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MASTER THESIS

Veiksmingos klientų įtraukimo strategijos, skirtos judriam projektų valdymui	**Effective Customer Engagement Strategies for Agile Project Management**

Academic supervisor: Romualda Stragienė

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SUMMARY

57 Pages, 7 Figures, 173 References

This thesis explores customer engagement within Agile Project Management, aiming to explore, analyse, and provide insights into effective strategies for fostering collaboration. The research spans five interconnected themes, guided by the Agile Manifesto and Social Exchange Theory, and integrates findings from interviews and existing literature. In the contemporary landscape of project management, the research holds immense relevance. With Agile methodologies taking centre stage, the criticality of customer engagement becomes evident. This aligns with the principles articulated in the Agile Manifesto, emphasising the significance of individuals and interactions, and the evolving expectations of stakeholders in today's dynamic projects.

This thesis aims to contribute valuable insights to practitioners, organisations, and researchers involved in agile project management. By exploring five distinct themes, the research seeks to enhance the understanding of effective customer engagement practices and their adaptability to diverse project contexts.

The research synthesises findings from interviews and existing literature, showcasing the integration of customer engagement strategies with Agile Manifesto principles and Social Exchange Theory. Themes highlight the dynamic nature of agile customer engagement, the importance of both quantitative and qualitative metrics, and strategies tailored to diverse contexts. Continuous improvement, leadership commitment, and technological leverage emerge as critical factors.

The length of this thesis which spans five chapters is commensurate with the depth of the research, providing a thorough investigation into effective customer engagement within agile project management.

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SANTRAUKA

57 puslapiai, 7 paveikslai, 173 literatūros šaltiniai

Šiame darbe yra nagrinėjamas klientų įtraukimas į Agile projektų valdymą, siekiant ištirti, išanalizuoti ir pateikti įžvalgas apie veiksmingas bendradarbiavimo skatinimo strategijas. Tyrimas apima penkias tarpusavyje susijusias temas, remiantis Agile Manifesto ir socialinių mainų teorija, integruoja interviu bei nagrinėtos literatūros išvadas. Šiuolaikiniame projektų valdymo kontekste šis tyrimas yra labai svarbus. Agile metodologija užima pagrindinę vietą, todėl klientų įtraukimo svarba tampa akivaizdi. Tai dera su Agile manifeste išdėstytais principais, pabrėžiančiais asmenų ir sąveikos svarbą bei besikeičiančius suinteresuotųjų šalių lūkesčius dinamiškuose šiandienos projektuose.

Šiuo baigiamuoju darbu siekiama suteikti vertingų įžvalgų praktikams, organizacijoms ir tyrėjams, dalyvaujantiems Agile projektų valdyme. Tiriant penkias skirtingas temas, tyrimas siekia pagerinti supratimą apie veiksmingą klientų įtraukimo praktiką ir jų pritaikymą įvairiems projektų aspektams.

Tyrime apibendrinami interviu ir esamos literatūros išvados, demonstruojant klientų įtraukimo strategijų integraciją su Agile Manifesto principais ir socialinių mainų teorija. Temos pabrėžia dinamišką judraus klientų įtraukimo pobūdį, kiekybinių ir kokybinių metrikų svarbą bei įvairiems kontekstams pritaikytas strategijas. Nuolatinis tobulėjimas, vadovavimo įsipareigojimas ir technologinis svertas yra svarbūs veiksniai.

Šios baigiamojo darbo apimtis, apimanti penkis skyrius, yra proporcinga tyrimo gyliui, pateikiant išsamų veiksmingo klientų įtraukimo į judrus projektų valdymą tyrimą.

INTRODUCTION

In today's corporate environment, which is defined by ongoing change and rapid growth, effective project management has risen to a level of utmost importance for organizations and has become a critical component for achieving success and competitiveness in an environment where challenges and opportunities shift regularly. The broad use of agile methodologies has been a major advancement in the field of project management (Chathuranga et al., 2023). Agile methodologies differ from traditional project management approaches in that they guarantee more flexibility and adaptation in the face of shifting project requirements (Narasimman, 2023). Agile methodologies are considered to be more productive than traditional project management frameworks because they help teams stay focused and transparent, enabling collaboration, communication, and accountability (Seeton, 2022). This approach recognizes that change is an inevitable part of project work and aims to view it as a resource rather than as an obstacle (AltexSoft, 2016). As a result, agile methodologies have achieved significant popularity in several sectors, positioning themselves as a catalyst for better project execution (Gibler, 2023). Customer interaction is a key aspect which has emerged within the transformative wave of project management (Kapoor, 2022). The ability to communicate with customers effectively throughout the project lifecycle has emerged as a vital aspect that can have a significant impact on project outcomes (Siddique and Hussein, 2019). In this context, customer engagement goes beyond mere interactions; it involves consumers' active participation and collaboration in the project process (Lemon and Verhoef, 2016). In the context of agile project management, the influence of customer engagement extends beyond the immediate project deliverables; it is related to an organization's overall performance and sustainability (Kapoor, 2022). Customers who are engaged not only contribute valuable input and feedback but also create a sense of ownership and commitment to the project's goals (Nwaokorie, 2020).

This study therefore investigates the fundamental relationship between agile project management and customer engagement strategies. Its major goal is to provide useful insights into the strategies that drive project success. By examining the dynamics of how agile methodologies and customer engagement interact, this study seeks to provide a comprehensive understanding of how businesses may navigate the complex landscape of contemporary project management. This study aims to shed light on the techniques and strategies that enable effective customer engagement within agile project management frameworks, resulting in improved project outcomes and, by extension, the overall success of an organisation. By examining real-world experiences

and best practices, this study will provide recommendations for organizations looking to succeed in the continually evolving business landscape.

Effective customer engagement strategies within the context of agile project management present an opportunity for worthwhile investigation. Despite the increasing popularity of agile methodologies in project management, there is still a clear need to investigate how businesses may best involve customers at every stage of the project lifecycle. The academic literature on agile methodologies and customer engagement is expanding, however, it's important to note that there is still limited understanding of the most effective ways organisations can engage customers within agile project management. In other words, studies like Trivedi (2021) and Sharma, Sarkar, and Gupta (2012) have mostly focused their attention on these two areas as separate entities and others like Siddique and Hussein (2019) have established the importance of customer engagement in agile project management, overlooking the need for a clear understanding of the most effective strategies for engaging customers within agile project management. By focusing on identifying and evaluating these strategies, this study seeks to provide organizations with valuable insights. The emphasis of the study is on identifying practical insights that can be used to improve customer engagement strategies in the context of agile project management.

The central question that this study seeks to answer is: What are the most effective customer engagement strategies within the agile project management framework, and how can organizations leverage them to enhance project outcomes? This question is essential as it forms the basis of the research, directing its investigation into the dynamics of customer engagement within the context of agile project management. To answer this fundamental question, this study focuses on the practical aspects of agile project management to understand not only what agile project management is, but also the strategies that work best in facilitating customer engagement within the agile project management context. The research lens of this study is focused on studying the techniques and strategies organizations have implemented in this specific context, thereby discovering the most effective strategies that have delivered tangible results in terms of customer engagement using a qualitative exploration.

The object of this study is customer engagement strategies. This includes both the strategies themselves, and the implementation of these strategies. The primary purpose of this thesis is to identify and assess the most effective strategies and techniques for organizations to effectively interact with their customers throughout the project lifecycle while employing agile methodology. These strategies will be thoroughly investigated, evaluated, and presented as actionable insights for organizations seeking to improve their customer engagement processes. The object of this

study also includes the organizations responsible for implementing these strategies such as project teams, and organizations as a whole. It encompasses how these entities interact and collaborate to implement customer engagement strategies within agile project management. Understanding their roles and actions is critical to understanding how effective customer engagement strategies are implemented.

This study aims to provide a comprehensive understanding of effective customer engagement strategies in the context of agile project management. This aim aligns with the study's topic and is grounded in the practical needs of organizations seeking to succeed in agile project management contexts.

This aim will be achieved through the following objectives:

1. Identify a comprehensive range of customer engagement strategies currently employed within the agile project management framework.
2. Evaluate the effectiveness of these identified strategies based on real-world applications and outcomes.
3. Categorize and prioritize the most effective customer engagement strategies, providing clarity on their respective strengths and areas of application.
4. Explain how these prioritized methods may be implemented practically, providing insights into how individuals, teams, and organizations can adapt and use them effectively.
5. Provide practical recommendations based on the findings to help organizations optimize customer engagement strategies within their agile project management processes.

The structure of the thesis allows for a logical and organized presentation of the research from the theoretical foundations through the empirical research process to the study's conclusions and insights. This first chapter serves as the foundation for the entire thesis. It provides context for the investigation by introducing the research problem and its relevance. The study's aim and objectives are stated in this chapter. Furthermore, it identifies the research object, detailing the scope of entities, such as individuals, teams, or organizations, and their relationships, that will be investigated in the thesis. The second chapter looks into the study's theoretical basis. It provides a comprehensive analysis of existing literature on the thesis subject, including concepts and models that provide clarity regarding the research problem. This chapter provides clarifications for the categories mentioned in the analytical section of the thesis. By doing so, it establishes a robust theoretical framework upon which the subsequent research is built.

The third chapter presents a detailed description of the empirical research approach. This includes the formulation and presentation of the research module, which outlines the research approach used. In the fourth chapter, the data collected during the empirical research are meticulously presented and analysed. The research question is addressed in this chapter, as are the findings of the research, which are supported by empirical evidence and data analysis and provide insights into the identified problem. The concluding chapter summarizes the research and analyses the broader implications of the results, providing a brief and informative account of the thesis.

A qualitative research methodology was chosen for this study. Qualitative research is particularly well-suited for this study because of its ability to explore complex human experiences, opinions, and practices. Semi-structured interviews were employed as the primary research technique for this study, allowing for the examination of various viewpoints and experiences related to agile project management and customer engagement. Customer engagement in agile project management is a multifaceted concept that is influenced by several factors such as company culture, communication dynamics, and individual perspectives (Siddique and Hussein, 2019). A qualitative approach enabled the researcher to investigate these complexities to understand not only what techniques are employed, but also why they are effective and how they are implemented in real-world scenarios.

