying user needs and preferences, mainly from people managers and the Product team. Addressing these concerns could contribute to a more effective and efficient user transition process.

4.7. Major difficulties encountered in using Tool B

Using Tool B has presented several challenges for employees, affecting their workflow and productivity in various ways. During the interviews, the users shared their difficulties using the new tool.

One of the most significant challenges users faced was the need for comprehensive training materials for Tool B. Many employees from Quality and Operations expressed frustration at the lack of clear guidance on navigating the platform effectively and adequate training resources, and they could not fully utilize the tool's features and functionalities.

Users from all departments encountered login issues while attempting to access Tool B, which impeded their ability to utilize the platform effectively. Multiple users reported these issues, indicating a widespread problem that affected various teams and individuals. The login issues caused workflow and productivity disruptions, as users could not access the necessary tools and features within the platform. Despite attempts to troubleshoot the problem internally, the login issues remained unresolved for an extended period, leading to frustration and dissatisfaction.

Some users found Tool B's user interface complex, leading to inefficiencies in completing tasks. Additionally, some reported encountering bugs and glitches within the interface, further exacerbating usability issues.

Users from the Quality department had difficulties customizing Tool B to suit their specific needs. The platform's limited customization options hindered users from effectively tailoring their quality rubrics. This lack of flexibility resulted in frustration among these users. Quality and Operations teams' managers also shared issues with Tool B's Analytics dashboard. They shared that they would need different options to filter and adjust the displayed data to manage teams and individual performance properly.

Another major challenge users faced was the lack of timely support and assistance when encountering issues with Tool B. Responses from support channels were often delayed, leaving users stranded without resolution to their problems. This lack of support further compounded the frustration experienced by users grappling with the platform's complexities. Communication gaps between users and the tool's development team

exacerbated the difficulties encountered using Tool B. Users reported feeling uninformed about updates, changes, and troubleshooting procedures, leading to disconnect and frustration.

For the Product team, transitioning from the previous tool to Tool B posed significant challenges. Issues related to data migration, compatibility with existing workflows, and adjustments to new features caused disruptions in their daily tasks. Integrating Tool B with existing systems and processes proved another hurdle for the group. Compatibility issues and insufficient support for integration tasks could have helped seamlessly incorporate Tool B into their workflows.

In conclusion, Tool B users faced many challenges ranging from inadequate training and usability issues to communication gaps and integration challenges. Addressing these difficulties will enhance user experience and maximize the tool's potential for facilitating efficient workflows and productivity.

4.8. Feedback on what aspects were better in Tool A compared to Tool B and vice versa

Employees generally expressed that Tool B offered significant improvements over Tool A in several areas. The enhanced dashboards were mentioned as a significant benefit. Users appreciated the clarity, visual appeal, and user-friendly layout of the dashboards in Tool B. These improvements made it easier for teams to access and interpret data effectively. Additionally, the ability to associate multiple programs and create specific domains was noted as a valuable feature that improved visibility and management across different accounts.

Some employees identified some issues with the new tool. The login process was seen as longer and more cumbersome compared to Tool A. This added complexity was a necessary trade-off to support multi-tenancy and broader user access, but it was still frustrating from the Product team's perspective. Additionally, the search functionality in Quality was perceived as less effective, with some managers finding it more challenging to locate specific information. There were also mentions of stability issues and occasional technical glitches during the transition, contributing to disorientation among users.

Despite these challenges, the overall sentiment toward Quality was positive. Employees from all departments recognized the potential for further development and improvement, expressing optimism about the future capabilities of the new tool. They valued the

proactive approach taken by the organization in addressing feedback and implementing enhancements.

4.9. Suggestions for improvement in transitioning from Tool A to Tool B

The transition from Tool A to Tool B prompted various suggestions for improvement from users, highlighting successes and areas for enhancement. One prevailing sentiment was the need for greater involvement and feedback from operations teams during the transition process. Users expressed a desire for more than just a simple copy-paste approach, advocating for opportunities to develop and customize features, particularly those related to grading and operational workflows. The operations team emphasized soliciting their input to identify critical features for early implementation and ensure a smoother transition.

Feedback was also shared for clarity and consistency in the product development strategy. Some users felt a need for direction and frequent changes in branding strategy, leading to confusion and uncertainty.

