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**Perception and Approaches to New
Information Systems Acceptance in Digital
Transformation: a ServiceNow Case Study
Analysis**

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Preface

This master thesis serves as the culminating chapter of mine Management Master' degree program at the Ca' Foscari University, earning twenty-four CFU.

In today's digital era, efficiency and effective time management have become essential for companies to remain competitive. With a growing emphasis on digital transformation in both business and projects, this exploration of how digital transformation is perceived holds significant relevance. Throughout my academic journey, I have amassed the necessary knowledge to undertake this master thesis. Existing research, relevant theories, and external perspectives have provided valuable insights, enabling myself to address the research questions.

Undertaking this study has been a captivating and enriching experience, expanding my understanding of a topic that will undoubtedly shape my future (and present) career. While writing this master thesis presented challenges, it has also been a highly educational process, deepening my expertise in this critical area.

I extend my gratitude to the respondents who generously contributed to this master thesis. Their valuable insights have been instrumental in gaining a practical understanding of how things operate in real-world scenarios. Without their openness and cooperation, answering the research assignment would not have been possible, and i am appreciative of their support.

Additionally, i express my sincere appreciation to my supervisor, Giovanni Vaia, from the faculty of Management at the Ca' Foscari University. His guidance, profound knowledge of the research topic, and insightful recommendations have been invaluable to the success of this thesis. I am grateful for the support and dedicated effort he has invested in helping me throughout this academic endeavor.

Abstract

This master's thesis explores the specific focus on the acceptance of new information systems relatively to the stages of digital transformation. The research questions is centered on perceptions and approaches, starting from a literature review and prompting an analysis of relevant studies and articles.

The focus will be on business processes, this term refers to the set of activities, tasks, and workflows that organizations undertake to achieve their goals and deliver value to customers. Traditionally, these processes were often manual, time-consuming, and prone to errors. However, with the advent of digital technologies, organizations have the opportunity to streamline and automate their processes, leading to increased efficiency and improved outcomes.

The literature review is supported by two case studies in which we interviewed employees of two large companies, based in Italy, that work with ServiceNow as a part of their digital transformation journey. The most significant insight gained from our study is the considerable importance attributed to the initial phase of a digital transformation and communication. Even before its implementation or commencement, convincing impacted users and internal stakeholders within the company that evolution and change can lead to better long-term outcomes, despite potential short-term adaptation and investment challenges, emerged as one of the major obstacles towards digitization processes, process optimization, or the adoption of new information systems.

With the help of our theoretical and managerial implications we conclude that communication is a key factor for the acceptance of new information systems especially on the early stages of the digital transformation process. This consideration led us to propose a New Stage Model for Digital Transformation and Information System Acceptance that focuses on communication.

Keywords: Digital Transformation, Information System (IS), ServiceNow, Communication.

1. Introduction

The technological revolution in recent years has made significant strides, introducing a wide range of technologies, from early computers and mobile devices to neural networks, artificial intelligence, and machine learning, into our everyday lives. These tremendous advancements in technology have made digital transformation a popular topic not only in the service market but also in areas like Industry 4.0 and Smart Cities, gaining recognition even among the general public. This shift towards digitalization, embracing the latest trends, is often regarded as a monumental event on par with the industrial revolution. Similar to the historical transformation that revolutionized how things operated, we can clearly observe the impact that digital transformation is having on industries and businesses. Innovations are taking place across various organizations and in every industry. While digital transformation is not necessarily a new concept and has been present for some time, the definition of what it precisely entails can vary from one article or author to another. However, the general consensus among most definitions is that digital transformation is the process of leveraging digital technologies to establish new, modify, or enhance existing business processes, cultivate a digital-oriented culture, and enhance the customer experience to meet the rapid market demands of the digital age. New digital technologies such as social media, mobile devices, and big data are propelling society forward and reshaping the market. Customers now have higher expectations and a broader range of options to choose from, compelling companies and businesses to innovate and keep up with the latest trends in order to gain even the slightest competitive advantage. As a result, they must undergo digital transformation.

Many businesses implement digital transformation across their entire business model. There is ongoing research in this field, and numerous models and frameworks exist to guide organizations through the process of digital transformation, as we will see.

1.1 Statement of the Research Problem and Objectives

In this thesis we will discuss the gap in existing literature regarding the specific focus on acceptance and stages in the context of digital transformation. The approach we decided to take was an analysis of relevant studies and articles, supported by two case studies.

1.1.1 Research Questions

We will focus on the following research questions that will address the identified research problem and guide the study:

RQ1: What are the most relevant stages that organizations typically go through during a digital transformation journey?

RQ2: How do organizations perceive and approach the acceptance of new information systems during a digital transformation?

RQ3: What are the key factors influencing the acceptance of new information systems during a digital transformation journey?

RQ4: What lessons can be learned from case studies of companies that have implemented or work with ServiceNow in their digital transformation initiatives?

1.1.2 Research Objectives

Below you will find the research objectives that correspond to the research questions and provide a clear direction for the study.

Objective 1: To analyze the most relevant stages that organizations commonly experience during a digital transformation journey.

Objective 2: To examine how organizations perceive and approach the acceptance of new information systems during digital transformation.

Objective 3: To identify the key factors influencing the acceptance of new information systems during a digital transformation journey.

Objective 4: To conduct in-depth case studies of two companies that have implemented or work with ServiceNow to gain insights into their digital transformation experiences.

Objective 5: To derive lessons and best practices from the case studies to inform organizations embarking on digital transformation journeys involving ServiceNow.

1.1.3 Significance of the Study

The goal of the study is contributing to the existing body of knowledge on new information systems acceptance and the stages of digital transformation, highlight the practical implications for organizations seeking to enhance the acceptance of new information systems and navigate the stages of digital transformation effectively.

1.1.4 Limitations

The study could present some limitations, such as the generalizability of findings due to the specific context of the selected case studies, since we interviewed two companies which already have an open mind towards digitalization and because we focused on a specific tool used for digital transformation: ServiceNow. There are also constraints in accessing punctual data since companies could not disclose actual numbers or KPIs.

1.1.5 Conclusions

By defining the research problem, formulating research questions, establishing research objectives, and highlighting the significance of the study, this chapter sets the foundation for the subsequent research and analysis. It clarifies the focus on new information systems acceptance and the stages organizations go through during a digital transformation journey, with the analysis of two case studies involving ServiceNow. The research questions and

objectives guide the study, while the scope, limitations, and outline of the thesis provide a clear roadmap for the reader.

1.2 Background and Context of Digital Transformation and Optimization of Business Processes

Digital transformation has become a critical topic for organizations in recent years as they seek to keep up with the fast pace of technological change and stay competitive in a constantly evolving business environment. The term "digital transformation" refers, in brief, to the process of using digital technologies to fundamentally change how businesses operate and deliver value to their customers.

Digital transformation is a multifaceted concept, it involves the integration of digital technologies into all aspects of an organization's operations, from customer engagement to back-end processes. The goal of digital transformation is to enable businesses to be more agile, innovative, and responsive to changing market conditions and customer demands. According to Gartner, digital transformation is “ *the process of exploiting digital technologies and supporting capabilities to create a robust new digital business model* ”. Digital transformation is not just about adopting new technologies, but also involves rethinking business processes and models to leverage the full potential of these technologies.

The importance of digital transformation for organizations cannot be overstated. In today's hyper-connected world, customers expect seamless and personalized experiences across all touchpoints. Digital transformation enables organizations to meet these expectations by leveraging data and digital technologies to gain insights into customer needs and preferences, and to deliver more personalized products and services.

Speaking of data another impact of digital transformation on business processes is the ability to integrate different systems and data sources. This integration allows for seamless data flow between different parts of the organization, enabling better decision-making and collaboration. For example, integrating customer data with production data can help organizations optimize their supply chain and improve customer service. Moreover, digital

transformation can help organizations improve operational efficiency and reduce costs by automating manual processes, eliminating waste, and optimizing workflows. Digital transformation can also enable organizations to create new revenue streams and business models by leveraging new technologies such as the Internet of Things (IoT), artificial intelligence (AI), and blockchain.

There are several drivers of digital transformation. One of the key drivers is customer demand for personalized experiences and convenience. Customers today expect to interact with businesses across multiple channels and devices, and to receive tailored experiences based on their preferences and behavior. Another driver is the need for businesses to remain competitive in a fast-paced and constantly changing business environment. Companies that fail to embrace digital transformation risk falling behind their competitors and losing market share. Moreover, regulatory and compliance requirements are also driving digital transformation, as businesses seek to comply with new regulations such as GDPR and CCPA.

The benefits of digital transformation are numerous, including enhanced agility and flexibility, and the ability to create new revenue streams and business models. However there are also challenges associated with implementing digital transformation initiatives. One of the key challenges is the need to integrate new technologies with existing systems and processes. Legacy systems can be difficult to integrate with new technologies, and organizations may need to invest in new infrastructure to support digital transformation initiatives. There is also the need to overcome cultural resistance to change, the complexity of integrating new technologies into existing systems and processes, and the difficulty of managing data privacy and security in a digital environment. Data privacy and security are also important considerations in digital transformation initiatives. As organizations collect and use more data, they need to ensure that they are complying with data privacy regulations and protecting sensitive data from cyber threats.

Digital transformation is a critical concept for organizations in the digital age. It involves the integration of digital technologies into all aspects of an organization's operations and can enable businesses to improve customer experience, increase operational efficiency, and

create new revenue streams and business models. While there are significant challenges associated with digital transformation, the benefits usually far outweigh the costs. As such, organizations that fail to embrace digital transformation risk being left behind in a rapidly changing business environment.