The thesis draws upon a diverse body of literature that underpins its research on effective customer engagement strategies in Agile Project Management. Notable literature includes "Agile Project Management in Banking" by Yuonan and Mamedov (2020), which emphasizes the active role of customers in Agile projects and the influence of regulatory frameworks on customer-centric practices; Salameh's (2014) comparative analysis, "What, when, why, and how? A comparison between agile project management and traditional project management methods," provides insights into customer engagement within Agile Project Management, highlighting its customer-centric approach.; Siddique and Hussein's (2019) study explores customer involvement dynamics in Agile software projects, focusing on enablers and barriers to effective customer engagement; Tessem's (2017) research on customer engagement within Agile system development projects emphasizes the role of communication and customer awareness in project success; Bin-Hezam and Alyahya (2016) address the complexities of managing customer involvement in globally distributed Agile software projects, proposing a computer-based process support system; Vanhala and Kasurinen (2019) examine customer engagement in Agile software development projects, emphasizing the demands placed on customers and the role of communication tools; Hoda, Noble,

and Marshall's (2011) study delves into the impact of inadequate customer collaboration on self-organizing Agile teams, highlighting the challenges and strategies used to maintain Agile practices.

The primary practical significance of this thesis is its ability to provide organizations with clear, actionable recommendations for improving customer engagement within agile project management, ensuring higher project success rates, faster delivery, and increased customer satisfaction. This research may also assist project managers, agile practitioners, and organizational leaders in making informed decisions on the selection and implementation of customer engagement strategies in agile project contexts. This can make it easier to develop customer-centric strategies and align with customer preferences, which can support long-term success and boost competitive advantage. The primary focus of this research being on identifying the most effective customer engagement strategies within agile project management implies that the exploration of broader project management methodologies or alternative customer engagement approaches may be outside the scope of this thesis. The findings and recommendations drawn from this research may be influenced by the specific context, industries, and organizations studied. Therefore, they may not apply to all agile projects or industries. The study relies on a select group of participants, including project managers, agile practitioners, and customers. While this sample is chosen deliberately for their direct experience, the findings may not capture the full diversity of perspectives present in the wider agile project management community.

LIST OF FIGURES

ABBREVIATIONS

1. **APM:** Agile Project Management
2. **SC:** Stakeholder Collaboration
3. **CCS:** Client Collaboration in Sprints
4. **IPCF:** Iterative Prototyping for Client Feedback
5. **AM:** Agile Manifesto
6. **SET:** Social Exchange Theory
7. **OS:** Organisational Strategies

1. LITERATURE REVIEW

The second part of this thesis explores relevant literature on customer engagement in the context of agile project management. This chapter is a significant milestone in identifying the most effective ways to build solid relationships with customers within agile project management contexts. This chapter begins by introducing the concept of customer engagement and establishing a solid understanding of agile project management. It then explores the intersection of these two dynamic fields which is characterised by a significant shift in project management conventions, as customers evolve from passive stakeholders to active participants, impacting project trajectories and outcomes. This chapter describes the theoretical underpinnings and empirical insights that inform the study. By analysing existing research and theories, it establishes a foundation for the subsequent chapters to identify effective customer engagement strategies, suited for agile project management.

1.1 Customer Engagement

Customer engagement is the emotional connection that a customer develops with a brand as a result of their satisfaction, loyalty, and enthusiasm (Bansal and Chaudhary, 2016). Organizations that effectively engage customers to the point that they are motivated to modify their actions leverage opportunities for emotional connections through ongoing and recurrently satisfying interactions (Bansal and Chaudhary, 2016). According to Vivek, Beatty, and Morgan (2012), practitioners define Customer Engagement from the perspective of the organization as activities that facilitate ongoing relationships that strengthen a customer's emotional, psychological, or physical investment in a brand, whereas academics in information systems define Customer Engagement as the degree of customer involvement in a collaborative knowledge exchange process with both representatives of the organization and other customers. Customer engagement, at its core, is a relationship that develops between businesses and customers that is dynamic and ever-evolving (Vivek, Beatty, and Morgan, 2012). In contrast to the transactional nature of simple commercial exchanges, customer engagement reflects the complex and enduring connections that go beyond the boundaries of routine transactions (Jackson, 2020). According to Harrin and Peplow (2017), project customers are defined as stakeholders who have a strong stake in the project's success such as the project sponsor, any other executive contributing resources for the project, as well as individuals who will use the final product. Regular engagement with customers would enable project managers to learn more about consumers' experiences with the product, understand

their challenges, and enhance their capacity to provide solutions and responses based on customer expectations (Jackson, 2020).

Customer engagement is contingent upon active participation, a strong emotional connection, and a shared quest for value creation (Chapman & Dilmperi, 2022). The active participation of both parties—the organization and the customer—is one of the defining features of customer engagement (Vivek, Beatty, and Morgan, 2012). It is not a passive consumption of goods or services, but rather active engagement in their design, refining, and even co-creation (Ng, Sweeney, and Plewa, 2020). Customers are no longer just end-users; they have evolved into active participants in the creation process, shaping the very products or services they use (Breschi et al., 2017). Effective customer engagement extends beyond the initial transaction and the exchange of products and services to create a sense of belonging and loyalty (Barney and Biscobing, 2023). This emotional bond is fostered through personalized experiences, empathetic interactions, and a deep understanding of customer needs and aspirations to foster customer loyalty, attract new customers, and help organizations better anticipate customer expectations and needs (Barney and Biscobing, 2023). Customer engagement is a collaborative effort in which both businesses and their customers benefit (Venkatesan, Peterson, and Guissoni, 2018). Customers receive tailored solutions that satisfy their requirements, while businesses gain insights, feedback, and loyalty (Danao, 2023). This symbiotic relationship fosters long-term relationships based on trust, respect, and shared goals (Venkatesan, Peterson, and Guissoni, 2018). Customer engagement requires communication channels, feedback systems, and collaboration platforms (Sicilia and Palazon, 2022). Each touchpoint provides an opportunity for organizations to listen, understand, respond, and adapt in accordance with customer expectations as interacting with customers not only shows their opinions are valued, but also provides valuable insight into their needs, preferences, and behaviours (Lasry, 2023). This commitment to nurturing long-term relationships is anchored in foundational principles of trust (Cioban, 2021). Customers are expected to pay for services they have not yet gotten or experienced, therefore trust is essential in interactive exchanges between stakeholders (Agyei et al., 2020). When organizations openly share their procedures, guidelines, and objectives with their customers, it fosters a sense of trust in which customers believe they can rely on the organization (Cioban, 2021). This trust is vital, especially in contemporary society, when customers have access to an abundance of information and alternatives.

1.2 Strategies for Customer Engagement in Project Management

In recent times, the practise of project management witnessed a paradigm shift, transitioning from a mostly process-driven approach to one that lays a strong emphasis on

customer engagement (Armenia et al., 2019). Customer relationships, collaboration, and transparent communication are becoming critical project success factors (Shamim, 2022). Organisations have developed and executed a variety of techniques that promote and optimise consumer engagement in the context of project management to effectively navigate this dynamic landscape (Jackson, 2020). When carefully implemented, these strategies play a critical role in establishing trust, improving communication, and providing value to customers throughout the project lifecycle (Jackson, 2020). The foundation of effective customer engagement is open and transparent communication (Galic, 2021). Project managers must understand customers' expectations by creating personalised channels of communication that encourage customers to be more open in making suggestions and addressing unfulfilled requirements (Jackson, 2020). From the start of a project, project managers and teams should establish open lines of communication with clients (Joubert, 2020). This technique relies heavily on regular meetings, status updates, and feedback sessions to keep customers engaged and informed throughout the project's lifecycle (Watt et al., 2014). This collaborative environment fosters a sense of ownership and shared responsibility, thereby strengthening the relationship between the project team and the customer (Watt et al., 2014). A client-centric design approach is one of the primary methods in consumer interaction (Bokor, 2016).

Customer-centric design is an effective strategy that can transform businesses by putting the customer at the centre of the process (Artkai, 2023). It goes beyond traditional procedures and focuses on developing products and services that address customers' requirements and preferences (Artkai, 2023). Customer Centric Project Management, according to Bokor (2016), is the ongoing re-assessment, development, and incorporation of organisational strategy, expected results, customers' essential requirements and expectations, operational procedures, and project development approach into the task description and deliverables of an enabling technology project. This method not only boosts customer engagement but also significantly increases the possibility of producing results that truly address customer needs (Lemon and Verhoef, 2016). The creation of feedback loops is an essential practise for maintaining continuous customer engagement (Micheli, 2023). Soliciting feedback at various stages of the project allows customers to express their concerns, opinions, and suggestions (Watt et al., 2014). This iterative process encourages continuous improvement and keeps customers actively involved in the project's development (Watt et al., 2014). Their contributions become key drivers for making informed decisions and enhancing the project's relevance and applicability (Micheli, 2023). Furthermore, agile practices, such as Scrum and Kanban, inherently promote customer engagement (Hoffswell, 2023). They value iterative development, consistent feedback from customers, and adaptability to changing customer

needs (Dikert et al., 2016). Because agile concepts are strongly aligned with customer-centric methods, agile methodologies are a strategic choice for organisations seeking effective customer engagement (Elgendy, 2023).

1.3 Agile Project Management

Agility, according to the English Oxford dictionary, simply implies the ability to move fast and effortlessly. Applying this definition to project management depicts or reveals an abrupt shift from traditional project management methodologies such as the waterfall, in which there are several steps or processes to go through individually until the last process is completed or executed before the project ends (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). These procedures are designed in such a way that one must be completed before the next can begin, which in most cases delays projects and interferes with the smooth flow of the project (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). Project management, like other professions, is continually evolving as new methodologies emerge, and newer, more effective approaches are developed (Anantatmula, 2020). Agile was founded in 2001 by a group of software development experts called the Agile Alliance, and it is one of the fastest-growing management strategies since traditional project management was not suited in the age of contemporary highly competitive business environments and rapid change (Bunsiri and Kumprom, 2016).