While some users reported a smooth transition with minimal disruption, mainly those who waited for their data to be migrated, others highlighted specific areas for improvement. Suggestions included more hands-on involvement in the transition process, such as testing Tool B priorly, implementing grades, or conducting calibrations before migration. Additionally, users suggested providing more guidance and resources, such as tutorial videos, to familiarize users with the new platform and its features.

Communication emerged as a key theme from all departments, with users calling for more proactive and transparent communication throughout the transition process. They emphasized the need for formal sessions and meetings to discuss changes, timelines, and challenges and more official backing from higher leadership to ensure smoother transitions and better support from all levels of the organization.

Several users highlighted specific challenges they encountered during the transition, such as issues with logins, role assignments, and user acceptance of invitations. They suggested conducting thorough testing and scenario planning to identify and address potential issues before they escalate and providing more straightforward guidance and troubleshooting resources for users experiencing difficulties.

In addition to internal improvements, managers stressed the importance of clear communication with Company X clients regarding the transition process. They emphasized

the need for transparent updates and progress reports to keep clients informed and address any concerns or questions. Clear communication of changes would enable users to support Company X clients better and ensure a smooth transition experience for all stakeholders.

Overall, users emphasized the importance of a collaborative and well-structured approach to transitioning between tools, with clear communication, user involvement, and proactive support from all stakeholders, including higher management, being critical factors in ensuring a successful transition experience.

4.10. Insights into the approach used for creating a guide to implement Tool B in the future

To create a comprehensive guide for implementing Tool B in the future, users shared valuable insights and approaches. One common suggestion from Operations was establishing a testing group to identify potential issues and gather feedback before rolling out the tool company-wide. The group emphasized the importance of proactively conducting testing and validation to address bugs or usability problems to avoid potential disruptions. Users also recommended adopting a phased approach to implementation, starting with a control group to ensure a smooth transition and allowing sufficient time for testing and refinement before deployment.

A primary recommendation shared by Quality and Product was centralizing all implementation resources in one location, such as a single source of truth document or a user manual. The teams highlighted the importance of providing clear, step-by-step instructions and visual aids to make the implementation process easier and user-friendly. They suggested incorporating interactive training elements like walkthroughs or videos to improve understanding and engagement. They stressed the need for ongoing communication and training throughout the implementation process, and suggested scheduling regular meetings to discuss timelines, address difficulties, and gather user feedback. This stresses their shared concern that all users are adequately trained to use the new tool effectively.

Overall, users emphasized the importance of a structured and well-documented approach to implementing Tool B, focusing on testing, clear communication, and training to facilitate a successful transition for all users. They highlighted the need for proactive support and management guidance to ensure effective implementation.

In summary, and based on the insights collected and presented throughout this chapter, the following table aims to summarize the key points previously discussed:

Table 2: Summary of key topics and results.

Key Topics	Results
How do employees use Tool B, and for what purposes?	Daily users provide feedback, coaching, grade calls, and performance monitoring. Weekly users check reviews, acknowledge feedback, access analytics, and performance oversight. Less frequent users sporadic use for data export, report checking, feature assessment, and specific tasks. All departments, Quality, Operations, and Product, have different types of users, mainly depending on their role.
Experiences with the transition from the former tool, Tool A, to Tool B	Challenges found: Name change confusion, activation problems, platform glitches (login issues, error messages, invite acceptance issues, filters malfunctioning, feedback acknowledgment issues, extension problems). General feedback on the need for consistent communication regarding purpose and benefits and timely technical support is crucial. The adaptation process was seamless for some due to similarities with Tool A and difficulties for others due to personal preferences and resistance to change. Quality and Operations adapted quickly due to familiarity with Tool A, managers needed better communication for cascading information to partners, and the product team recognized areas for improvement in the implementation process.
Perceptions of how the change was communicated	Clear and timely communication, regular updates, and the use of emails and Slack channels drive positive perceptions. Negative perceptions are caused by confusion over timelines, feature changes, unexpected maintenance, and lack of clarity about purpose. Optimistic users waited for data migration or had proactive quality managers—negative ones mainly consisted of managers responsible for cascading information and the product team.
Satisfaction with the support received for Tool B	Positive feedback for the responsive support team, prompt issue resolution, direct communication channels, and personalized troubleshooting. Negative Feedback for delays in response times, additional technical support, and challenges navigating support channels.
Opinions on training and support materials provided for Tool B	Positive feedback for helpful support resources like FAQs, live demos, and Zoom calls for personalized assistance. Areas of improvement: There is a need for clear, accessible, and updated training materials, more awareness about available resources, and centralization of materials. Suggestions: Essential guides, user-friendly tutorials, flexible training formats (videos, hands-on sessions), and a centralized platform for training materials.
Major difficulties encountered in	Lack of comprehensive training materials, clear guidance, and adequate resources.