1.3 Overview of ServiceNow as a Platform for Managing Business Processes

In today's dynamic business landscape, organizations are constantly striving to enhance their operational efficiency, improve customer service, and optimize their business processes. With the increasing reliance on digital technologies, companies are seeking comprehensive platforms that can streamline and automate their business workflows. ServiceNow has emerged as a leading cloud-based platform that offers a wide range of capabilities for managing business processes. This chapter provides an overview of ServiceNow as a platform for effectively managing and optimizing business processes within organizations. Before delving into the specifics of ServiceNow as a platform, it is essential to understand the background and context of business process management. Business processes refer to the set of activities, tasks, and workflows that organizations undertake to achieve their goals and deliver value to customers. Traditionally, these processes were often manual, time-consuming, and prone to errors. However, with the advent of digital technologies, organizations have the opportunity to streamline and automate their processes, leading to increased efficiency and improved outcomes.

As organizations strive to enhance their operational effectiveness, a need for a robust and comprehensive platform that can facilitate the management and optimization of business processes arise. ServiceNow, with its extensive set of features and capabilities, has gained significant traction as a platform that can address this need. It offers a unified solution that enables organizations to automate, standardize, and optimize their business processes, leading to improved efficiency, better resource utilization, and enhanced customer satisfaction.

ServiceNow provides a multitude of features and functionalities that empower organizations to manage their business processes effectively. These features include:

- **Process Automation:** ServiceNow enables organizations to automate repetitive tasks, approvals, and notifications, reducing manual effort and improving process efficiency. It offers a visual workflow designer that allows users to create and manage complex workflows with ease.

- **Service Catalog and Request Management:** ServiceNow provides a service catalog that allows organizations to define and publish various services for internal users. It enables streamlined request management, automates approval processes, and provides a self-service portal for users to submit and track their requests.

- **Incident and Problem Management:** ServiceNow offers robust incident and problem management capabilities, allowing organizations to effectively track, prioritize, and resolve incidents and problems. It facilitates incident categorization, escalation, and collaboration among teams, leading to quicker resolution and minimized business impact.

- **Change and Release Management:** ServiceNow provides functionalities for managing change requests and releases within organizations. It enables organizations to plan, assess, and implement changes in a controlled and systematic manner, minimizing risks and disruptions.

- **Reporting and Analytics:** ServiceNow offers powerful reporting and analytics capabilities, providing organizations with insights into their process performance, bottlenecks, and areas for improvement. It offers pre-built dashboards, customizable reports, and data visualization tools for effective decision-making.

With this chapter we wanted to provide an overview of ServiceNow as a platform for managing business processes within organizations. Highlight the background and need for business process management platforms and discuss the key features and functionalities offered by ServiceNow.

1.4 Outline of the Thesis

The master's thesis follows a conventional format for academic reports, adhering to a traditional structure. This includes an examination of pertinent literature, an overview of the research methodology employed, a presentation of findings derived from data collection, and a comprehensive analysis and conclusion. After Chapter 1 “Introduction”, this work will highlight the Research Methodology in Chapter 2. Chapter 3 focuses on a Literature Review on various topics, opening the way to “Case Studies” the fourth Chapter of this thesis in which we will discuss about about the data gathered with questionnaires and interviews on our case studies. Chapter 5 “Results and Discussions” lists the findings in relation to the research problems and objectives and will provide a summary of the work together with a proposed model for digital transformation stages and some recommendations for future research.

2. Research Methodology

2.1 Research Approach and Design

In this case, we thought that a mixed methods approach could be suitable, combining both quantitative and qualitative methods to gather comprehensive insights.

The methodology include the following components:

- Literature Review: a thorough review of existing literature on digital transformation, business process optimization, and the use of ServiceNow. This will provide a theoretical foundation for the study and help identify research gaps.
- Case Studies: multiple case studies to explore how different organizations have implemented digital transformation and optimized business processes using ServiceNow. This can provide real-world examples and insights into the challenges, benefits, and outcomes of such implementations.
- Surveys or Questionnaires: surveys or questionnaires to gather quantitative data from organizations that have implemented ServiceNow for digital transformation and process optimization. The survey include questions related to the impact of digital transformation on various aspects of the business, the effectiveness of ServiceNow in achieving optimization goals, and the challenges encountered during implementation.
- Interviews: Conduct interviews with key stakeholders, such as managers, executives, or IT professionals, to obtain qualitative data and deeper insights into their experiences with digital transformation and ServiceNow. The interviews can explore topics such as decision-making processes, implementation strategies, and perceived benefits or challenges.

2.2 Data Analysis Techniques

To analyze the collected data, we considered the following technique:

Qualitative Analysis: Employ thematic analysis or content analysis to analyze the qualitative data from interviews and document analysis. This involves identifying themes, patterns, and key findings to develop a rich understanding of the digital transformation and optimization processes.

2.3 Case Selection and Sample Description

In this chapter, we examine the selection of cases and provide a description of the sample used in our study, which focuses on companies work with different clients that have incorporated ServiceNow as part of their digital transformation strategic initiatives. Although the number of respondents is small, we believe that our sample adequately represents actors in similar positions, since the experience and relevance of the companies is quite remarkable. However, it is important to note that the results cannot be generalized due to the limited number of respondents (Jacobsen, 2015) and that due to time constraints, the sample size in our research is restricted. Consequently, we decided to conduct a case study involving two companies. To ensure anonymity, both the participating companies and individuals were recruited through our professional network. Table 1 provides an overview of the companies and participants, in the Result chapter the positions held by the participants within their respective firms and the area of business in which they operate are listed. All of the questions both in the questionnaires and interviews were conducted in English in order for the data gathered to be more accurate without the need for a translation.

	Company X	Company Y
Business	Consulting	IT Support
Size	Big	Big
Number of Interviewees	12	8

Table 1

3. Literature Review

3.1 The Concept of Digital Transformation and its Importance for Organizations

This paragraph provides an analysis of literature on various aspects and maturity levels of digital transformation. Starting with a notable article by G. Westerman, C. Calm ejane, D. Bonnet, P. Ferraris, and A. McAfee titled “*Digital Transformation: A Roadmap for Billion-Dollar Organizations*”, this study presents a five-step roadmap for digital transformation. It begins with gaining a clear understanding of the organization's current state and future vision. The next step involves identifying key business processes suitable for digital transformation. Subsequently, a digital strategy is developed, outlining the necessary tools and technologies to achieve organizational goals. Implementation of the digital strategy, the fourth step, requires meticulous planning and coordination across all levels of the organization. The final step entails continuous monitoring and evaluation to ensure expected benefits are realized and allows for necessary adjustments. The authors stress the importance of leadership in driving digital transformation, with senior executives championing the initiative and effectively communicating its significance to all stakeholders. They also emphasize the need for collaboration across departments, as digital transformation requires a comprehensive approach beyond individual units. This literature provides valuable insights and guidance, highlighting the significance of a strategic, holistic approach to digital transformation, along with leadership, collaboration, and continuous monitoring and evaluation.

Regarding the impact of digital transformation on business models “*Digital transformation: opportunities to create new business models*” by Berman Saul J. argues that it is necessary for organizations to adapt in order to remain competitive. The author asserts that digital transformation is not just a matter of adopting new technologies, but requires a fundamental rethinking of business models in order to remain competitive in today's rapidly changing business environment. The article begins by outlining the key characteristics of digital transformation, including the use of new technologies such as cloud computing, big data

analytics, and artificial intelligence, as well as the increasing importance of digital channels for customer interactions. The author then explore the impact of digital transformation on different aspects of the business model, including value creation, value delivery, and revenue models. One of the key insights of the article is that digital transformation is leading to the creation of new business models that are more customer-centric, agile, and data-driven. For example, companies are increasingly using digital technologies to personalize their products and services, to improve the speed and efficiency of their operations, and to create new revenue streams through the monetization of data. However, the author also note that digital transformation can pose significant challenges for organizations, including the need to adapt to these new technologies, to develop new skills and competencies, and to manage the risks associated with data privacy and security. Overall this article emphasizes the need for organizations to adapt and transform their business models in order to remain competitive, and provides insights into the key trends and challenges associated with digital transformation.

Another important topic is thinking about how digital transformation is changing the nature of work and discuss the implications for organizations. Leimeister J.M., & Blohm I. in *“Digitalization and the Future of Work”* argue that the ongoing digital transformation is fundamentally reshaping the workforce, requiring organizations to adapt to new technologies and ways of working in order to remain competitive. The article begins by highlighting some of the key trends associated with digital transformation, including the increasing use of automation and artificial intelligence, the rise of remote and flexible work arrangements, and the growing importance of digital skills and competencies. The authors then discuss the implications of these trends for the future of work, focusing on the need for organizations to foster a culture of innovation and adaptability. One of the key insights of the article is that digital transformation is not just about implementing new technologies, but also requires a shift in organizational culture and mindset. The authors argue that organizations need to embrace a more agile and collaborative approach to work, and to invest in training and development programs that help employees acquire the skills and competencies needed to succeed in a rapidly changing digital environment. In addition, the article discusses the importance of addressing the ethical and social implications of digital transformation, including issues related to privacy, data security, and the impact of automation on jobs and society. This work provides a valuable perspective on the ongoing

digital transformation and its implications for the future of work. In particular it emphasizes the need for organizations to adapt and embrace new ways of working in order to remain competitive, while also highlighting the importance of addressing the ethical and social implications of digital transformation.