Agile project management is often referenced as an innovative contemporary technique, and many experts claim that it is becoming the project management of the twenty-first century (Stare, 2013). The approach was established in the field of software development and has resulted in several innovations and benefits for both the project team and the project customer (Stare, 2013). Agile innovation methodologies have transformed information technology over the last 25 to 30 years, significantly raising software development success rates, improving quality and speed to market, and enhancing IT team motivation and productivity (Rigby, Sutherland, and Takeuchi, 2016). Agile exists in several types, each with a lot of similarities but emphasising slightly different aspects (Rigby, Sutherland, and Takeuchi, 2016). They include scrum, which promotes creative and flexible collaboration in addressing complex issues; lean development, which emphasizes continuous waste elimination; and kanban, which focuses on minimizing lead times and the quantity of work in progress (Rigby, Sutherland, and Takeuchi, 2016). Others include Extreme Programming (XP), Feature-Driven Development (FDD), Dynamic Systems Development Method (DSDM), Crystal family of methodologies, etc. (Radhakrishnan, 2023).

Agile project management, according to Lalsing, Kishnah, and Pudaruth (2012), is a conceptual software engineering framework in which software is developed in a relatively short

period and includes multiple iterations that culminate in reliable product delivery. According to the Agile Manifesto, Agile is based on a set of values that focus on customer value, iterative and incremental implementation, active collaboration, small integrated teams, self-organization, and continuous improvements (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). Although there are many different strategies for using agile methods currently, several fundamental concepts that underpin all of the different agile approaches enable them to exceed the performance of traditional project management methodologies (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). According to the designers, the Agile Manifesto is a declaration communicating four (4) major values and twelve (12) principles that software developers must adhere to when building software for project management (Kirvan and Pratt, 2023).

1.3.1 Agile Software Development Values

The agile manifesto emphasizes that individuals and interactions should be more important to agile software developers than processes and tools; that functional software has the advantage of comprehensive documentation; that customer collaboration is more important than contract negotiation; and that responding to change is better than following a plan (Stare, 2013). The authors of the agile manifesto refer to them as Agile Software Development Values (Agile Alliance, n.d.). In other words, as shown in Figure 1, the authors emphasize that, while items on the right have value, those on the left should be prioritized (Agile Alliance, n.d.).

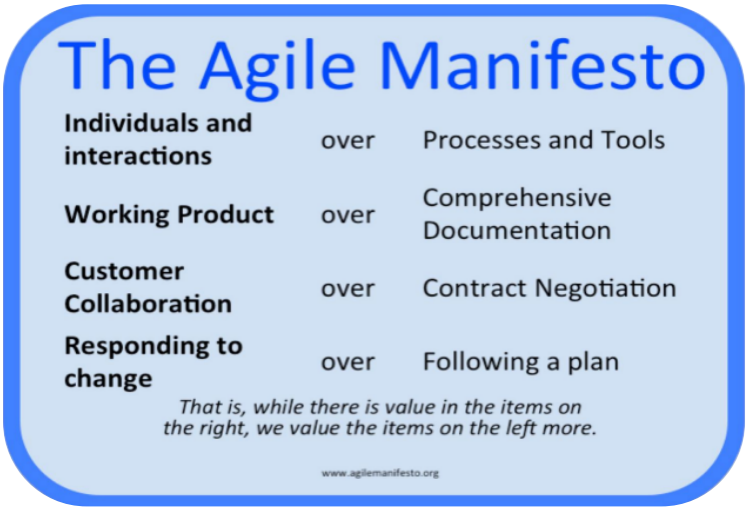

Figure 1. Four values of Agile Software Development (Lichtenberger, 2014)

Individuals and interactions over procedures and tools: The focus of agile is on leveraging the abilities of individuals into a powerful team, resulting in positive interactions for rapid smooth

project delivery. This moves the emphasis away from rigorous adherence to processes and tools, as is the case with traditional methods (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). If people and the way they approach work are considered as the means to manage product development and everything connected with it, people and the way they approach work must adhere to the procedures and tools, which makes it difficult to make room for innovation, new specifications, and new perspectives (Layton, 2016a). Agile methodologies, on the other hand, prioritize people above processes (Vincent, Williams, and Morgan, 2013). This emphasis on individuals and teams focuses on people and their energy, creativity, and capacity to solve problems, resulting in intentionally simplified processes and tools that directly support product development (Layton, 2016a). An agile environment is human-centric and interactive, and it can easily adapt to novel ideas and innovations, resulting in a productivity boost (Aghina et al., 2018).

Working product over comprehensive documentation: Working software over thorough documentation suggests that delivering software that performs as it should come first in the priorities before creating documentation, and if there has to be a choice between the two due to a time crunch for some reason, time should be spent developing software rather than writing documentation (Fronc, 2018). This is about providing value to the customer, as implied in the manifesto's first principle, which states that working software should be delivered early, continuously, and regularly because it is acknowledged that comprehensive documentation, such as detailed requirements, does not, in and of itself, provide value (Heigl, 2020). It is important to note, however, that this does not translate to completely overlooking documentation. According to Fronc (2018), there is a need to deliberate on which documentation is needed, for whom, and why, and if no convincing reasons are found, the time should rather be spent on something else.

Customer collaboration over contract negotiation: When it comes to agile, partnering with the customer is more important than simply insisting on the conditions of the contract, where deliverables must adhere strictly to the conditions of the contract and there is little room for flexibility (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). The traditional emphasis on bargaining dissuades customers from providing potentially useful feedback and may even lead to a hostile relationship between clients and project teams (Behrens et al., 2021), while when an agile method is used, there is a relationship between the customer and the project team in which research, inquiry, learning, and adjusting are routine, acceptable, and continuous throughout the project (Layton, 2016b). Customer review is embedded into the workflow of an agile project, and during each iteration phase, the product owner and the customer collaborate to manage and verify the scope (Marnada et al., 2022). The most important features may be developed initially,

providing the opportunity to ensure maximum value early on, when the customer's money has been invested sparingly (Layton, 2016b).

Responding to change over following a plan: Due to the focus of agile methodologies on customer participation, adapting to change, and continuous improvement, it has grown in popularity, especially in IT projects (Lapnet, 2023). There is a lot of flexibility with agile, where a plan is not highly important and may be modified if there is a need for modifications (Koi-Akrofi. J, Matey, and Koi-Akrofi. G, 2019). Using agile management principles, project teams may create useful, appealing products that people want to use by responding swiftly to customers, product users, and the market at large, unlike traditional project management methodologies that are characterised by strict change management protocols and budget frameworks that do not support new product requirements making change management difficult (Layton, 2016b). Agile methodologies have been designed to provide enhanced flexibility and responsiveness to shifting conditions as complexity makes a project more difficult to comprehend and maintain under control (Nguyen and Mohamed, 2020). Collaboration with customers and embracing change rather than sticking to a plan are crucial for effective Agile project completion (Lapnet, 2023).

1.3.2 Agile Principles of Project Management

To assist team developers in making the transition to agile, the Agile alliance introduced twelve guiding agile principles to the Manifesto's four fundamental values (Bunsiri and Kumprom, 2016). Project teams can make use of the 12 Agile Principles as a set of general guidelines for implementing agile projects (Layton, 2016c).

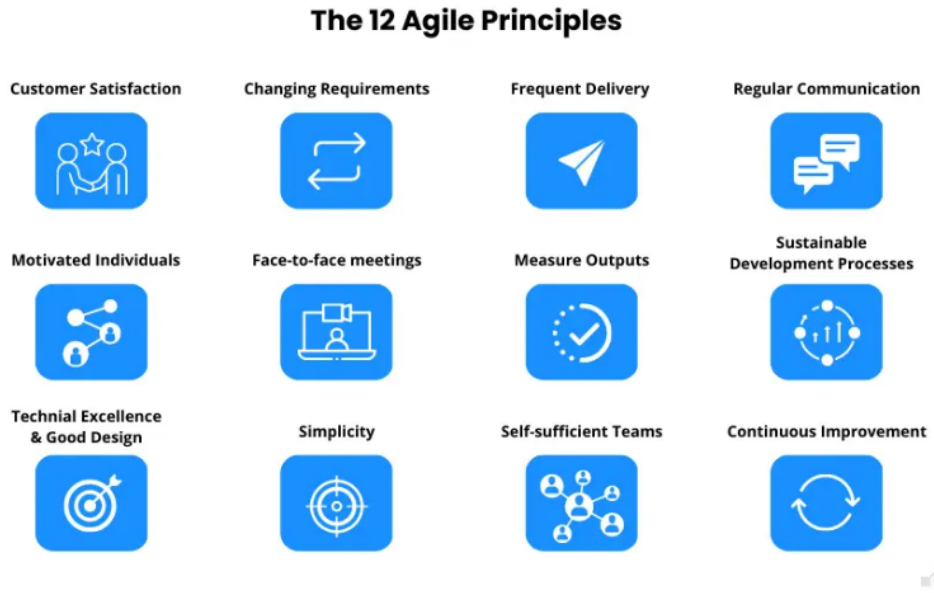

Figure 2. The 12 agile principles (Medeiros. 2021)

Our highest priority is to satisfy the customer through early and continuous delivery of valuable software: To ensure that the customer is satisfied without the project team incurring extra costs, a good contractual relationship between the customer and the project team is required (Behrens et al., 2021). The second part of the principle, however, emphasizes that some of the product or service may be used after the first iteration and that each further iteration adds improved capabilities and, thus, new value (Stare, 2013). Customers are usually satisfied with the quality and timely delivery of deliverables; however, prompt delivery does not imply a reduction in quality (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019).

Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage: For all project types, it generally holds that each modification can be allowed as long as it results in additional benefits than costs, and of course, as long as benefits and costs are fairly shared between the customer and the contractor (Stare, 2013). One of the main drivers behind the development of agility was the sophistication of customer preferences and needs in terms of requirement changes, and denying customers requirement changes during project delivery would be the equivalent of reverting to the use of traditional project management techniques rather than agile project management (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019).

Deliver working software frequently, from a couple of weeks to a couple of months, with a preference for the shorter timescale: Businesses must frequently survey and review to swiftly come up with appropriate products and versions because when a project's work is prolonged or the preparation time is increased, the result may no longer be to taste (Nguyen, 2022). In agile project management, the swift delivery of software and products will establish a relationship between the project team and the customer (Nguyen, 2022).

Business people and developers must work together daily throughout the project: Project teams continually assess their progress since they want to fully satisfy the customer and produce a high-quality output (Gillis, Torode, and Pratt, 2023). While in some ways this makes sense, outsourcing a task without making sure that the objectives have been understood and that their concept or solution is adequate can be rather burdensome for the customer (Stare, 2013). To complete the project swiftly, progress must be continuously monitored because challenges and concerns may be resolved quickly through daily meetings (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019). The software development team will have a better understanding of the company with

frequent meetings, which will enable them to deliver suitable solutions for the project quickly and customers also have the opportunity to learn more about solutions to assess efficiency, duration, expense, etc (Nguyen, 2022).

Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done: The success of the project depends significantly on the human resources component (Imran and Zaki, 2016). A strong project team leader will understand how to effectively foster an environment where team members can show their skills (Coleman and Bourne, 2018). In an agile context, team members must be highly motivated and given all the assistance they require to do their work efficiently (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019). Both the project team members and the project leader must have trust in one another for the team to deliver as a whole as agility cannot flourish in an atmosphere where there is no trust (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019).

The most efficient and effective method of conveying information to and within a development team is face-to-face conversation: Face-to-face communication is an efficient method of managing work, allowing for the swift and complete transmission of information through words, gestures, and other means such as messaging and emailing while working is useful but time-consuming (Smit et al., 2017). Only the representatives of each group should be required to attend meetings for large agile teams (Stare, 2013).

Working software is the primary measure of progress: The success of Agile projects is usually determined by whether or not its features are functional (Gothelf, 2021). If the features are not functional yet, then the project is still being developed (Nguyen, 2022). Customers will be able to see the stage of development of their project if a functioning product is delivered (Nguyen, 2022).

Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely: Although overtime may be required in many projects, it should not be done for an extended length of time as it might harm the project team's health and product quality, creating delays in development (Alliod, 2019). As a result, Agile project management considers sustainability to be the key to achieving progress (Crnogaj, Tominc, and Rozman, 2022). Agile project management necessitates a consistent pace to complete projects in the least amount of time (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019).

Continuous attention to technical excellence and good design enhances agility: The project's organization and designs must be clear and adaptable to make it easier for the development team

to update and maintain the product (Nguyen, 2022). To maintain long-term quality productivity, the Agile team should devote time to reorganizing and refining the software architecture if there are any discrepancies (Rigby, Sutherland, and Takeuchi, 2016).

Simplicity — the art of maximizing the amount of work not done — is essential: Although this concept implies simplicity in iteration planning (how to meet iteration objectives as effectively as feasible), this principle also partially refers to simplifying the customer's needs; the project team might provide a simpler solution to the client's demand (Stare, 2013).

The best architectures, requirements, and designs emerge from self-organizing teams: Agility emphasizes teamwork above individual abilities for effective delivery (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019). Emphasizing initiative and independence helps the project achieve successful outcomes, and once independence is attained at work, the team will be able to come up with fresh and unique ideas as well as effective solutions (Nguyen, 2013).

At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behaviour accordingly: This concept may provide useful direction to project teams since project teams frequently need to find time to talk about their work and explore suggestions for improved and more effective techniques, even in the context of lengthier 'conventional' projects (Stare, 2013). For efficient Agile project management, the entire team should analyse the lessons gained from the previous project to determine what needs to be improved, altered, removed, and so on (Balaban and Duraskovic, 2021). The more often the revision is done, the more possibilities there are for everyone to make early and regular modifications to the project (Marnada et al., 2022). As a consequence, the team's work efficiency will improve, as will the production process and customer satisfaction (Nguyen, 2013).

1.3.3 Key Agile Frameworks

Agile project management is not a one-size-fits-all strategy, but rather a set of approaches and frameworks adapted to specific project requirements (Binci, 2022). Agile is a generic term for a wide range of methods and techniques that share the values and principles indicated above in 2.3.1 and 2.3.2, but each has its areas of application and unique characteristics (Trivedi, 2021). Scrum, Kanban, Hybrid, Lean, Bimodal, Extreme Programming (XP), and Crystal are the most common agile frameworks and techniques (AltexSoft, 2016).

1.3.3.1 Scrum

Scrum is a structured framework that splits work into short, time-boxed iterations known as sprints, encourages strong collaboration across cross-functional teams, and prioritizes customer

input via frequent review sessions.2022 (Brush and Silverthorne). Scrum, as described by Schwaber and Sutherland (2017), is a framework through which individuals can deal with complicated challenges while maintaining high productivity and producing high-quality products. Scrum is derived from rugby, where Scrum is an arrangement in which team members quickly adopt plans, with each player playing a specific role (Zayat and Zenvar, 2020). The scrum technique enables programmers to organize their activities by breaking their work into tiny tasks that can be accomplished within set time cycles or sprints, tracking achievements and modification of plans in frequent meetings, and developing products progressively (Lei et al., 2017). Scrum is a holistic approach to flexible, autonomous, and flexible collaboration with six primary characteristics which include built-in instability, autonomous project teams, overlapping development stages, multi-learning, subtle control, and knowledge transfer (Hidalgo, 2019). Traditional system development projects typically progress from phase to phase, with idea development, feasibility assessment, product design, development process, prototype fabrication, and the final production process occurring in sequential order (Jonsson, 2013). However, the Scrum development process is built on the notion that product delivery is done continuously after each sprint in the Scrum process (Jonsson, 2013).

There is a product owner, a Scrum master, and a development team on every Scrum team (Trivedi, 2021). Scrum teams are cross-functional and self-organized, meaning that they decide how to operate rather than being supervised by others (Hoda, Noble, and Marshall, 2013). Scrum teams are built to be adaptable and to operate with high creativity and productivity, and products are delivered after each iteration, allowing for feedback from customers at every phase (Trivedi, 2021). When the scrum team is expanded to include stakeholders and an agile mentor, it transforms into a project team involved in complete project development (Layton, 2016d), as represented in figure 3.

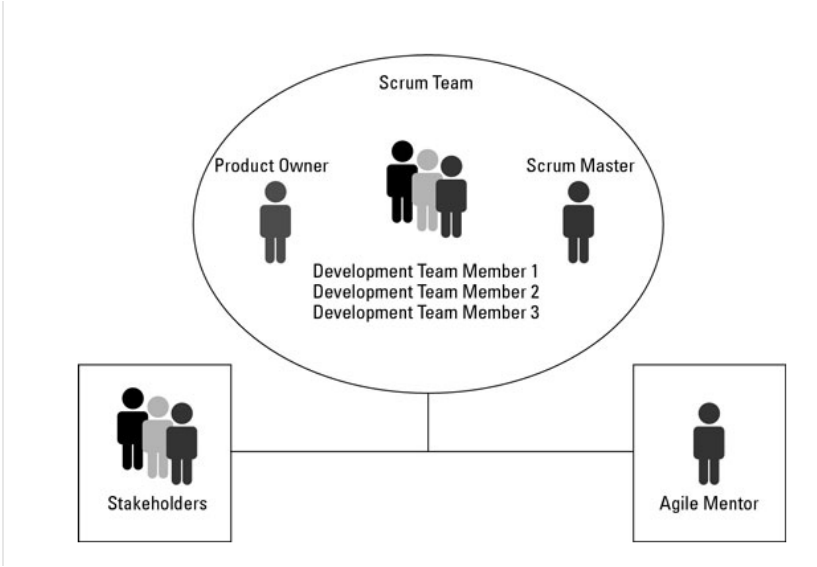

Figure 3. Team roles within a Scrum framework (Layton, 2016d)

The Product Owner is responsible for maximizing the value of the product created by the Scrum Team; however, how this is accomplished differs considerably across businesses, Scrum Teams, and individuals (Jonsson, 2013). The Product Owner, who might be a customer or another stakeholder, maintains an active role during the project, communicating the product's overall vision and offering timely feedback on what has been done after each Sprint (AltexSoft, 2016). The Product Owner serves as an intermediary between customers and the development team, serves as the product's advocate, and ensures that the requirements for the final product have been understood and mutually agreed upon (Trivedi, 2021). The Product Owner is also responsible for the efficient management of the Product Backlog, which entails the following tasks: developing and communicating the Product Goal, developing and ordering Product Backlog items, and ensuring that the Product Backlog is transparent, accessible, and easy to understand (Jonsson, 2013). The Product Owner remains accountable for these aforementioned tasks whether they carry out the tasks themselves or assign them to others (Jonsson, 2013).

As the "servant leader" who serves the team in a variety of ways, including supporting scrum, enabling the team's performance, and eliminating challenges, the scrum master is a key player in carrying out and sustaining scrum, the most agile software development method (Shastri, Hoda, and Amor, 2021). According to Noll et al. (2017), the Scrum Master is in charge of guiding the development process and ensuring that the team adheres to the necessary agile values, principles, and practices. Daily coordination meetings are organized by the Scrum Master, who also eliminates any challenges the team confronts (Noll et al., 2017). In a large-scale distributed

setting, Bass (2014) identified six Scrum Master activities: process anchor (supports compliance to agile techniques), stand-up facilitator (ensures that team members communicate the status of and all information about challenges experiences during each sprint), impediment remover (ensures that developers can make advancements with their work), sprint planner (facilitates user story evaluation and workload planning which takes place just before development activities begin in each sprint), scrum of scrums facilitator (coordinates activities among other scrum masters in the development project), and integration anchor (facilitates the integration of code repositories created by collaborating teams working concurrently).