Key Topics	Results
using Tool B	Technical issues include login issues, complex user interfaces, bugs, and glitches. Difficulties in customizing quality rubrics and limited options in the analytics dashboard. Delays in support response and communication gaps with the development team. Data migration issues, compatibility with existing workflows, and integration with other systems.
Feedback on what aspects were better in Tool A compared to Tool B and vice versa	Improvements in Tool B: Enhanced dashboards, clarity, visual appeal, user-friendly layout, better visibility, and management features. Issues in Tool B: Longer login process, less effective search functionality, stability issues, technical glitches. Overall sentiment for Tool B is positive, recognizing the potential for further development and proactive feedback handling.
Suggestions for improvement in transitioning from Tool A to Tool B	Greater involvement of operations teams, opportunities for feature development and customization, thorough testing and scenario planning, Clear and consistent product development strategy, proactive communication, formal sessions and meetings, and higher leadership backing. More guidance and resources (tutorial videos). Transparent updates and progress reports, clear communication of changes.
Insights into the approach used for creating a guide to implement Tool B in the future	Establish a testing group for early feedback and issue identification. Phased approach: Start with a control group and allow time for testing and refinement before full deployment. Single source of truth document, clear step-by-step instructions, visual aids, interactive training elements. Ongoing communication and training, regular meetings to discuss timelines and gather feedback, ensure all users are adequately trained.

5. Discussion

The objective of this study was to address the question: How can organizations promote the adoption of innovative quality assurance tools applied to customer service? The chosen method was a case study in which the implementation of a new quality assurance tool was observed, the employees' perceptions during this transition were shared, and the identification areas of improvement and understanding of the overall change process.

To achieve this, semi-structured interviews were conducted with employees across different departments and roles at Company X. During the interviews, several key areas were explored, including how the tool is used, their experience during the transition, feedback in regards to communication, support, and training, the comparative advantages and disadvantages of both tools and the challenges faced by employees throughout the process and usage. This discussion sheds light on the critical factors influencing the success of Tool B adoption and recommendations for improving future implementations.

Using TAM (Davis, 1989) as a model to guide this research proved effective while exploring the user's acceptance of Tool B. According to Davis (1989), perceived usefulness is the degree to which a person believes using a system would improve their job performance. Perceived ease of use addresses the degree to which a person believes using the system would make their job easier. During the interviews, participants frequently shared about the usability and functionality of Tool B, showing their perceived ease of use and perceived usefulness in both positive and negative ways.

The model of the determinants and consequences of organizational implementation effectiveness shared by Klein and Sorra (1996) was also a practical theoretical framework for this research. The model suggests that a successful implementation requires a supportive climate and a good fit between innovation and organizational values. In this research, the model helped analyze how the communication strategies, training, and support influenced employees' acceptance and use of Tool B. For instance, the interviews explored whether employees felt informed correctly and supported during the transition, showcasing the importance of a positive climate and supportive policies for climate implementation.

Klein and Sorra (1996) also suggested that the consistency of innovation use can measure implementation effectiveness. During the interviews, participants shared their experiences regarding the usability of Tool B, the challenges they faced, and how these impacted their job performance.

Opportunities were flagged regarding the user's experience with the transition from Tool A to Tool B. These mainly impacted their perceived ease of use (Davis, 1989), meaning that initially, using Tool B was not as easy as using Tool A, generating difficulties that led to resistance at first. However, gradually, they acclimated to Tool B, improving their perceived ease of use. Another opportunity was regarding what Klein and Sorra (1996) describe under innovation-values fit, in which changes and goals should be communicated as the Quality and Operations department shared the mutual feedback that they would have benefited from better communication regarding the changes.

Diving into the communication feedback, it is possible to perceive that the group that was better supported shared overall good feedback. The other group, which mainly consisted of managers and the Product team, faced challenges that can be explained again by Klein and Sorra's (1996) model, as this specific group felt like they needed more support and clarification, showing that communication was an obstacle for them. The same is supported by Nicolás-Agustín et al. (2021) as the authors shared about the importance of aligning employees with the vision and values.