I would like to finish this paragraph talking about challenges and methods for future research, as Hanelt A., & Bohnsack R., & Marz D., & Marante C.A. in their article “*A systematic review of the literature on digital transformation: insights and implications for strategy and organizational change*” argue that digital transformation is a complex and multidimensional process, so it is crucial to identify key challenges and opportunities for future works. To start it is important to highlight the key drivers and outcomes of the process. The authors identify several drivers of digital transformation, including changes in customer expectations, the rise of new technologies, and increasing competition in global markets. They also note that digital transformation can lead to a range of outcomes, including improved operational efficiency, enhanced customer experiences, and the creation of new business models. Several challenges and barriers to digital transformation also arise, including issues related to organizational culture, data security and privacy, and the need for digital skills and competencies. The authors highlight the importance of addressing these challenges in order to fully realize the potential benefits of digital transformation. In addition, the article discusses several areas of future research, including the need for more empirical studies on the impact of digital transformation on organizational performance, the development of new models and frameworks for understanding digital transformation, and the exploration of ethical and social implications of digital transformation. Overall, the article provides a valuable overview of the concept of digital transformation and the key challenges and opportunities facing organizations as they seek to implement this process. The article highlights the importance of addressing issues related to organizational culture, data security and privacy, and the need for digital skills and competencies, and identifies several areas of future research that will help to advance our understanding of digital transformation.

Another insightful article on this topic is “*Understanding digital transformation: A review and a research agenda*” by Vial G. The article then provides a detailed review of the

existing literature on digital transformation and its impact on organizational performance. The author highlights the various ways in which digital transformation can improve performance, such as by increasing operational efficiency, enhancing customer experiences, and enabling innovation. However, the author also notes that the relationship between digital transformation and organizational performance is complex and multifaceted, and that the outcomes of digital transformation may be influenced by a variety of factors, such as organizational culture, leadership, and strategy. In addition, the article identifies several areas of future research that will help to advance our understanding of digital transformation and its impact on organizational performance. These include the need for more empirical studies that use rigorous research methods, the exploration of the role of digital platforms and ecosystems in digital transformation, and the investigation of the impact of digital transformation on non-financial performance outcomes, such as employee engagement and social responsibility.

3.2 The role of ServiceNow in Digital Transformation and Process Optimization

In order to provide an overview of ServiceNow as a platform for digital transformation, and to discuss the various capabilities and benefits of the platform we will refer to a whitepaper published by the company itself “*ServiceNow: A Platform for Digital Transformation*”. The paper highlights the various capabilities of the platform, such as its ability to streamline business processes, automate workflows, and provide real-time insights into performance and operations. It starts by discussing the current landscape of digital transformation, and the challenges that organizations face when trying to implement digital initiatives. It then introduces ServiceNow as a platform that can help organizations overcome these challenges, by providing a centralized platform for managing digital transformation efforts. The paper goes on to describe the various features of the ServiceNow platform, such as its robust IT service management capabilities, its workflow automation tools, and its ability to integrate with other enterprise systems. It also discusses the benefits that organizations can expect to see from implementing ServiceNow, such as increased efficiency, improved customer experiences, and better visibility into business operations. In addition, it provides several examples of organizations that have successfully implemented ServiceNow to drive digital

transformation. These case studies demonstrate how ServiceNow can be used to streamline processes, reduce costs, and improve service delivery across a variety of industries.

The researches and articles on ServiceNow are rather limited, we identified the following studies as the more relevant ones:

Bhise and Banubakode's article "*ServiceNow as a Platform*" delves into the capabilities of the ServiceNow platform in the context of big data technology and business analytics. The article provides an in-depth understanding of how ServiceNow can serve as a versatile platform for managing large-scale data and analytics processes. It explores the features and functionalities that enable organizations to harness the power of data and transform it into valuable insights. The article also addresses the role of ServiceNow in integrating various data sources and facilitating cross-functional collaboration to enhance decision-making processes. By analyzing this article, we gain insights into how ServiceNow can play a pivotal role in supporting data-driven decision-making and enabling organizations to stay competitive in the era of big data.

Kowalczyk's doctoral dissertation "*Application of the ServiceNow Platform for the Implementation of Business Processes*" focuses on the practical implementation of ServiceNow in real-world business processes. The study investigates how organizations adopt and leverage ServiceNow to optimize their processes, enhance operational efficiency, and improve customer experiences. The dissertation provides a comprehensive analysis of case studies and practical examples where ServiceNow has been successfully implemented. By examining Kowalczyk's work, we gain valuable insights into the challenges faced during the implementation process, the key success factors, and the measurable impacts on business performance. The findings from this research can guide organizations in their endeavors to utilize ServiceNow effectively and maximize its potential benefits.

Kahlout's book chapter, "*Innovators' ITSM Strategy*" explores the role of ServiceNow in the realm of IT service management (ITSM). The chapter provides insights into how innovative organizations leverage ServiceNow to transform their IT service delivery, streamline incident and change management, and enhance user satisfaction. The book chapter delves into best practices and strategies adopted by innovators in their ITSM processes and highlights how ServiceNow's features contribute to these improvements. By examining

Kahlout's work, we gain valuable knowledge about the specific ITSM use cases where ServiceNow is most effective and how it can be tailored to meet the unique needs of diverse organizations.

3.3 Relevant Theories and Models for Understanding Digital Transformation and Process Optimization

Digital transformation and process optimization are complex phenomena that require a deep understanding of the underlying theories and models. In this paragraph, we will examine some of the key theories and models that have been developed to understand digital transformation and process optimization.

The Resource-based View (RBV) Theory, illustrated by Madhani P. in his “*Resource Based View (RBV) of Competitive Advantage: An Overview*”, suggests that a firm's resources and capabilities are the key drivers of its competitive advantage. In the context of digital transformation and process optimization, the RBV theory can be applied to understand how organizations can leverage their existing resources and capabilities to achieve digital transformation and process optimization. For example, an organization with a strong IT infrastructure and skilled IT staff may be well-positioned to leverage technology to optimize its business processes.

“*Business process reengineering: A theoretical framework and an integrated model*” is a relevant work by Motwani, J., & Kumar, A., & Jiang, J., & Youssef, M. In which the authors discuss the Business Process Reengineering (BPR) Model, a framework for redesigning business processes to achieve significant improvements in cost, quality, and service. The BPR model is based on the premise that organizations should not simply automate their existing processes, but rather rethink and redesign them to achieve radical improvements. In the context of digital transformation and process optimization, the BPR model can be used to guide organizations in rethinking their business processes and leveraging technology to achieve radical improvements.

The Lean Six Sigma (LSS) Model is a framework for improving business processes by reducing waste and variability. The LSS model is based on the principles of lean manufacturing and Six Sigma, and has been widely applied in the manufacturing industry. In the context of digital transformation and process optimization, the LSS model can be used to guide organizations in identifying inefficiencies in their business processes and using technology to reduce waste and variability. “*The integration of Six Sigma and lean management*” by Salah, S., & Rahim, A., & Carretero, J.A. provides a detailed description of the model.

The Agile Development Model is a framework for software development that emphasizes collaboration, flexibility, and continuous improvement. The Agile development model is based on the principles of the Agile Manifesto, which values individuals and interactions, working software, customer collaboration, and responding to change. In the context of digital transformation and process optimization, the Agile development model can be used to guide organizations in developing and implementing technology solutions that are flexible, adaptable, and responsive to changing business needs. However the model presents also some challenges as Hajjdiab H., & Taleb A.S. write in their “*Adopting Agile Software Development: Issues and Challenges*”.

The Digital Business Model Canvas (DBMC) is a framework for designing digital business models that are aligned with the needs and expectations of customers. The DBMC is based on the Business Model Canvas, which is a popular framework for designing traditional business models. In the context of digital transformation and process optimization, the DBMC can be used to guide organizations in designing and implementing digital business models that leverage technology to deliver value to customers, as highlighted by Sabri M.O., & Al-Qawasmi K.A., & Odeh M., & Aydin M.E. in their “*Adoption of Business Model Canvas in Exploring Digital Business Transformation*”.

The last two models that we want to focus on are, in our opinion, the most impactful and relevant in their sphere: the Technology and Acceptance Model and the DeLone and McLean Model of Information Systems Success.

- The Technology Acceptance Model (TAM) is a widely used theoretical framework for understanding user acceptance and adoption of technology. Developed by Fred Davis in 1989, TAM proposes that perceived usefulness (PU) and perceived ease of use (PEOU) are the key determinants of user acceptance of technology. According to the model, if users perceive a technology as useful and easy to use, they are more likely to adopt it. Perceived usefulness refers to the degree to which a user believes that a technology will enhance their performance in achieving certain goals or tasks. Perceived ease of use, on the other hand, refers to the degree to which a user believes that a technology will be free of effort to use. The TAM posits that these two factors are the primary determinants of user acceptance of technology, and that they are influenced by external variables such as social influence and individual differences. One of the strengths of TAM is its simplicity and ease of use. The model is easy to understand and apply, making it a popular choice for researchers and practitioners alike. Additionally, TAM has been widely validated and tested across a variety of settings and technologies, demonstrating its generalizability and robustness. However, TAM also has some limitations. Critics have argued that the model is too simplistic, and that it does not take into account other important factors that may influence user acceptance, such as user experience, system reliability, and security concerns. Additionally, some researchers have raised concerns about the limited scope of the model, which focuses mainly on individual-level factors and does not consider broader social and organizational influences on technology acceptance. Despite these limitations, TAM remains a widely used and influential framework for understanding technology acceptance and adoption. It has been applied to a wide range of technologies, including mobile devices, social media, and enterprise software, and continues to inform research and practice in the field of information systems. Now we will propose a brief literature review of this model:

“A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies” by Viswanath Venkatesh et al.: This paper proposes an extension to the Technology Acceptance Model (TAM) by including additional variables, such as social influence and cognitive instrumental processes. The authors test their extended model in four longitudinal studies, finding support for the model's ability to predict technology acceptance and use. This paper is important for providing a more comprehensive understanding of the factors that influence individuals' acceptance of technology.