The Development Team is the leading proponent of sustainable development approaches and collaborates to create and test successive versions of the final product (Trivedi, 2021). Programmers, testers, designers, authors, and anybody else who participates directly in product development make up this team (Layton, 2016d). The development team, which is made up of experts responsible for creating the project in accordance with the intended specifications in the product backlog, delivers the new product as an increment after each sprint (Zayat and Senvar, 2020). A scum development team should be self-organized, cross-functional, free of position hierarchies, and flexible enough to collaborate in many team areas while yet possessing specialized skills (Overeem, 2016).

The first step in a Scrum activity is setting up the product backlog, which is done under the Scrum master's supervision, after which, sprint planning begins, which is followed by a sprint that produces a deliverable product that is ready for the customer's approval, then the process is iterated upon (Zayat and Senvar, 2020). Figure 4 shows the steps involved in the Scrum framework.

Figure 4. The Scrum lifecycle (Travares et al., 2019)

The Scrum Team asks and clarifies unresolved queries to see if they have the necessary capacity and expertise to build and deliver the project as the product owner presents the items on the Scrum Product Backlog in order of decreasing priority (International Scrum Institute, n.d.). Before the Sprint begins, the Scrum Team must make sure that the necessary technical and human resources are available (Hema et al., 2020). To properly provide some software features, they must validate that all requirements and dependencies have been met (Alhazmi and Huang, 2018). Each Sprint begins with a Sprint Meeting Planning, which is an avenue to determine what type of sprint will be carried out next (Permana, 2015). Every day, each team meets to review what has been done since the last routine Scrum Meeting, any difficulties that have arisen during the work, and what will be done in the next sprint (Permana, 2015). The Scrum Master will be in charge of the meeting, and at the end of the sprint, there will be a meeting to carry out a demo of all that has been done (International Scrum Institute, n.d.). Scrum is the ideal option when the precise amount of work cannot be determined and the release date is not specified as it works effectively for long-term, complex projects that require stakeholder feedback, which may significantly alter project requirements (AltexSoft, 2016).

1.3.3.2 Kanban

Kanban is a value-flow optimization technique that employs a visual, pull-based system that consists of three approaches that function in tandem: establishing and visualizing a workflow, actively managing items in a workflow, and improving a workflow (Yeret et al., 2020). Kanban, which means signboard or billboard in Japanese, is a lean manufacturing and just-in-time manufacturing (JIT) scheduling technique that was created by Taiichi Ohno, an industrial engineer of Toyota, to enhance factory productivity (Deslisland, Suryono, and Rani, 2020). Kanban is a work scheduling strategy that increases team efficiency by eliminating idle time which can occur in any process, workflow, or procedure and is typically traceable back to possibilities within the process (Wakode, Raut, and Talmale, 2015). Kanban has shown its efficacy in a variety of workplaces over time, and it is currently one of the most popular production approaches globally (Zayat and Senvar, 2020). Although Kanban is aimed at reducing waste by decreasing non-value-added processes, different types of waste are expected to emerge and should be managed independently (Kumar, Maheshwary, and Malche, 2019). Kanban is designed to support continuous delivery while keeping things straightforward and less taxing for the development team (Trivedi, 2021). Instead of using strictly time-bound sprints, Kanban development teams organize

around a small number of tasks that are always in progress and may be released whenever they are ready (Trivedi, 2021).

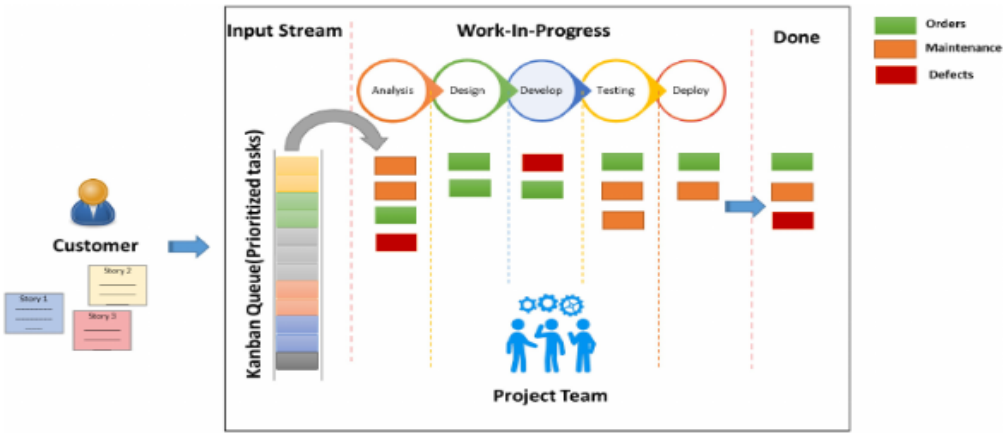

Figure 5. Kanban board (Kumar, Maheshwary, and Malche, 2019)

The development method enables greater planning flexibility, quicker turn-around, transparent goals, and clear targets since the team may immediately grab the next item from the pipeline as the work is finished (AltexSoft, 2016). Three columns make up a basic Kanban board; The tasks that have not yet been begun are shown in the first column under "To Do," which is often classified by priority or according to the arrival times of the tasks (Hennigan and Bottorff, 2022), the tasks that are currently being worked on are listed in the "In progress" column, while the tasks that have been finished are listed in the "Done" column (Andersson and Nugin, 2020). This straightforward method makes it very evident what has to be done, exposes any challenges that may be present, and allows the board to be expanded to include as many columns as are required for the framework (Zayat and Senvar, 2020), as illustrated in Fig. 5 above. By introducing change in little increments, Kanban provides context-specific process improvement, reducing friction and resistance to change (Vallon et al., 2019). According to Poppendieck and Cusumano (2012), the value stream—the various phases of the development process—is represented by columns on a board. Cards which are moved around the chart columns are used to describe the tasks (Dos Santos et al.,2018). According to Corona and Pani (2013), a common setup for a Kanban chart used in the context of software includes at least columns for the stages of definition, development, test, and deployment. As a result of setting a limit for the amount of work that can be done in each column, flows and constraints tend to be the major topics of discussion in daily meetings and are essential for identifying potential opportunities for improvement (Dos Santos et

al., 2018). Additionally, the chart's function as a visual aid supports the value stream review that comes from it which, in turn, drives process improvement as well as the stated policies that support it (Dos Santos et al., 2018).

1.3.3.3 Extreme Programming (XP)

Extreme programming is an approach to project management that emphasizes speed and simplicity through brief phases of development and little documentation (Raeburn, 2022). According to Yadav and Yasvi (2019), extreme programming is an iterative software development process that seeks to build more efficient software while also assisting in offering an ideal solution. Extreme Programming is different from conventional software development approaches in that it emphasizes flexibility and responsiveness to changing customer demands (Yadav & Yasvi 2019). The extreme programming process outlines who does what, when, and how, provides principles, methodologies, and procedures for the efficient, routine, and consistent production of software systems, and serves as a template for the development of projects (Shrivastava et al., 2021). Extreme programming is also a process framework since it can (and very certainly will) be modified to the individual requirements of teams, projects, and businesses (Khan et al., 2021). Extreme programming is also a lightweight approach or a Crystal approach that can adapt to changing requirements. Extreme Programming focuses on the technical components of software development, specifically quality code, and integrates the most significant ones, providing Agile teams with a broad range of tools to enhance the engineering process (AltexSoft, 2016). Extreme Programming, like other Agile approaches, is a software development methodology that is divided into work sprints, follows an iterative process, and allows developers to respond to user stories, adjust and adapt in real-time (Singh and Pandey, 2017). Extreme Programming, however, is far more rigorous, relying on regular code reviews and functional testing to rapidly make modifications and is very innovative and collaborative, emphasizing collaboration across all stages of the development process (Raeburn, 2022).

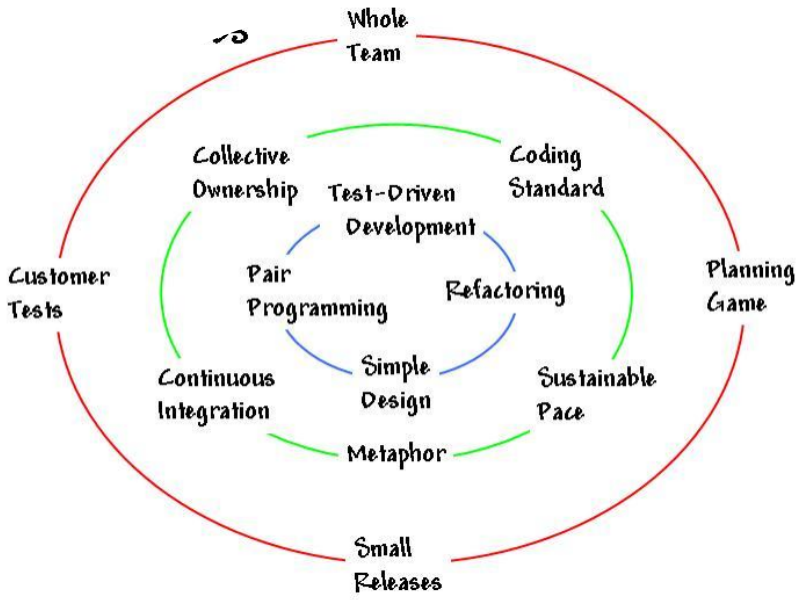

Figure 6. Extreme Programming practices (van Osch and van Roosmalen, 2015)

Extreme programming employs twelve software engineering best practices which include: "planning game, small release, metaphor, simple design, continuous testing, refactoring, pair programming, shared ownership, continuous integration, 40-hour week, on-site customer, and coding standards" (Anwer et al., 2017 as cited in Khan et al., 2021) as shown in Figure 6 above. Extreme programming has been adapted by researchers for a variety of applications as they have tried to modify extreme programming to make it more applicable in various contexts by modifying its phases or adding new practices for specific purposes (Khan et al., 2021). Extreme programming provides various advantages over traditional methods, such as the ability to readily adapt to regularly changing requirements, produce high-quality software in a shorter amount of time at lesser costs, and assist small businesses with executing software process improvement strategies (Sergeev, 2016). According to AltexSoft (2016), the Extreme programming framework should be utilized when it is certain that not only developers but also customers and managers, will be able to collaborate on a project.