Overall, the feedback about the support received for Tool B was positive, aligning with the perceived ease of use shared by Davis (1989), in which ongoing technical assistance is shared as one of the main factors to facilitate the user's perception that using the new tool is easy. The overall opportunity here was that while support was available, it was also essential to be clear on the appropriate channels for it and avoid delays in responses and fixes.

While diving into the perceived ease of use in the Technology Acceptance Model (Davis, 1989), the importance of the availability and quality of training programs when implementing an innovation is highlighted. Morais and Rodrigues (2023) also advise that companies should invest in training programs, the same for Klein and Sorra (1996), who advise that innovation can be supported through adequate training. These authors share the same perspective regarding effective training when implementing innovation, and the lack of training and documentation of Tool B was pointed out by most employees.

The difficulties faced when using Tool B were very diverse, including the lack of training materials, bugs, and login issues. These affected perceived ease of use and usefulness (Davis, 1989). While the first was highlighted already for the lack of training materials, the second is mainly related to d when users face bugs and login issues. Having ongoing problems when when starting to use a tool will negatively impact the user's perception that

the new platform can deliver results, leading to a negative perceived usefulness. Nicolás-Agustín et al. (2021) highlighted the importance of aligning the company's strategy and human resource practice. In this case, it would improve the experience, ensuring that the employees participated more in giving feedback before the implementation.

Tool B's perceived usefulness (Davis, 1989) was particularly noticeable compared to Tool A. When comparing tools, the newest one seemed better and made the user's job easier, as Tool B is more user-friendly and has enhanced dashboards. While some feedback was shared mainly regarding the login process, overall, employees perceived Tool B as better and promising, as updates and new versions were expected.

Going back to the alignment between the company's strategy and human resources recommended by Nicolás-Agustín et al. (2021), there is a missing opportunity from Company X to work more closely with Operations and Quality when developing, testing and implementing Tool B. Overall, interviewees highlighted a need for more involvement, testing, and user feedback, which if performed before the transition, would facilitate the alignment between the company's goals and the employee's involvements with the transition. The same is reinforced by Klein and Sorra (1996) as the benefits of the innovation should be communicated appropriately, and how it aligns with the organization's goals.

Following the overall feedback shared, employees from Company X emphasized that if they were to create a guide for future implementations it would be crucial to have a well-structured and documented approach to the implementation process. That process would need clear communication, training, and documentation of the tool and the change process. In general lines the user's feedback is a combination of what both Klein and Sorra (1996) and Davis (1989) proposed. For an innovation to be successfully implemented, there is a need for individual acceptance factors and organizational conditions. Combined, they showcase a thorough understanding of how perceived ease of use and perceived usefulness, along with supportive implementation climate and policies, contribute to effective technology adoption and improved organizational outcomes.

Given the results and how the chosen models from Klein and Sorra (1996) and Davis (1989) were proven valid for conducting this case study, Figure 5 proposes a guide for the successful adoption of innovative quality assurance tools was proposed.