“User Acceptance of Computer Technology: A Comparison of Two Theoretical Models” by Fred Davis: This paper compares two theoretical models of technology acceptance, the Technology Acceptance Model (TAM) and the Theory of Reasoned Action (TRA), finding that TAM better predicts user acceptance of computer technology. The paper also suggests that perceived usefulness and perceived ease of use are important factors in technology acceptance. This paper is significant for validating the usefulness of the TAM and for providing evidence for the importance of perceived usefulness and ease of use.

“Intentions to Use Information Technologies: An Integrative Model” by Ron Thompson, Deborah Compeau & Chris Higgins : presents an integrative model that seeks to explain individuals' intentions to use information technologies. The authors address the persistent challenge of predicting technology adoption and usage by proposing a comprehensive framework that synthesizes various established theories. Published in the journal *Information Systems Research* in 1991, this article has significantly contributed to the understanding of technology acceptance and usage behavior.

The study recognizes that predicting technology adoption involves multiple cognitive and social factors. To address this complexity, the authors draw upon three widely recognized theoretical models: the Theory of Reasoned Action (TRA), the Theory of Planned Behavior (TPB), and the Technology Acceptance Model (TAM). These models collectively emphasize the importance of attitudes, subjective norms, and perceived behavioral control in shaping behavioral intentions.

Thompson, Compeau, and Higgins propose an integrative model that extends the TAM by integrating elements from TRA and TPB. They argue that while TAM provides a strong foundation, augmenting it with the social aspects of TRA and TPB can enhance its predictive power. The proposed model posits that attitudes toward usage, subjective norms, and perceived behavioral control directly influence behavioral intentions, which, in turn, determine actual usage behavior.

“Issues in Predicting and Explaining Usage Behaviors with the Technology Acceptance Model and the Theory of Planned Behavior” by Rawstorne, Patrick; Jayasuriya, Rohan; and Caputi, Peter: This paper tests the Technology Acceptance Model (TAM) in the context of implementation of an IS in an organization. The authors find support for the TAM, with

perceived usefulness and perceived ease of use being significant predictors of behavioral intentions towards computerization. The paper also suggests that external variables, such as job relevance and compatibility, may impact technology acceptance. This paper is important for providing evidence for the applicability of the TAM in organizational settings and for highlighting the influence of external variables on technology acceptance.

“Predicting User Intentions: Comparing the Technology Acceptance Model with the Theory of Planned Behavior” by Mathieson Kieran: This paper compares the Technology Acceptance Model (TAM) with the Theory of Planned Behavior (TPB) for predicting user intentions towards a new technology. The authors find that TAM and TPB have similar predictive power, but that TAM is easier to apply in practice. This paper is relevant for providing a comparison of two theoretical models and for highlighting the importance of ease of use in predicting user intentions.

On the other hand the DeLone and McLean Model of Information Systems Success (D&M Model) is a widely cited model for evaluating the success of information systems (IS). The model was first proposed in 1992 and has undergone revisions since then, with the most recent update published in 2003. The D&M Model proposes six dimensions of IS success: system quality, information quality, service quality, use, user satisfaction, and net benefits. System quality refers to the technical quality of the IS, including reliability, response time, and usability. Information quality refers to the relevance, accuracy, and completeness of the information provided by the IS. Service quality refers to the quality of service provided by the IS support staff. Use refers to the extent to which the IS is used by its intended users. User satisfaction refers to the user's satisfaction with the IS, including their perceptions of its usefulness and ease of use. Finally, net benefits refer to the positive outcomes that result from using the IS, such as increased productivity or reduced costs. The D&M Model has been widely used in IS research to evaluate the success of various IS applications. It has also been applied in practice, as organizations have used the model to evaluate their own IS projects. The model has received criticism for its focus on user satisfaction and net benefits, which some argue may not be the most important measures of IS success. Additionally, the model has been criticized for its lack of consideration of contextual factors, such as organizational culture or user attitudes. Despite these criticisms, the D&M Model remains a widely used and influential framework for evaluating the success of IS.

3.4 Digital Transformation: Stages

As we already saw digital transformation has become a critical endeavor for organizations seeking to adapt and thrive in an increasingly digital landscape. As part of this transformation, organizations often adopt new information systems to enhance their operations, improve efficiency, and achieve strategic objectives. This chapter of the literature review explores the stages that organizations typically go through during a digital transformation journey, with a specific focus on the acceptance of new information systems.

The already cited “*Digital Transformation: A Roadmap for Billion-Dollar Organizations*”, offers valuable insights into the stages of digital transformation.

A relevant study by Reis, J., Amorim, M., Melão, N., Matos, P., “*Digital Transformation: A Literature Review and Guidelines for Future Research*”, contributes to the understanding of digital transformation stages. The study proposes a three-stage framework: initiation, implementation, and institutionalization. In the initiation stage, organizations recognize the need for change and set digital transformation goals. During the implementation stage, organizations execute the transformation strategy and adopt new information systems. Finally, the institutionalization stage focuses on embedding digital capabilities into the organization's culture and structure. This framework highlights the importance of systematic progression through stages to achieve successful digital transformation.

To further understand the acceptance of new information systems during a digital transformation journey, it is essential to consider the factors influencing user acceptance and adoption. The book “*Digital Transformation: A Model to Master Digital Disruption*”, by Caudron J., & Van Peteghem D., introduces a four-step model for digital transformation. The model emphasizes engaging leadership, developing a digital strategy, building digital capabilities, and delivering value through digital innovation. User acceptance is crucial in each stage, as effective leadership aligns digital strategy with business goals and creates a supportive environment for new system adoption. Additionally, building digital capabilities and delivering value require user acceptance and utilization of the new information systems.

“Digital transformation: A systematic literature review” by Zhu X., & Ge S., & Wang N., contributes insights into the stages of digital transformation. The study proposes a comprehensive six-phase model: visioning, strategy, innovation, implementation, adaptation, and outcome. In the visioning phase, organizations establish a clear vision and goals for digital transformation, including the acceptance and integration of new information systems. The strategy phase focuses on defining the approach and roadmap for the transformation journey, encompassing the acceptance of new technologies. Subsequently, the innovation phase explores and adopts innovative information systems. Implementation addresses the execution and deployment of the new systems, while the adaptation phase emphasizes iterative adjustments based on feedback and evolving business needs. Lastly, the outcome phase evaluates the results and impacts of the digital transformation efforts, including the acceptance and utilization of new information systems.

3.5 Conclusions

Digital transformation has become a buzzword in today's business environment, with organizations of all sizes and industries exploring ways to leverage technology to enhance their operations. The literature highlights the importance of digital transformation as a strategic initiative that can improve the overall performance of an organization, increase operational efficiency, and create new business opportunities. The impact of digital transformation on business processes is significant, as it can enable organizations to streamline their operations, automate routine tasks, and eliminate unnecessary manual interventions. Digital transformation can also provide organizations with real-time insights into their operations, enabling them to make data-driven decisions and respond quickly to changing market conditions. The literature shows that ServiceNow can play a critical role in supporting digital transformation initiatives by enabling organizations to automate their business processes, improve collaboration and communication across teams, and gain real-time visibility into their operations. ServiceNow can help organizations to streamline their workflows, automate routine tasks, and reduce the burden on employees, freeing them up to focus on more strategic initiatives. ServiceNow's ability to integrate with other systems and tools also makes it a valuable platform for organizations looking to create a unified digital ecosystem. The literature also discusses relevant theories and models for understanding digital transformation and process optimization. These include the Technology Acceptance

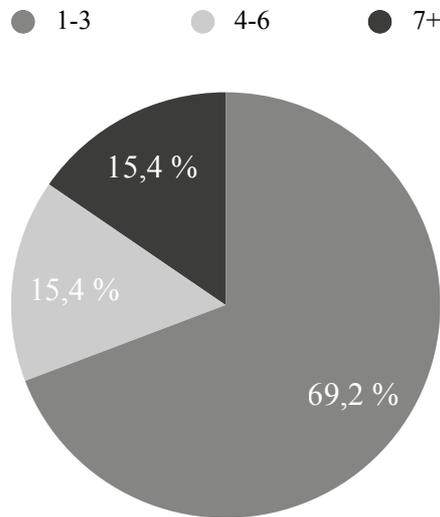
Model (TAM), which explains the factors that influence user acceptance of new technologies, the Business Process Reengineering (BPR) model, which emphasizes the need for organizations to rethink their existing processes to achieve significant improvements in efficiency and effectiveness and the DeLone and McLean Model of Information Systems Success (D&M Model), which is used to evaluate the success of an IS implementation. The literature also highlights the importance of change management in digital transformation initiatives, as organizations need to address cultural and behavioral changes to ensure successful implementation. Overall, the literature review shows that digital transformation and process optimization are critical initiatives for organizations looking to improve their operations and gain a competitive edge in the market. ServiceNow can play a vital role in supporting these initiatives, providing organizations with the tools they need to streamline their operations, automate routine tasks, and gain real-time insights into their operations.

4. Case Studies

In this chapter, we will look at the within-case results from each case. Due to anonymization, the cases are referred to as the following: Case 1: Company X, Case 2: Company Y. Some questions were slightly different in the two cases because of the different businesses in which the companies interviewed operate.