1.4 Communication Dynamics in Agile Project Management

Effective communication within agile teams forms the backbone of successful project management and is integrally linked to building strong customer engagement (Zerfaß et al., 2018). The importance of communication in agile project management cannot be overemphasized as it fosters teamwork, sets clear expectations, and ensures that customer feedback is not only received but also taken into account for continuous improvement (Bello, 2023). Agile teams place a high

value on transparency when communicating information about the project, challenges, and status updates with customers, which fosters a culture of confidence and accountability (Ibekwe, 2023). Customers appreciate the ability to actively engage in the project's development and value being kept informed (Vanhala and Kasurinen, 2019). Regular communication ensures sure customers are informed as soon as there are any changes, challenges, or modifications (Galli, 2022). Agile teams can adapt quickly to changing customer demands and expectations due to this real-time information exchange, which is an attribute of agile's adaptability (Bello, 2023). Setting clear expectations from the beginning is a crucial part of effective communication in agile project management, in addition to delivering project updates (AltexSoft, 2016). Project goals, priorities, and scope are also established in collaboration with customers by agile teams (Marnada et al., 2022). The success of the project as a whole is influenced by the customers' ability to make informed decisions throughout the project, which reduces the risk of scope creep and ensures that their requirements are met (Marnada et al., 2022).

Agile communication goes beyond only conveying information; it also actively seeks and values feedback from customers (Korkala, 2015). Customers get the chance to express their opinions, concerns and suggestions during routine feedback loops like sprint reviews and retrospectives (Ibekwe, 2023). Customer engagement is significantly enhanced by this feedback-centric strategy (Javornik and Mandelli, 2013). Agile teams profit from such feedback as it informs their decisions and improvements and empowers customers to influence the project's path, fostering a sense of ownership and partnership (AltexSoft, 2016). Agile's communication dynamics promote collaboration among team members, including customers who are considered essential team members (Batra, Xia, and Zhang, 2017). According to agile principles, individuals and interactions are prioritized over processes and tools (Koi-Akrofi J, Matey, and G, 2019). Collaboration deepens customer engagement by involving them in agile routines like sprint planning and daily stand-ups (Wiesche, 2021). This active participation enables customers to monitor development, quickly correct issues, and collaboratively improve project outcomes (Wiesche, 2021).

1.5 Theoretical Frameworks for Customer Engagement in Agile Project Management

It is essential to understand the theoretical underpinnings of customer engagement in the context of agile project management. It provides a conceptual framework for understanding the dynamics and mechanisms that drive effective customer engagement.

1.5.1 The Agile Manifesto and Customer Collaboration

In the context of agile project management, the Agile Manifesto is a fundamental resource that not only shapes strategies but also incorporates a philosophy with broad implications for customer engagement (Johansson, 2012). While it is not a standard theory in the academic sense, its impact and guiding principles are useful in understanding the dynamics of customer engagement in agile contexts (Aditya, 2023). The Agile Manifesto, written in 2001 by a group of experienced software engineers, demonstrates a collective recognition of the limitations of traditional project management methodologies (Al-Saqqa, Sawalha, and Abdel-Nabi, 2020). It articulates four essential values and twelve principles that, when combined, form a comprehensive approach to project management (Koi-Akrofi. J., Matey, and Koi-Akrofi. G., 2019). Among these, the principle that resonates most powerfully in the context of customer engagement is: "Customer Collaboration over Contract Negotiation" (Talai, 2023). This principle encourages active customer engagement throughout the lifecycle of a project (Talai, 2023). It represents a significant shift in perspective, moving away from the traditional transactional approach, in which customer interactions are often limited to contract negotiations and periodic deliverables, and instead advocates the idea of customer collaboration as an ongoing, dynamic process that influences every aspect of agile project management (Batra, Xia, and Zhang, 2017). This principle emphasizes, at its core, that cultivating a collaborative and interactive relationship with customers is more valuable than meticulously negotiating and clarifying contractual terms (Jarrell, 2018). Agile project management prioritizes the fluidity of human interactions above the rigidity of contracts, and there can be no Agility without customer engagement (Dadhwal, 2023). It recognizes that, while contracts are essential, they should be used to facilitate collaboration rather than dictate it (Seeton, 2022). This is consistent with theories that emphasize the importance of human relationships and interactions in project success (Seeton, 2022).

1.5.2 Social Exchange Theory and Customer Collaboration

Social Exchange Theory, a well-established framework in the field of social psychology and sociology (Kim, 2016), offers valuable insights when applied to the context of customer engagement within agile project management. At its core, this theory proposes that people participate in social relationships to obtain something valuable in return (Rohall, 2015). When applied to the agile landscape, it may shed light on why and how customers engage with agile teams, as well as, more importantly, what feeds the reciprocity that supports this engagement. Reciprocity is a core component of Social Exchange Theory (Redmond, 2015). Individuals participate in social interactions with the hope that their activities will be reciprocated in some way (Davlembayeva and Alamanos, 2023). This notion is often applied in the literature when

examining how individuals participate in different social circumstances (Ahmad et al., 2023). Deng, Wang, and Kim (2021) investigate the importance of reciprocity in social exchanges in their study "Culture and Patterns of Reciprocity: The Role of Exchange Type, Regulatory Focus, and Emotions." According to the authors, people are more inclined to participate in prosocial acts when they expect reciprocity or a sense of obligation from others. The Social Exchange Theory is particularly applicable in the agile context as it highlights the underlying reciprocity in customer engagement. Agile teams provide customers with distinct opportunities for meaningful involvement, such as providing input, participating in co-creation, and influencing project direction (Ghimire and Charters, 2022). Customers in turn provide feedback, unwavering support, and enduring loyalty (Kapoor, 2022). Consider, for instance, a scenario in which a software development team actively engages customers in the design and testing phases of a product, and customers invest their time, insights, and skills to tailor the product to their requirements and preferences (Profe, 2020). In exchange, customers get not just a product that closely aligns with their needs, but also a sense of ownership and satisfaction from their efforts (Profe, 2020). Customers connect with agile teams because they expect to receive value in the form of a product or service that meets their needs and desires effectively (Kapoor, 2022). Agile project management, with its emphasis on iterative delivery and rapid adaptation, aligns seamlessly with this expectation (Rateb, 2023). Agile teams promote continuous value delivery throughout the project's lifecycle by providing incremental value at regular intervals rather than waiting for the project to be completed (Al-Saqqa, Sawalha, and Abdel-Nabi, 2020).

1.6 Related Research on Customer Engagement in Agile Project Management

The study "Agile Project Management in Banking" by Yuonan and Mamedov (2020) explored agile project management within the banking industry. According to the study, in banking agile projects, customers are not mere stakeholders consulted during the planning phase; rather, they actively engage throughout the development cycle. They play a crucial role in testing and refining products before finalization and distribution, fostering a collaborative environment between the bank and its customers. The study highlights the diversity of channels through which customer feedback is gathered. In addition to direct interactions, such as customer interviews and surveys, analytics tracking plays a pivotal role in providing indirect but valuable insights. This multifaceted feedback mechanism allows banks to comprehensively understand customer preferences and requirements. However, an intriguing finding is the regulatory influence on the prioritization of customer needs. While agile principles prioritize customer-centricity, the study reveals that banks may sometimes have to deviate from this approach due to the stringent

regulatory frameworks governing the banking sector, as compliance with regulatory requirements can, at times, take precedence over customer-focused agile practices.

What, when, why, and how? A comparison between agile project management and traditional project management methods by Salameh (2014) compared Agile Project Management (APM) and Traditional Project Management (TPM) methods and provides insights into customer engagement within Agile Project Management. The study revealed that Agile Project Management (APM) employs an iterative and collaborative approach, where project teams and stakeholders actively work together throughout the project. This collaborative atmosphere facilitates a deeper understanding of the project's domain and encourages continuous engagement with stakeholders. The study notes that Agile teams engage with customers throughout the project's lifecycle, aiming to understand their evolving needs and preferences. According to the study, the customer-centric approach of APM typically leads to higher customer satisfaction levels and significant economic benefits.

Siddique and Hussein's (2019) study explored the dynamics of customer involvement in Agile software projects within the Norwegian software industry. The research highlighted both the enablers and barriers that influence the effectiveness of customer engagement in Agile project management. Enablers highlighted in the study emphasize the importance of customer understanding. Project managers and product owners are expected to possess the competence to understand and fulfil customer needs and expectations adequately. Effective communication emerges as a cornerstone, facilitating collaboration between team members and, critically, between customers and suppliers. Face-to-face communication is particularly recognised for its effectiveness. Additionally, the study emphasises that transparency and openness, facilitated by frequent project deliveries, are pivotal for building trust and ensuring that customers remain engaged. The establishment of trust itself is recognized as a critical enabler, necessitating open communication, collaboration, and transparency. Consistent cooperation, involving close collaboration with the customer throughout the project, is also considered essential for effective customer involvement. Conversely, the study highlighted significant barriers to customer involvement in Agile projects. These barriers include customers not dedicating sufficient time to the project, a lack of customer understanding regarding Agile methodologies, the presence of team members lacking essential skills, and inadequate communication. Overcoming these barriers often requires enhanced communication, collaboration, and transparency.