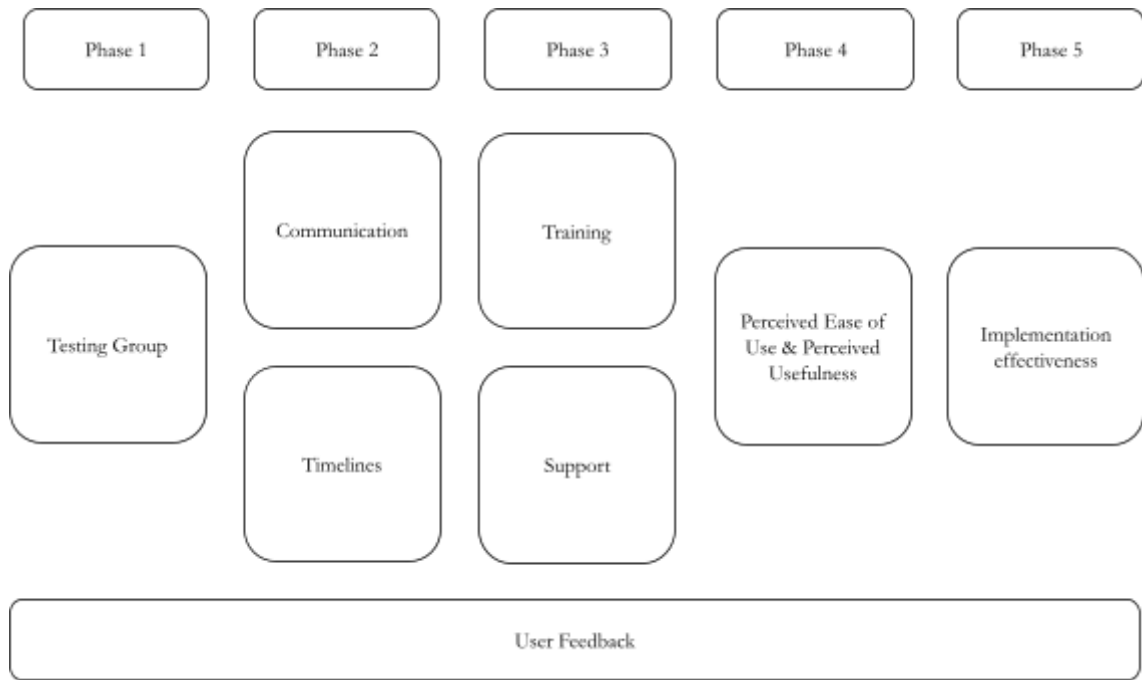


Figure 5. Proposed guide for a successful adoption of innovative quality assurance tools

In the proposed model, it is fundamental that before an implementation takes place, a testing group is selected during Phase 1. In this way, different teams can collaborate and share feedback regarding the tool, how it functions, and what else is needed to facilitate their day-to-day job. After a first interaction, it is essential to proceed to Phase 2 that consists of extensive scale of communication from higher management, in which the change is announced and explained in detail why it is happening and the goals of this change. With an announcement of the change, it is also essential to share timelines on what and how the change will occur so employees at every level understand what to expect and their roles during that period.

As everyone within the organization is aware of the upcoming changes, Phase 3 starts by initiating detailed training on the new tool, how it works, and where to reach out for support. Once everyone in a company knows what is happening and gets proper training and support, they will be prepared for Phase 4 that consists of using the new tool, perceive that it is easy to use, and make their day-to-day job easier. Once users understand the tool, approve it, and start using it, Phase 5 starts, meaning that the implementation effectiveness was reached by the organization.

While every action is taken and the company moves to the next step, it is essential to collect user feedback. It is imperative to make sure that every step is successful and that, in the end, the quality assurance tool is expected to be used correctly.

5. Conclusions

5.1. Research Conclusions

This study set out to investigate how organizations can promote the adoption of innovative quality assurance tools within customer service environments. The research was driven by the recognition that while quality assurance (QA) tools have the potential to enhance customer service operations significantly, their adoption can face some challenges. This includes complex user interfaces, inadequate training materials, and insufficient support. The study aimed to bridge the gap between the potential benefits of QA tools and their actual utilization.

Through a case study of semi-structured interviews and observational data collection, the research explored various aspects of QA tool adoption within Company X, a Business Process Outsourcing company specializing in customer support. Interviews with employees from different departments provided a comprehensive view of the implementation and use of Tool B, the new QA tool.

The study found that the successful adoption of QA tools lies on several critical factors: User Training and Support, consistent with the Technology Acceptance Model (TAM) proposed by Davis (1989), as perceived ease of use and usefulness, emerged as significant when searching user acceptance. Employees highlighted the need for comprehensive training programs and readily available support to transition from the old tool, Tool A, to the new one, Tool B.

Effective communication strategies were also expected when managing the transition. Employees' perceptions of how the change was communicated were crucial for their acceptance and adaptation to the new tool. This aligns with the model of the determinants and consequences of organizational implementation effectiveness proposed by Klein and Sorra (1996), emphasizing the importance of communication and managerial support to deliver a successful implementation.

The ability to provide and receive feedback on the tool's performance and usability was also imperative for users. Employees from the Quality, Operations, and Product departments underscored the importance of incorporating user feedback into the tool's ongoing development, ensuring that it meets their practical needs and improves over time. Finally, employees were more likely to embrace the new tool when perceiving its benefits

over the previous system. This is consistent with TAM, Davis (1989), which posits that perceived usefulness significantly influences technology acceptance.