4.1 Case 1: Company X

How many ServiceNow implementations have you been involved in?



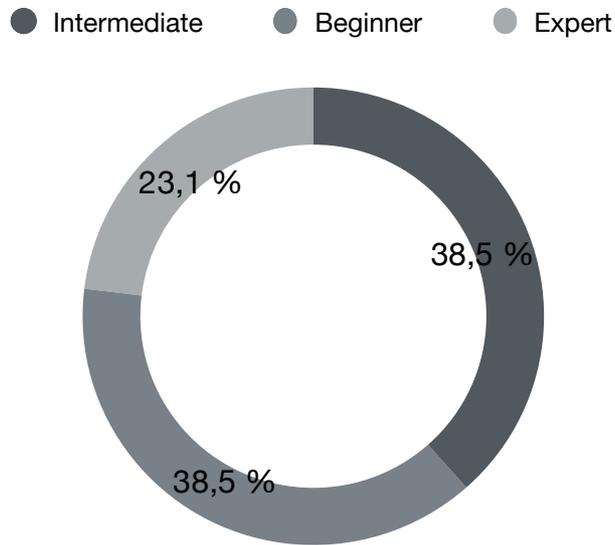
Graph 1

What industries have you worked with during ServiceNow implementations?

Industry	Interviewed which had worked with this Industry
Healthcare	75%
Government/Public Sector	58.3%
IT/Technology	41.7%
Finance/Banking	33.3%
Manufacturing	25%

Table 2

How would you rate your proficiency in implementing ServiceNow solutions?



Graph 2

What roles have you performed during ServiceNow implementations?

Role	% of Interviewed
Development and customization	61.5%
Solution Design and Configuration	53.8%
Project Management	46.2%
Requirements gathering and analysis	46.2%
Delivery Lead	23.1%
Testing and Quality Assurance	23.1%
Training and User Adoption	7.7%

Table 3

In your experience, what are the common challenges faced during ServiceNow implementations?

Challenge	%
Resistance to change from employees/stakeholders	61.5%
Limited resources or budget constraints	38.5%
Data migration and cleansing issues	30.8%
Lack of clear requirements or scope definition	30.8%
Integration complexity with existing systems	7.7%

Table 4

We can see how technicality is not the problem but the major obstacle is represented by the resistance to change, followed by budget constraints. Communication is key in order to change the mindset of the companies and making them understand that implementing new IS could be beneficial in the long run, even though at the start of a new implementation some resources will be needed to train the users and the cost could be greater than the short term financial gains.

Interviews/Open Questions

Interviews were conducted just with the respondents that had a lot of experience in the field in order to have some more insightful informations. We started the interviews with a question regarding the approach taken during implementations. In particular a sample question was: “How do you typically address or overcome these challenges during ServiceNow implementations? Please provide some strategies or approaches you have found effective”

The responses provided offer various strategies and approaches for addressing challenges during ServiceNow implementations. While each response has its unique focus, they also

share common themes such as communication, stakeholder engagement, and clear expectations.

Let's analyze them in more detail:

1st Response: “Workshops, communication, train the trainer, demos.”

This response emphasizes the importance of hands-on workshops, effective communication, training the trainers, and providing demonstrations to address implementation challenges.

This strategy aims to enhance understanding and engagement among stakeholders.

2nd Response: “Set clear expectations of the deliverable and find a "sponsor" in the target company.”

This response highlights the significance of setting clear expectations for the desired outcomes of the implementation. Additionally, finding a dedicated "sponsor" within the target company can help advocate for and drive platform adoption, ensuring its success.

3rd Response: “Clear communication and transparency, progress reports, comprehensive training programs.”

This response focuses on the importance of clear communication and transparency throughout the implementation process. It emphasizes the need to communicate the reasons behind the implementation, highlight benefits, address concerns, and provide progress reports to keep stakeholders informed and engaged. Comprehensive training programs are also suggested to ensure employees understand the purpose, benefits, and functionalities of ServiceNow.

4th Response: “Define a clear change management process, engage all stakeholders, provide use cases with ROI.”

This response emphasizes the need for a well-defined change management process and involving all stakeholders, including the business, from the early stages of the implementation. It suggests showcasing use cases that demonstrate return on investment (ROI) to gain buy-in and support for the implementation.

5th Response “Clear communication with the client.”

Analysis: This response underscores the importance of maintaining clear and open communication with the client throughout the implementation. Effective communication helps ensure alignment, address concerns, and foster a collaborative approach to overcoming challenges.

In summary, these responses collectively emphasize the significance of communication, stakeholder engagement, clear expectations, transparency, and training programs in addressing challenges during ServiceNow implementations. These approaches are relevant in any IS implementation strategy since the majority of the time the product that is developed or the functionalities that are added or integrated are new.

In particular we can see how communication seems to be the key factor: to gain support and trust, in order to make sure that everyone is on the same page with clear targets and objectives and finally to ensure that the final user is well trained and satisfied with the solution.

The second question was a more technical one, in order to have an insight on what are the more relevant aspects concerning the evaluation of a solution. The questions was “How do you measure the success of a ServiceNow implementation? Please measure any key performance indicators (KPIs) or metrics you typically use.”

The answers provided offer various key performance indicators (KPIs) and metrics to measure the success of a ServiceNow implementation.

Let's analyze them in more detail, identifying commonalities and differences:

The first answer emphasizes as KPIs: time-saving, FTE (Full-Time Equivalent) reduction, service response time, resolution time, number of dematerialized documents.

This response focuses on efficiency and productivity-related metrics. It suggests measuring the time saved through the implementation, reduction in workforce requirements (FTE), improvement in service response and resolution times, and the number of documents transitioned to digital format. These metrics highlight the impact on operational efficiency and resource utilization.

The second answer highlight the importance of the number of issues generated after the implementation.

This response highlights the importance of monitoring the number of issues or problems that arise after the implementation. It indicates the need to measure the occurrence of post-implementation issues, which can serve as an indicator of potential challenges or areas requiring further improvement.

The third answer focuses on the percentage of employees actively using ServiceNow compared to the total number of stakeholders, user logins, requests submitted, etc.

This response emphasizes the adoption and engagement of stakeholders. It suggests measuring the percentage of employees actively using ServiceNow in relation to the total number of stakeholders. User logins and the number of requests submitted are additional metrics that reflect engagement and utilization levels.

Number of manual steps versus automated ones and time to complete a process was the answer of the fourth interviewee.

This response focuses on process efficiency. It suggests measuring the balance between manual and automated steps within processes. Additionally, tracking the time required to complete a process before and after the implementation can help evaluate the impact on process efficiency and effectiveness.

Finally, the last answer was about effective adoption ratio, usage of the application by users, time needed for end-to-end process.

This response highlights various metrics depending on the specific process implemented. It suggests measuring the effective adoption ratio to gauge the overall success of implementation. Additionally, usage of the application by users and the time taken for end-to-end processes can provide insights into the level of acceptance and efficiency achieved.

These answers provide a range of KPIs and metrics to measure the success of a ServiceNow implementation. Common themes include efficiency, stakeholder engagement, process improvement, and adoption. The metrics focus on factors such as time savings, resource optimization, issue generation, user activity, process automation, and overall adoption rates. The selection of specific metrics may vary depending on the organization, processes

involved, and desired outcomes of the implementation, but overall we can see how there is a strong focus on making sure that the newly digitalized process will be more efficient and effective, and that the key indicators of a well implemented solution is given by the users usage/acceptance and by the time saved in completing the end-to-end process.

Lastly we asked a question to the team Leader “Please provide any additional comments or insights regarding your experience as a ServiceNow consultant and the impact of ServiceNow implementations on organizations.” His response was very insightful so we will cite it by word “ServiceNow implementations require a cultural shift within a firm, fostering transparency, collaboration, and a focus on continuous development. By adopting the platform, many firms are encouraged to embrace change and foster a culture of innovation, leading to ongoing process optimization and organizational growth.” This answer alone describes the concept of digital transformation really well, with a strong focus on IS implementations given by the noticeable level of experience of the interviewee in this field.

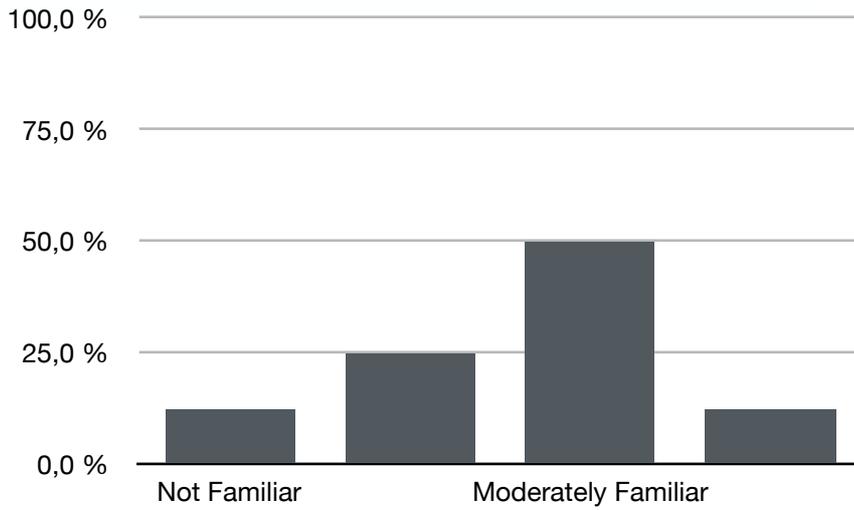
4.2 Case 2: Company Y

What is your designation/role in your company?