Tessem (2017) studied the dynamics of customer engagement within Agile system development projects and its influence on project outcomes. The research highlights that the

effectiveness of an Agile project hinges on the customer's ability to collaborate with and support the development team, involving various stakeholders from within the customer company. The study found that effective communication practices and a transition to a purer Agile project management approach contribute to maintaining an engaged customer, despite initial delivery challenges. The analysis identified critical events that played a pivotal role in achieving an engaged customer despite initial setbacks. These include the adoption of Agile and continuous delivery approaches, the hiring of a consultant as a product owner, persistent requests for enhanced customer participation, and the allocation of local domain experts by the customer to the project. These events highlight the value of communication between developers and customers and highlight the importance of making customers aware of their responsibilities for project success. Practically, the study emphasized the significance of customer and contractor awareness regarding their roles and responsibilities in ensuring project success. It stresses the importance of transparent communication and collaboration when encountering cooperation issues. Remarkably, the research suggested that transitioning to Agile methodologies can mitigate conflicts and support project success, even in the face of early requirements challenges in fixed-price projects.

Research conducted by Bin-Hezam and Alyahya (2016) addressed the complexities of managing customer involvement in globally distributed Agile software projects. The study noted that agile methodologies emphasize constant customer interaction, particularly during requirements analysis and acceptance testing phases. However, in geographically dispersed projects, coordinating customer engagement becomes challenging. The study highlighted a lack of computer-based tools designed to support customer involvement within project management systems. To tackle these issues, the research proposes a computer-based process support system that aims to enhance the management of customer participation in distributed Agile teams. This system seeks to improve the quality of communication between customers and Agile teams and boost customer awareness of ongoing project activities.

Vanhala and Kasurinen (2019) explored the role of customers in Agile software development projects, specifically within the SCRUM framework using a multiple case study. They examined three separate software projects conducted under SCRUM, each lasting slightly less than a year, with a focus on the customer's engagement in the Agile process. The study highlighted the demands placed on customers, particularly when working within a one-week sprint cycle, which can significantly enhance efficiency but also require a full-time commitment from customers. These demands also impose some burden on developers. The research found that effective communication, especially in projects with team members and customers spread across

various European locations, played a pivotal role in project success. Asynchronous communication tools like Slack were highly commended, although direct communication was used for more complex issues. Importantly, the study revealed that online communication did not pose significant challenges in these Agile projects. The study found that while all cases experienced difficulties aligning Agile projects with fixed budgets, collaborative efforts, partnerships, and trust-building helped mitigate most of these problems.

Hoda, Noble and Marshall (2011) researched the impact of inadequate customer collaboration on self-organizing Agile teams. In their study, they emphasized the crucial role of customer collaboration in Agile software development and investigated the consequences of inadequate customer involvement in real-life Agile projects. They conducted a Grounded Theory study over three years, involving 30 Agile practitioners from 16 software development organizations in New Zealand and India. The study revealed a significant challenge faced by Agile teams: insufficient customer engagement. Customers in these Agile projects were not as engaged as Agile methodologies typically require. The study discussed the causative factors behind this lack of customer collaboration, and its adverse effects on self-organizing Agile teams, and introduced the concept of "Agile Undercover" – a set of strategies employed by Agile teams to continue practising Agile despite the absence or ineffectiveness of customer involvement.

1.7 Gaps in Research

The existing literature lacks a comprehensive identification and categorization of customer engagement strategies within the Agile Project Management framework. While the importance of customer engagement in Agile Project Management and strategies for customer engagement within this context are acknowledged, there is no systematic categorization or prioritization based on their real-world effectiveness. There is a lack of in-depth analysis of how these identified customer engagement strategies perform in practice. While the importance of customer engagement is recognized, there is insufficient research that evaluates their actual impact on project outcomes and customer satisfaction. Existing studies often focus on theoretical aspects without providing practical implementation guidance. Organizations need actionable insights on how to adapt and use these strategies effectively in real-world Agile Project Management scenarios. The literature does not offer sufficient contextual clarity surrounding the identified strategies. Understanding the relative strengths and areas of application of these strategies is essential for organizations to make informed decisions that align with their unique project requirements. There is also a notable gap in providing practical recommendations based on research findings. Organizations require guidance on how to optimize customer engagement

strategies within their APM processes, bridging the gap between research insights and practical application.

This study distinguishes itself from existing research by directly addressing these critical research gaps within the domain of Agile Project Management. While prior studies have touched upon aspects of customer engagement in Agile projects, none have taken a holistic approach to systematically identify, evaluate, categorize, and provide practical insights and recommendations regarding customer engagement strategies within the Agile Project Management framework. By bridging these gaps, this study offers a unique and comprehensive perspective. It not only identifies and evaluates the strategies but also offers practical implementation guidance, context-specific insights, and actionable recommendations. This approach equips organizations with the tools and knowledge to optimize customer engagement in their Agile Project Management practices effectively. Consequently, this research contributes significantly to enhancing the field of Agile Project Management by providing a clearer and more practical understanding of effective customer engagement strategies.

1.8 Theoretical Foundation for the Current Study

This study is supported by two primary theoretical frameworks: Agile Principles and Methodologies and Social Exchange Theory. These frameworks provide a solid theoretical foundation for understanding and examining customer engagement dynamics in the context of agile project management.

The Agile Manifesto serves as a guiding philosophy for agile project management. It places a strong emphasis on values like "individuals and interactions over processes and tools" and "customer collaboration over contract negotiation." These principles emphasize the value of customer engagement, highlighting that active customer collaboration is more beneficial than inflexible contracts. Scrum, for example, encourages customer engagement through roles such as Product Owner. This framework specifically encourages customer participation in sprint reviews and backlog refinement, which aligns with the proposition that customer engagement should be a continuous, dynamic process. Agile methodologies also include practices like daily stand-up meetings, sprint planning, and review sessions. These practices promote communication, transparency, and feedback, which are all necessary for effective customer engagement.

According to the Social Exchange Theory, people engage in social relationships with the expectation of receiving something of value in return. Applied to agile project management, it suggests that customers engage with agile teams because they expect to receive value in the form of products or services that satisfy their requirements. This highlights the mutual nature of

customer engagement in agile projects. This theory emphasizes the shared benefit of agile customer engagement. Agile teams provide customers with opportunities for feedback, co-creation, and influence over project direction. In return, customers provide feedback, support, and loyalty. This explains the symbiotic relationship that exists between agile teams and customers. The agile principle of delivering value also aligns with the Social Exchange Theory. It highlights that customers participate because they see value in the exchange. Therefore, Agile teams must consistently deliver value to maintain customer engagement and support the principles of reciprocity.

2. RESEARCH DESIGN

Saunders Onion, a multi-layered framework developed by Mark Saunders et al. serves as a comprehensive guide for structuring and planning this research design. It includes several dimensions that assist researchers in making informed decisions at each stage of the research process (Melnikovas, 2018). According to the Saunders Onion, as illustrated in Figure 7, the research methodology begins with an understanding of the research's main philosophy, followed by the selection of approaches, methods, and strategies, as well as the establishment of time horizons, all of which lead to the main techniques and procedures for data collection and analysis (Melnikovas, 2018).

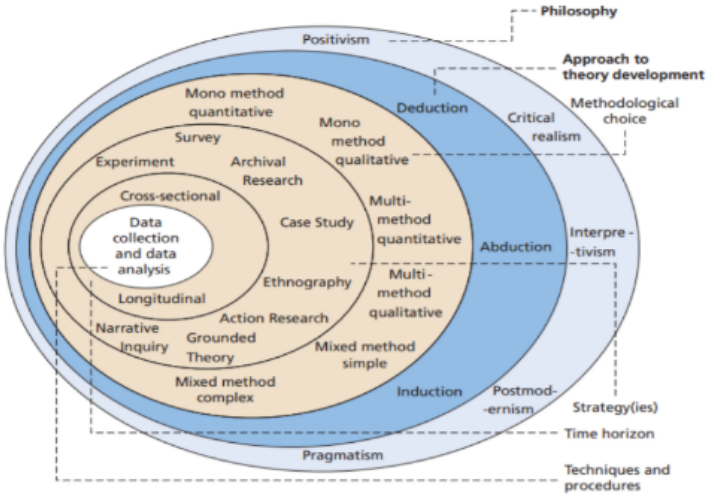

Figure 7. Saunders Onion (van der Poll, 2019)

The research philosophy that supports the entire qualitative research approach in this study is pragmatism. Pragmatism is a philosophy that emphasizes the necessity of aligning research methodologies with research objectives and context (Kaushik and Walsh, 2019). It acknowledges that various research questions may necessitate different philosophical perspectives and encourages researchers to use methodologies that best serve the purpose of the study (Zukauskas, Vveinhardt, and Andriukaitiene, 2017). Pragmatism does not adhere rigidly to any specific philosophical position, such as positivism or interpretivism, but rather seeks the best appropriate technique for the research at hand (Rashid, 2023). As a result, pragmatism includes an element of researcher involvement and subjectivity, particularly when forming conclusions based on participant replies and decisions (Jansen, 2021).

The use of qualitative methods such as semi-structured interviews and theme analysis in this study aligns with the pragmatic philosophy because they are chosen for their practicality and usefulness in examining customer engagement strategies.

Inductive reasoning was used as the study approach for this qualitative research study. Inductive reasoning is a crucial part of qualitative research that contributes significantly to the development of insights, hypotheses, and understandings from empirical data (Bendassolli, 2013). Inductive reasoning is characterized by the process of moving from specific observations and data to the formulation of broader, more abstract, and generalized theories or insights (Sirisilla, 2023). It involves identifying patterns, themes, and relationships in data without preconceived notions or hypotheses (Sirisilla, 2023). Inductive reasoning is particularly well-suited for qualitative research as it enables the emergence of new knowledge based on evidence (Park, Bahrudin, and Han 2020). Inductive reasoning contributes to qualitative research's goal of providing a rich and contextual understanding of the research topic by allowing researchers to immerse themselves in the data, interpret it within its specific context, and derive meaningful insights that capture the complexities of the phenomenon under investigation (Rashid, 2023). Inductive reasoning often leads to the formulation of new theories or the refinement of existing ones, allowing for the development of theories that are anchored in empirical evidence and reflective of the participants' experiences and perspectives (Streefkerk, 2019).