The research successfully integrated the theoretical models of Davis (1989) and Klein and Sorra (1996) to provide a robust framework for elaborating a guide for adopting QA tools in customer service operations. TAM's emphasis on perceived usefulness and ease of use provided a solid foundation for assessing user acceptance. At the same time, Klein and Sorra's model highlighted the organizational factors that support or hinder successful implementation.

5.2. Implications for Practice

The findings of this study have several practical implications for organizations seeking to implement innovative QA tools. These organizations should invest in training by developing comprehensive programs that address their employees' specific needs, ensuring they feel confident and supported in using the new tools. Enhance communication by using clear and consistent communication strategies if the transitions are effective. Organizations should actively engage with employees, addressing their concerns and highlighting the benefits of the new tools.

Also, organizations must implement a robust feedback mechanism so user feedback can be taken and used to continuously improve their QA tools, making them more user-friendly and effective. Finally, companies can improve user acceptance and drive successful adoption by demonstrating the benefits of using a new tool.

5.3. Limitations and Future Research

One of the main limitations of this study is that the proposed framework for adopting QA tools resulting from the study was not empirically tested within any organization. This means that while the research identified critical factors and theoretical models likely to influence the implementation, the framework itself has yet to be validated through practical application.

Future research should focus on testing this framework in different organizational environments to assess its effectiveness and generalizability. Such studies could provide valuable insights into the nuances of QA tool adoption across various contexts, helping to refine and improve the proposed framework.

Additionally, future research could explore the application of this framework to other innovative customer service tools beyond just quality assurance-related tools. This broader

application could help determine whether the identified factors and theoretical models are universally applicable to adopting different types of technology within customer service settings, enhancing the overall understanding of technology adoption in this field.

References

- Anshari, M., & Almunawar, M. N. (2011). Evaluating CRM implementation in healthcare organization. *International Journal of Information Management*, 31(1), 77-85. <https://doi.org/10.1016/j.ijinfomgt.2010.05.005>
- Anthony, B. (2020). Examining the role of green IT/IS innovation in collaborative enterprise-implications in an emerging economy. *Technology in Society*, 62, 101301. <https://doi.org/10.1016/j.techsoc.2020.101301>
- Cartwright, G. (2024, April 18). The Future of Support: 5 Customer Service Trends of 2024. *Klaus*. <https://www.klausapp.com/blog/new-customer-service-trends/> Lastly accessed in July 11, 2024
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Management Information Systems Research Center*, 13, 319-340.
- Deksne, D., & Vasiljevs, A. (2018). Collection of resources and evaluation of customer support chatbot. *Baltic HLT*, 30–37. <https://doi.org/10.3233/978-1-61499-912-6-30>
- Eisenhardt, K. M. (1998). Building Theories from Case Study Research. *The Academy of Management Review*, 14, 532-550.
- Elmorshidy, A., Mostafa, M. M., El-Moughrabi, I., & Al-Mezen, H. (2015). Factors influencing live customer support chat services: An empirical investigation in Kuwait. *Journal of Theoretical and Applied Electronic Commerce Research*, 10(3), 63-76. <https://doi.org/10.4067/S0718-18762015000300006>
- Enders, T., Martin, D., Schüritz, R., & Wixom, B. (2020). Igniting the Spark: Overcoming Organizational Change Resistance to Advance Innovation Adoption – The Case of Data-Driven Services. In *Proceedings of the 40th International Conference on Information Systems* (forthcoming). https://doi.org/10.1007/978-3-030-38724-2_16
- Foster, T., Makarova, E., & Telpis, V. (2021, January 29). Making quality assurance smart. *McKinsey & Company*. <https://www.mckinsey.com/industries/life-sciences/our-insights/making-quality-assurance-smart> Lastly accessed in July 11, 2024