Role	%
Service & Transition Manager	12.5%
Service Desk Agent	36.5%
Seond-level support in the MDM	25%
IT support	25%

Table 4

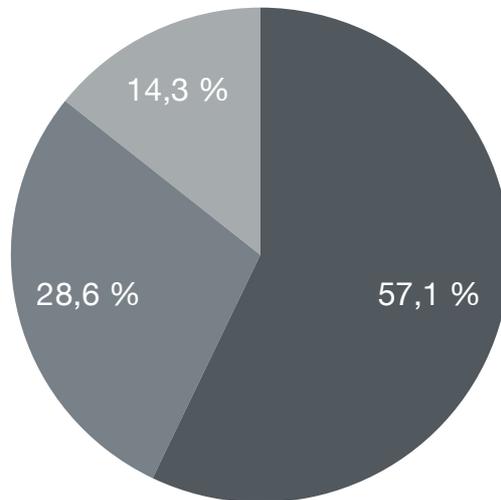
How familiar are you with the concept of digital transformation?



Graph 3

How would you rate the level of digitalization within your organization's business processes?

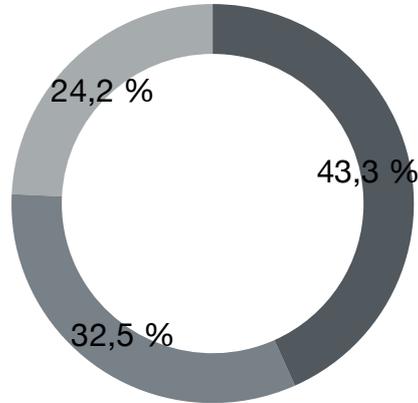
● Medium ● High ● Very High



Graph 4

How important do you consider business process optimization in your organization?

- Very Important
- Somewhat Important
- Moderately Important



Graph 5

In which areas of your organization is ServiceNow implemented for process optimization?

Area
Costumer Service Management
IT Service Management
IT Operations Management
Table 5

What are the key drivers for implementing digital transformation strategy in your organization?

Driver	%
Improved operational efficiency	75%
Enhanced customer experience	50%
Competitive advantage	37.5%
Cost Reduction	12.5%

Table 6

The highlight of the interview of the second company was the answers at the question “Please provide any additional comments or insights regarding Digital Transformation and the use of ServiceNow for business process optimization in your organization”, they are very similar so we will cite them one by one and then make some considerations.

“Service now is being used in my company as ticketing system for several customers who partly outsource their digital transformation process to our company as their IT support provider. As a service desk operator, I can say that it is currently the best ticketing system we use among those implemented between our customer companies.”

“At the moment the most efficient platform for managing workflows, pointing anomalies, incidents or problems towards the right department, in order to speed up the communication between requestor and help desk agent.”

“At the moment the most efficient platform for managing workflows, pointing anomalies, incidents or problems towards the right department, with a high possibility of customization in order to adapt to the needs of different kind of clients.”

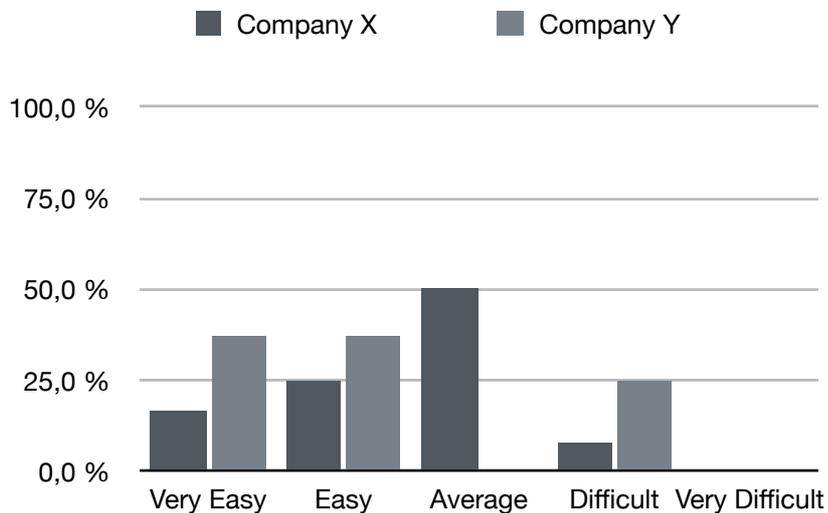
We can see how the respondents share a similar feeling towards the platform, emphasizing the rapidity and the communication that the system offers. We can tell by their answers that

those two are highlighted as the most important metrics, supporting the results that we gathered from the interviews of Company X.

4.3 Cross Company Analysis and Comments

We presented the questions of this section at both companies in order to have a comparison and to better check eventual discrepancies or similarities to then analyze them. The focus here is on parameters discussed before in chapter X on the TAM and the D&M Model.

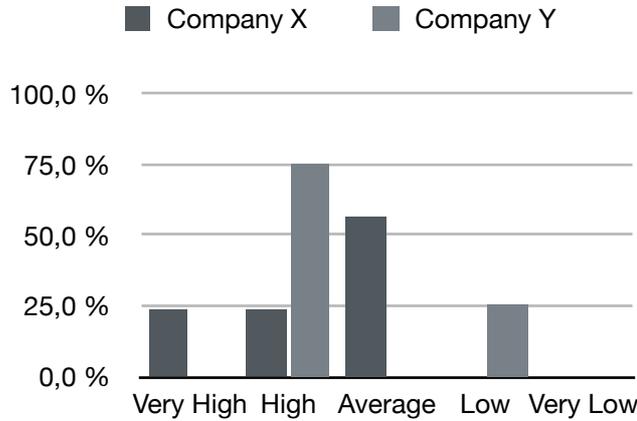
How would you rate ServiceNow ease to use?



Graph 6

We can see how the vast majority of the people thinks that the platform is fairly easy to use. The ease to use could be a huge deterrent to the adoption of new IS, as we have seen in the TAM model, leading to a stagnation of the level of digitalization an innovation of a company.

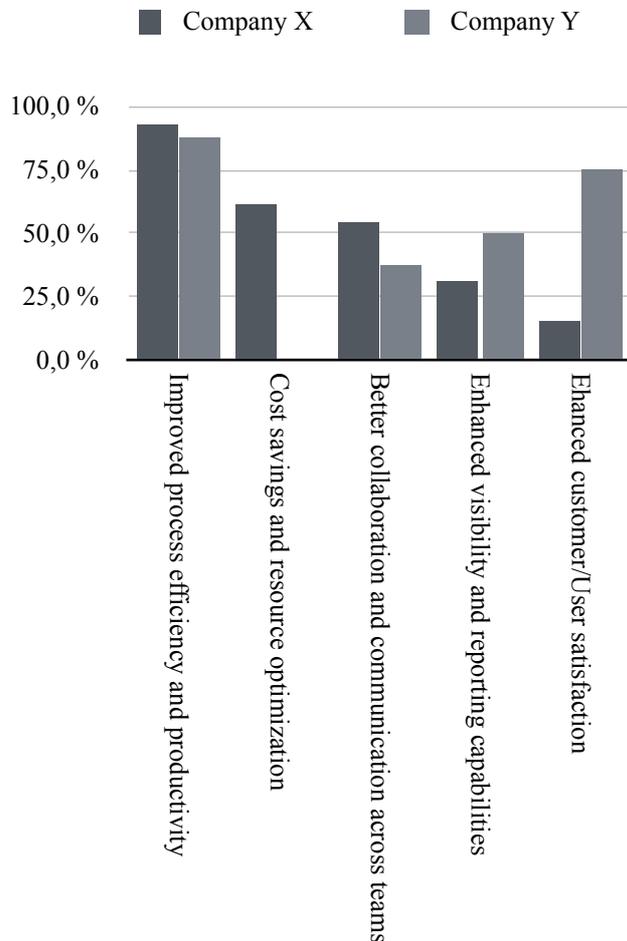
How would you rate ServiceNow technical quality? (reliability, response time)



Graph 7

Technical quality it's also a very important topic when it comes to using a new platform for digitalization and optimization of business processes. We can see how almost every interviewee thinks that the reliability of Service now is average or above average.

What are the key benefits that your organization have achieved through ServiceNow implementations?



Graph 8

This was an open question, we gathered similar responses into categories and we came up with these results. By far the more cited benefit was “improve process efficiency and prosperity”, a lot of features were mentioned regarding this topic: a lot of possibilities of integrations with other platforms along with creation and customization of workflows in a very user-friendly manner stand out the most.

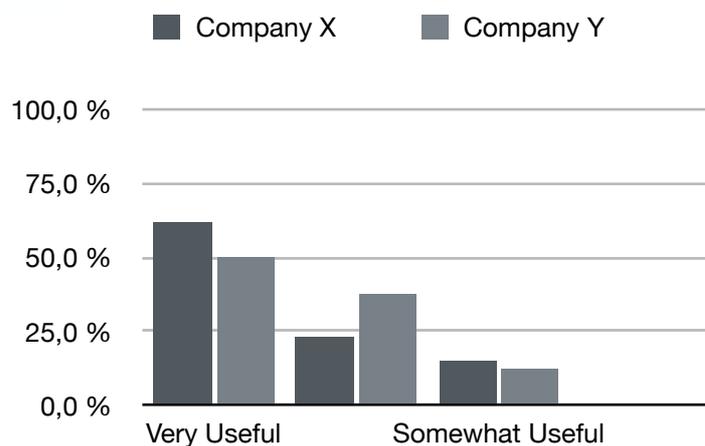
“Better collaboration and communication across teams” and “enhanced reporting capabilities” were also nominated by both companies representatives. The first thanks vastly to the automatization of tasks and the second for the ability of the platform to create reports and dashboard in a simple and intuitive way.

Lastly we have two categories that were mostly nominated just by one company, probably because of the different type of service that they offer.

Company X focused a lot on “cost saving and resource optimization” emphasizing the reduction of time and manual tasks needed after a ServiceNow implementation.

Company Y highlights “enhanced customer/user satisfaction”, focusing more on the experience of the actual employee that will use the platform everyday to work.

How would you define the effectiveness of ServiceNow in optimizing organization’s business processes?



Graph 9

Finally with the last question we wanted to gather a comprehensive feeling of the platform perceived effectiveness and we can see how the vast majority of the interviewee look at the platform as a useful tool for digital transformation and optimization of business processes.

5. Results and Discussion

5.1 Presentation of the Findings

Analyzing the results of questionnaires and interviews outlined in the previous chapter, we have formulated the following findings.

The most significant insight gained from our study is the considerable importance attributed to the initial phase of a digital transformation. Even before its implementation or commencement, convincing impacted users and internal stakeholders within the company that evolution and change can lead to better long-term outcomes, despite potential short-term adaptation and investment challenges, emerged as one of the major obstacles towards digitization processes, process optimization, or the adoption of new information systems. This consideration is closely related to the high emphasis our interviewees placed on communication, driven by various motivations and objectives. Effective communication aims to trigger a shift in both personal and organizational mindsets and establish the necessary trust to execute a digitalization process, which is often a significant and drastic change within a company, impacting operations, processes, and overall mindset.

Another important aspect arising from our analysis is the collection of Key Performance Indicators (KPIs). This aspect is particularly linked to the communication effort, as the selection, elaboration, and monitoring of relevant data play a pivotal role in determining the success of a technological transformation project, with a specific focus on time saved and the overall efficiency of the digitalized process. Additionally, showcasing data and figures that demonstrate the effectiveness of previous implementation in other case studies can assist in overcoming the resistance to change within organizations.

These findings shed light on the challenges and considerations that organizations encounter during their digital transformation journeys, providing guidance for companies seeking to embrace and optimize digital processes and information systems.

The most commonly mentioned benefit of implementing ServiceNow is the improvement in process efficiency and productivity. Respondents appreciated the platform's ability to integrate with other systems and the ease of creating and customizing workflows. Additionally, both companies highlighted the positive impact on collaboration and communication across teams, as well as the enhanced reporting capabilities provided by ServiceNow. Each company had unique perspectives on the benefits. Company X focused on cost-saving and resource optimization, emphasizing the reduction of time and manual tasks after implementing ServiceNow. On the other hand, Company Y emphasized the enhanced satisfaction of customers and users, particularly in relation to the employees' everyday work experience.

Regarding the technical quality and ease of use, most interviewees considered ServiceNow to be reliable and fairly easy to use. This perception is crucial for successful adoption and digitalization within organizations. Interviewees shared similar feelings about the platform, emphasizing its rapidity and effective communication capabilities. These aspects were considered essential metrics, supporting the interviews conducted with Company X. The insights derived from the interviews emphasize that ServiceNow implementations require a cultural shift within organizations, fostering transparency, collaboration, and a focus on continuous development and that adopting the platform may encourage firms to embrace change and a culture of innovation, leading to ongoing process optimization and organizational growth.

The findings suggest that ServiceNow brings significant benefits to organizations, including improved efficiency, collaboration, and reporting capabilities. It also positively impacts cost-saving, user satisfaction, and organizational culture. The platform's technical quality and user-friendly nature play crucial roles in its successful adoption and digital transformation within companies. The insights also underscore the concept of digital transformation and the platform's role in facilitating continuous development and innovation within organizations.

5.2 Discussion of the Results in Relation to the Research Questions and Objectives

This chapter aims to discuss and analyze the findings in relation to the research questions that guided our study. The following research questions were formulated to address the identified research problem and provide valuable insights into the stages of digital transformation and the acceptance of new information systems:

RQ1: What are the most relevant stages that organizations typically go through during a digital transformation journey?

RQ2: How do organizations perceive and approach the acceptance of new information systems during a digital transformation?

RQ3: What are the key factors influencing the acceptance of new information systems during a digital transformation journey?

RQ4: What lessons can be learned from case studies of companies that have implemented or work with ServiceNow in their digital transformation initiatives?

The research objectives were designed to align with the research questions and provide a clear direction for the study. These objectives guided our efforts to explore digital transformation stages, new information system acceptance, and the impact of ServiceNow implementations:

Objective 1: To analyze the most relevant stages that organizations commonly experience during a digital transformation journey.

Objective 2: To examine how organizations perceive and approach the acceptance of new information systems during digital transformation.

Objective 3: To identify the key factors influencing the acceptance of new information systems during a digital transformation journey.

Objective 4: To conduct in-depth case studies of two companies that have implemented or work with ServiceNow to gain insights into their digital transformation experiences.

Objective 5: To derive lessons and best practices from the case studies to inform organizations embarking on digital transformation journeys involving ServiceNow.

Stages of Digital Transformation (RQ1): The findings highlight the considerable importance attributed to the initial phase of a digital transformation journey. Even before implementation, the process of convincing impacted users and internal stakeholders of the long-term benefits of digital transformation emerged as a major challenge. This emphasizes the critical nature of laying the groundwork for transformational change and cultivating a receptive mindset among employees and stakeholders.

Acceptance of New Information Systems (RQ2 and RQ3): The emphasis placed by interviewees on effective communication during digital transformation is closely linked to the acceptance of new information systems. Establishing trust and facilitating a shift in both personal and organizational mindsets were identified as crucial factors in overcoming resistance to change. Additionally, the selection, elaboration, and monitoring of Key Performance Indicators (KPIs) play a pivotal role in determining the success of technological transformation projects, particularly in relation to time saved and overall process efficiency.

Insights from Case Studies (RQ4): The case studies of two companies, Company X and Company Y, provided unique perspectives on the benefits of ServiceNow implementation. While both companies acknowledged the improvement in process efficiency and productivity, they focused on different aspects based on their specific service offerings. Company X emphasized cost-saving and resource optimization, whereas Company Y highlighted enhanced customer and user satisfaction.

Deriving Lessons and Best Practices (Objective 5): The findings underscore the significance of effective communication strategies in fostering acceptance and trust during digital transformation initiatives. Moreover, the role of KPIs in demonstrating the effectiveness of new information systems and encouraging a culture of innovation within organizations is evident. The lessons learned from the case studies provide valuable guidance for organizations embarking on digital transformation journeys involving ServiceNow, emphasizing the importance of tailoring implementations to specific organizational contexts.

The discussion and analysis of the findings in relation to the research questions and objectives shed light on the stages of digital transformation and the acceptance of new information systems. The insights garnered from this study offer valuable guidance to organizations seeking to embrace and optimize digital processes and information systems, facilitating successful digital transformation journeys with the support of ServiceNow implementations.

5.3 Implications of the Results for Theory and Practice

This chapter explores the implications of the study's findings for both theory and practice in the field of digital transformation. The insights gained from addressing the research questions and objectives provide valuable contributions to the understanding and implementation of digital transformation initiatives. The implications are discussed below:

The findings highlight the considerable importance attributed to the initial phase of a digital transformation journey. This insight contributes to existing theories on digital transformation, emphasizing the significance of effectively laying the groundwork and fostering a receptive mindset within organizations before embarking on the transformation process. Previous theories may have focused primarily on the implementation phase, but the current study sheds light on the critical nature of early-stage preparation and communication.

The emphasis placed on effective communication in influencing new information system acceptance aligns with theories on organizational change management. The findings add depth to the understanding of the factors that impact acceptance during digital transformation. The significance of establishing trust and shifting mindsets as essential elements in overcoming resistance to change further enriches change management theories.

The recognition of KPIs as a pivotal factor in determining the success of digital transformation projects contributes to theories on performance measurement and evaluation. By highlighting the role of KPIs in showcasing the effectiveness and benefits of new

information systems, the study offers valuable insights into the monitoring and evaluation aspects of digital transformation initiatives.

The study's emphasis on effective communication strategies during the digital transformation journey has practical implications for organizations. Practitioners can use these insights to design and implement communication plans that focus on building trust, encouraging openness, and conveying the long-term benefits of digital transformation to all stakeholders. Such strategies are crucial in gaining support and buy-in from employees and internal stakeholders.

The findings stress the significance of early-stage preparation in digital transformation initiatives. Practitioners can use this knowledge to prioritize activities that involve building awareness, garnering support, and preparing the organization for the forthcoming changes. By investing time and effort in the initial phase, organizations can establish a solid foundation for a successful transformation journey.

The study highlights the importance of selecting relevant and meaningful KPIs for assessing the success of digital transformation projects. Practitioners can use this insight to identify the most critical performance indicators that align with their organizational goals. Utilizing KPIs effectively will enable organizations to measure the impact of digital transformation and make data-driven decisions for continuous improvement.

The insights gained from the case studies of Company X and Company Y provide practical lessons for organizations considering ServiceNow implementation. By understanding the unique benefits that ServiceNow offers and tailoring its implementation to specific organizational needs, companies can maximize the value derived from the platform. The implications of the study's findings for theory and practice in digital transformation highlight the importance of effective communication, early-stage preparation, and KPI-based evaluation. The insights provide a deeper understanding of the stages that organizations typically go through during digital transformation and the factors influencing new information system acceptance. By leveraging these implications, practitioners can enhance their digital transformation initiatives and better align them with organizational goals and objectives. The study contributes valuable knowledge to the field of digital

transformation and provides practical guidance for organizations seeking to succeed in their digital transformation journeys with the support of ServiceNow implementations.