- Helfrich, C. D., Weiner, B. J., McKinney, M. M., & Minasian, L. (2007). Determinants of implementation effectiveness: Adapting a framework for complex innovations. *Medical Care Research and Review*, 64(3), 279–303.
- Hevner, A. R., March, S. T., Park, J., & Ram, S. (2004). Design science in Information Systems Research. *Management Information Systems Quarterly*, 28(1), 75. <https://doi.org/10.2307/25148625>
- Iancu, I., & Iancu, B. (2023). Interacting with chatbots later in life: A technology acceptance perspective in COVID-19 pandemic situation. *Frontiers in Psychology*, 13, 1111003. <https://doi.org/10.3389/fpsyg.2022.1111003>
- Jain, V., Ambika, A., & Sheth, J. N. (2022). Customer-Centric service ecosystem for emerging markets. In *Springer eBooks* (pp. 393–410). https://doi.org/10.1007/978-3-030-91828-6_21
- Klein, K. J., & Sorra, J. S. (1996). The challenge of innovation implementation. *The Academy of Management Review*, 21(4), 1055. <https://doi.org/10.2307/259164>
- Lennox, L., Maher, L., & Reed, J. (2018). Navigating the sustainability landscape: A systematic review of sustainability approaches in healthcare. *Implementation Science*, 13(1), 27.
- Li, R. C., & Tee, M. L. (2021). Developing an Implementation Framework for Automated Customer Support Service in Collaborative Customer Relationship Management Systems. *2021 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)*, 1092-1095. <https://doi.org/10.1109/IEEM50564.2021.9672894>
- Linton, J. D. (2002). Implementation research: state of the art and future directions. *Technovation*, 22(2), 65–79. [https://doi.org/10.1016/s0166-4972\(01\)00075-x](https://doi.org/10.1016/s0166-4972(01)00075-x)
- Miles, M. B., Huberman, A. M., & Saldaña, J. (1988). *Qualitative Data Analysis: A Methods Sourcebook*. <http://cds.cern.ch/record/2261864>
- Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & The PRISMA Group. (2009). Preferred Reporting Items for Systematic Reviews and Meta-Analyses: The PRISMA Statement. *PLoS Med*, 6(7), e1000097. <https://doi.org/10.1371/journal.pmed1000097>

- Morais, S. P., & Rodrigues, J. C. (2023). The Acceptance of Artificial Intelligence-based Solutions by Store Assistants in Food Retail. *IEEE International Conference on Engineering, Technology and Innovation (ICE/ITMC)*, 1-8. <https://doi.org/10.1109/ICE/ITMC58018.2023.10332368>
- Nguyen, T. H., Newby, M., & Macaulay, M. (2013). Information Technology adoption in small business: Confirmation of a proposed framework. *Journal of Small Business Management*, 53(1), 207–227. <https://doi.org/10.1111/jsbm.12058>
- Nicolás-Agustín, Á., Jiménez, D. J., & Maeso-Fernandez, F. (2021). The role of human resource practices in the implementation of digital transformation. *International Journal of Manpower*, 43(2), 395–410. <https://doi.org/10.1108/ijm-03-2021-0176>
- Park, S., & del Pobil, A. P. (2023). Service robots in hospitality: TAM perspectives. *International Journal of Hospitality Management*, 102, 103170. <https://doi.org/10.1016/j.ijhm.2022.103170>
- Powell, B. J., Mettert, K. D., Dorsey, C. N., Weiner, B. J., Stanick, C. F., Lengnick-Hall, R., Ehrhart, M. G., Aarons, G. A., Barwick, M. A., & Dorsey, C. N. (2021). The psychometric and pragmatic evidence rating scale (PAPERS) for measure development and evaluation. *Implementation Research and Practice*, 2, 26334895211037391.
- Rogers, E. M. (2003). *Diffusion of innovations*. Free Press.
- Smirnov, A., Pashkin, M., & Chilov, N. (2005). Personalized customer service management for networked enterprises. *IEEE International Technology Management Conference (ICE)*, 1-8. <https://doi.org/10.1109/ITMC.2005.7461283>
- Srivastava, R. K., & Rai, A. (2016). A unified approach for modeling innovation adoption and optimal model selection for the diffusion process. *Journal of Advances in Management Research*, 13(2), 154-178. <https://doi.org/10.1108/JAMR-03-2015-0021>
- Teter, B. (2024, January 9). Top Customer Support Quality Assurance (QA) tools: comparison. *Klaus*. <https://www.klausapp.com/blog/customer-service-quality-assurance-software/> Lastly accessed in July 11, 2024

Valdsalu, M. (2021, September 22). Software de controle de qualidade (QA) do atendimento ao cliente – tudo o que você precisa saber. *Klaus*. <https://www.klausapp.com/pt/blog/software-de-controle-de-qualidade-qa-do-atendimento-ao-cliente-tudo-o-que-voce-precisa-saber/> Lastly accessed in July 11, 2024

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *Management Information Systems Quarterly*, 27(3), 425. <https://doi.org/10.2307/30036540>

Yin, R. K. (2009). *Case Study Research: Design and Methods* (4th ed.). Sage Publications.