5.4 Conclusions

In this research, our primary goal was to explore the stages of digital transformation, the acceptance of new information systems, and the impact of ServiceNow implementations in organizations. Through the analysis of questionnaires, interviews, and case studies, we have gained valuable insights into the challenges and considerations encountered during digital transformation journeys. Let us now summarize the key findings and draw conclusions based on our study:

Importance of the Initial Phase: One of the central themes that emerged from our research is the critical importance of the initial phase of a digital transformation journey. Convincing impacted users and internal stakeholders about the long-term benefits of digital transformation before implementation proved to be a major challenge. Therefore, we emphasize the significance of laying the groundwork and cultivating a receptive mindset within organizations during this early stage.

Communication and Trust: Effective communication played a pivotal role in influencing the acceptance of new information systems during digital transformation. Establishing trust and shifting mindsets were identified as crucial factors in overcoming resistance to change and fostering acceptance of the transformation process. The power of communication in driving successful digital transformation initiatives cannot be overstated.

Key Performance Indicators (KPIs): Our study revealed that the selection, elaboration, and monitoring of relevant Key Performance Indicators (KPIs) are essential in determining the success of digital transformation projects. KPIs that effectively demonstrate the benefits and effectiveness of new information systems can encourage a culture of innovation and continuous development within organizations, further enhancing the transformation journey.

Unique Benefits of ServiceNow: Through the case studies of Company X and Company Y, we gained insights into the diverse benefits of ServiceNow implementation. These benefits included improved process efficiency, enhanced collaboration, and advanced reporting capabilities. ServiceNow also had a positive impact on cost-saving, user satisfaction, and organizational culture. These findings highlight the adaptability and value that ServiceNow brings to different organizations' digital transformation efforts.

In conclusion, our research underscores the importance of addressing the challenges faced during digital transformation journeys. By focusing on effective communication, establishing trust, and utilizing relevant KPIs, organizations can overcome resistance to change and foster a culture of innovation. Moreover, our case studies demonstrated the unique benefits that ServiceNow offers, showcasing its potential to enhance efficiency, collaboration, and user satisfaction within organizations. By acknowledging the significance of the initial phase and utilizing communication strategies and KPIs effectively, organizations can pave the way for successful digital transformation initiatives. The insights gathered from this research provide valuable guidance for companies seeking to optimize their digital processes and information systems, facilitating their digital transformation journeys with the support of ServiceNow implementations.

5.5 Proposed New Stage Model for Digital Transformation and Information System Acceptance: A Communication-Centric Approach

In light of our research findings and extensive field experience, coupled with a recognized gap in existing literature on the subject, we introduce a novel model for digital transformation and the adoption of new information systems, centered entirely on effective communication. Our proposed model seeks to address the critical aspects of this multifaceted process, offering a comprehensive framework for organizations to navigate and optimize their digital transformation journey.

Stage 1: Mindset Shift - Cultivating an Innovation-Oriented Mindset

The inaugural stage of our model, "Mindset Shift," is dedicated to the essential task of persuading organizational decision-makers to transition from a short-term perspective to a forward-looking, innovation-driven mindset. Recognizing that digital transformation hinges on a corporate culture that embraces constant evolution, this phase serves as the foundation for subsequent stages.

Stage 2: Building Trust - The Cornerstone of Acceptance

The "Building Trust" phase assumes a pivotal role in our model, emphasizing the establishment of trust on two critical fronts. Firstly, it focuses on fostering confidence in the newly introduced information system, drawing insights from established models such as the Technology Acceptance Model (TAM) and DeLone and McLean's model. Secondly, it underscores the significance of trust-building with the individuals, teams, and implementers responsible for the successful integration of the solution. A holistic approach to trust is indispensable in ensuring acceptance.

Stage 3: Alignment - Ensuring Synchronization with Business Strategy

The "Alignment" stage is dedicated to harmonizing the adopted information systems with the overarching business strategies, processes, and workflows within the organization. Successful digital transformation necessitates not only the adoption of new systems but their seamless integration into existing operational frameworks. This stage places substantial emphasis on continual and transparent communication throughout the implementation process.

Stage 4: Workshops and User Acceptance Testing (UAT) - Nurturing Competence and Acceptance

Preceding the formal adoption of the new solution, the "Workshops and UAT" phase is instrumental. Here, effective communication is paramount, as employees and stakeholders require comprehensive training through workshops. Additionally, UAT ensures that users can validate the solution by engaging in end-to-end testing. Seamless communication is critical to guide users through these processes, providing them with the necessary competence and fostering acceptance.

Stage 5: Hypercare and Continuous Support - Sustaining Success

The final stage, "Hypercare and Continuous Support," marks the operational phase where the solution is actively employed. In this stage, ongoing and proactive support becomes imperative, recognizing that unforeseen issues or changes in business workflows may arise. Clear and swift communication channels are essential for prompt issue resolution and seamless adaptation to evolving circumstances.

Our proposed stage model for digital transformation and information system acceptance is rooted in the foundational principle of effective communication. It offers organizations a structured roadmap to navigate the complexities of digital transformation. This model responds to the critical need for a comprehensive framework to guide organizations through digital transformation, grounded in the power of communication.

5.6 Recommendations for Future Research

As digital transformation continues to shape the business landscape, further research and continuous learning will remain crucial in staying at the forefront of best practices and innovation in this dynamic field.

Based on the findings of this study, several recommendations are proposed for future research in the field of digital transformation:

Long-term Impact Assessment: Future research could focus on assessing the long-term impact of digital transformation initiatives on organizations. Examining how these initiatives influence organizational performance, productivity, and competitive advantage over an extended period would provide valuable insights.

Employee Engagement and Buy-in: Further investigation into strategies to enhance employee engagement and buy-in during digital transformation is warranted. Understanding how organizations can effectively involve employees in the transformation process and address their concerns will be beneficial.

Comparative Studies: Conducting comparative studies of organizations that have successfully implemented digital transformation initiatives and those that faced challenges or failures could provide valuable lessons and best practices. Analyzing the factors that differentiate successful transformations from unsuccessful ones can guide organizations in their endeavors.

Cultural Transformation: Future research can delve deeper into the cultural aspects of digital transformation. Understanding the cultural shifts required within organizations to embrace digital transformation fully would aid in facilitating successful implementations.

Industry-specific Studies: Focusing on specific industries and their unique challenges during digital transformation could offer industry-specific insights and recommendations. Different sectors may encounter distinct barriers and opportunities during their digital transformation journeys.

User Experience and Usability: Investigating the user experience and usability of digital systems, including platforms like ServiceNow, is crucial for successful adoption. Understanding how these factors influence user acceptance and overall digital transformation outcomes is essential.

Impact on Customers and Partners: Research that explores the impact of digital transformation on customers and partners is valuable. Understanding how digitalization influences external stakeholders' experiences and relationships with organizations can be a significant area of study.

Ethical Considerations: As digital transformation advances, ethical considerations related to data privacy, security, and algorithmic decision-making become critical. Future research should address the ethical implications of digital transformation initiatives.

Integration of Emerging Technologies: Studying the integration of emerging technologies, such as artificial intelligence, blockchain, and Internet of Things (IoT), in digital transformation initiatives would provide insights into their potential benefits and challenges.

Cross-Cultural Studies: Exploring digital transformation across different cultural contexts and regions could reveal cultural nuances influencing the acceptance and success of transformation efforts.

By pursuing these research recommendations, scholars and practitioners can deepen their understanding of digital transformation and pave the way for more effective and successful initiatives in the future. Digital transformation is a dynamic and evolving field, and continued research is essential to stay at the forefront of knowledge and best practices.

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Appendices

Survey Questionnaire: Company Y

Organization

Designation/Role

How familiar are you with the concept of digital transformation?

How would you rate the level of digitalization within your organization's business processes?

What are the key drivers for implementing digital transformation strategy in your organization?

How important do you consider business process optimization in your organization?

How would you rate ServiceNow ease to use? (1 very easy, 5 very difficult)

How would you rate ServiceNow technical quality (reliability, response time)? (1 very high, 5 very low)

How would you define the effectiveness of ServiceNow in optimizing your organization's business processes?

In which areas of your organization is ServiceNow implemented for process optimization?

What are the key benefits that your organization have achieved through ServiceNow implementations?

Please provide any additional comments or insights regarding Digital Transformation and the use of ServiceNow for business process optimization in your organization

Survey Questionnaire: Company X

Years of experience as a ServiceNow consultant

How many ServiceNow implementations have you been involved in?

What industries have you worked with during ServiceNow implementations?

How would you rate your proficiency in implementing ServiceNow solutions?

What roles have you performed during ServiceNow implementations?

How do you perceive ServiceNow as a tool for Digital Transformation?

How would you rate ServiceNow ease to use? (1 very easy, 5 very difficult)

How would you rate ServiceNow technical quality (reliability, response time)? (1 very high, 5 very low)

In your experience, what are the common challenges faced during ServiceNow implementations?

What are the key benefits that organizations have achieved through ServiceNow implementations?

Interviews Samples: Both Companies

In your experience, what are the common challenges faced during ServiceNow implementations?

How do you typically address or overcome these challenges during ServiceNow implementations? Please provide some strategies or approaches you have found effective

How do you measure the success of a ServiceNow implementation? Please measure any key performance indicators (KPIs) or metrics you typically use.

Please provide any additional comments or insights regarding your experience as a ServiceNow consultant and the impact of ServiceNow implementations on organizations.