The use of inductive reasoning aligns with the qualitative approach used in this study. Qualitative research is fundamentally exploratory, seeking to better understand the complexities and depths of human experiences and contexts. This approach was supplemented with inductive reasoning, which facilitated the systematic analysis of qualitative data to find recurring themes and patterns, ultimately leading to a deeper understanding of the research topic. Inductive reasoning guided the analysis of interview data throughout the study process, allowing themes and insights on customer engagement techniques to emerge organically. It ensured that the research remained data-driven, contextually relevant, and adapted to diverse participants' experiences and perspectives.

The research strategy chosen for this qualitative research project is grounded research, specifically grounded theory. Grounded research is a method that ideally complements the exploratory nature of qualitative research, allowing hypotheses and insights to emerge organically from empirical data (Chun Tie, Birks, and Francis, 2019). Grounded theory is all about "letting the data speak for itself" in that the researcher uses the data to inform the construction of a new theory, model, or framework (Rashid, 2023). Grounded theory, developed by Glaser and Strauss, is

particularly well-suited for this study, which seeks to identify effective customer engagement strategies within the context of agile project management. Simply put, grounded research allows researchers to "see" the study topic through the eyes of practitioners and study participants resulting in more practical and tailored responses (Makri and Neely, 2021). Grounded theory research is often qualitative, employs an inductive approach, and involves identifying similarities between sets of data, with results obtained from the concluded study without the goal of fitting the findings into a pre-existing theory or framework (Rashid, 2023). Grounded research guided data collection and analysis throughout the study process, resulting in the systematic identification of themes, patterns, and concepts associated with customer interaction strategies. It ensured that the research adhered to qualitative research principles, producing findings that are firmly grounded in the empirical reality of agile project management and customer engagement.

A mono-method approach was chosen for this study. A mono-method approach is described as the intentional employment of a single research method that excludes the incorporation of other data collection or analysis approaches (Vizcarguenaga-Aguirre and Lopez-Robles, 2020). The decision to employ a single method is directly aligned with the study's main goal: gaining a comprehensive understanding of customer engagement within the context of agile project management. Qualitative research methods, particularly semi-structured interviews, are well-suited for exploring participants' experiences, perceptions, and behaviours, and the research seeks to uncover the nuanced and intricate aspects of customer engagement strategies by focusing solely on this method. Melnikovas (2018) describes how a mono-method approach allows for concentrated exploration. This level of investigation is required for examining complex and multifaceted phenomena such as customer engagement. By restricting the study to a single method, the study maintained consistency and focus, ensuring that the data collection and analysis processes remained aligned with the study's aims and research questions. This participant-centric approach aligns with the study's goal of understanding customer engagement from the perspective of individuals who are directly involved.

Semi-structured interviews were used to collect data for this study. Semi-structured interviews are a qualitative research method characterised by a flexible yet supervised data collection approach (Magaldi and Berler, 2020). Semi-structured interviews, as opposed to structured interviews with preset questions, provide a balance of open-ended exploration and predefined topics (Wilson, 2014). They allow participants to express their experiences, perspectives, and insights in a conversational and contextualized manner (DeJonckheere and Vaughn, 2019). The selection and recruiting of participants was the first step in the data collection

process. This involved selecting project managers, agile practitioners, and customers with direct expertise in agile project management. Participants were carefully selected to ensure a diversity of roles, experiences, and perspectives within the context of agile project management. The semi-structured interview guide was meticulously developed to cover the research objectives and questions while allowing participants to elaborate on their experiences and practices. It consisted of a series of open-ended questions and prompts about customer engagement strategies, challenges, and outcomes in agile projects. Participants were also urged to provide real-life examples and narratives to further improve the data. Throughout the interviews, the researcher facilitated the conversation while maintaining a participant-centric approach. The interview process was characterised by active listening, probing for deeper insights, and promoting a secure and open environment for participants to express themselves freely. Interviews were carried out one-on-one and over phone calls depending on which was convenient for each participant.

The study objects included: (a) project managers who were key participants in this study, providing insights into their roles, responsibilities, and strategies to improving customer engagement within agile projects. Their perspectives shed light on the strategies that were effective in engaging customers during agile projects; (b) Agile practitioners involved in a wide range of roles, such as Scrum Masters, product owners, and team members. They shared their experiences and practices related to agile methodologies and customer engagement. Their contributions provided a comprehensive understanding of agile principles and their impact on customer engagement; (c) customers, as recipients of agile project deliverables, shared their thoughts on engagement strategies that resonate with them. Their perspectives helped the researcher to understand the customer's point of view and the influence of engagement strategies on their satisfaction and involvement.

Data analysis is a crucial step in qualitative research because it transforms the obtained information into useful insights and findings (Lester, Cho, and Lochmiller, 2020). The data analysis process began with data preparation, which included many critical steps. Thematic analysis was chosen as the primary data analysis method. Thematic analysis is a systematic method for identifying, analysing, and reporting patterns (themes) in data (Dawadi, 2021). To facilitate the process of thematic analysis, the software NVivo 2019; Version 9.2.1 was utilized. NVivo is a robust qualitative analysis tool that streamlines data management, coding, and theme extraction. This software assists researchers in organizing large volumes of qualitative data and provides a structured environment for in-depth analysis. The integration of NVivo as the analysis tool further enhanced the efficiency and accuracy of the analysis process. It provided a structured framework

for managing the qualitative data and extracting meaningful insights from the interview transcripts. Through the application of thematic analysis using NVivo, this research identified meaningful themes that reflect the participants' viewpoints, experiences, and recommendations, ultimately addressing the research objectives of this research. Triangulation involved comparing and contrasting findings from different sources to enhance the credibility and reliability of the research. This research triangulated the identified themes across multiple interviews to derive commonalities and variations while also using researchers' and theoretical triangulation.

Ethical research practices are essential to protect participants' rights, privacy, and well-being while maintaining the study's integrity and credibility (Resnik, 2020). Obtaining informed consent from participants was one of the most important ethical considerations. It was important to ensure that participants were properly informed about the purpose of the study, processes, and potential risks. Participants also had to agree to the recording of interviews and the use of their data in the study. Participants were given full informed consent forms that outlined the purpose of the study, the interview method, data use, and their rights as participants (see Appendix 6). Before the interviews began, participants were given adequate time to look through the consent forms, ask questions, and provide formal consent. Maintaining the anonymity and confidentiality of participants was paramount. During the interviews, participants provided valuable thoughts and insights, and it was necessary to protect their identities to prevent any potential harm or repercussions. To protect the identities of participants, all identifying information was deleted from the interview transcripts. To further anonymize their contributions, participants were given pseudonyms. Furthermore, precise details that could potentially disclose the identity of participants were excluded from the findings.

Secure storage of audio recordings and transcripts on password-protected and encrypted devices was one of the data security methods implemented to ensure the security of the data collected, including audio recordings and transcripts. Data was only accessible to the research team. Data was stored in accordance with institutional and legislative data protection guidelines. Ensuring participants' emotional well-being was also essential especially when discussing potentially sensitive topics related to project management and customer engagement. If participants felt distressed during interviews, the researcher needed to be ready to provide support or make referrals. To be able to maintain an encouraging and empathic demeanour throughout the interviews, the researcher studied resources on how to handle potentially sensitive topics and emotional responses during research interviews. Participants were also informed that they could stop or pause the interview at any time if they felt uncomfortable.

3. FINDINGS AND ANALYSIS

In this chapter, the qualitative analysis of interviews with nine different professional participants aimed to explore effective customer engagement strategies in the context of agile project management. This research objectives were addressed through a thematic analysis of the interview data, leading to the initial codes (opening codes) of the interview results from nine participants and then the identification of key themes based on the similarities of the codes (See Appendix 1-4). Subsequently, this chapter will delve into a comprehensive discussion of these themes, weaving in relevant literature that both supports and challenges the findings. Furthermore, the discussion integrates the Agile Manifesto and Social Exchange Theory to provide theoretical underpinnings and insights into the practical implications of the identified themes.

3.1 Thematic Analysis: Findings and Discussions

In this section, each theme addresses the five research objectives accordingly as below:

3.1.1 Identification of Customer Engagement Strategies employed within the Agile Project Management Framework

The first theme explores the identification of customer engagement strategies within the agile project management framework. Stakeholder collaboration emerges as a central aspect, emphasising effective communication and collaboration with stakeholders, aligning with agile methodologies' principles that underscore continuous customer involvement.

Types of Customer Engagement Strategies

According to Kettunen et al. (2010), Customer engagement strategies in agile project management span various practices aimed at fostering collaboration, communication, and alignment with stakeholders. PMO Adoption Specialist (Interviewee 1) emphasises the importance of early and continuous customer involvement, stating, *"Joint application design sessions are invaluable. It ensures the client's perspective is embedded from the start, enhancing project alignment."* This aligns with agile principles advocating for customer collaboration over contract negotiation (Hoda et al., 2018). IT Infrastructure Project Manager (Interviewee 3) adds another layer, stressing the use of customer personas and journey mapping: *"Customer personas and journey mapping help in understanding and addressing diverse client needs effectively. It's about creating a shared understanding,"* aligning with the emphasis on shared understanding in agile methodologies (Banerjee et al., 2011). Watt et al. (2014) clearly stated that Stakeholder Collaboration, in the agile context, becomes pivotal, involving engaging stakeholders throughout the project life cycle. The

analyst/Team member (Interviewee 2) supports this by stating, *"We have daily stand-ups where stakeholders are welcome, and we organise sprint reviews to gather their feedback."* Interviewee 2 said.

This aligns with agile principles that emphasise frequent collaboration with stakeholders (Watt et al., 2014).

Aspects of Effectiveness

Effectiveness is a crucial aspect explored in the interviews. Programmer (Interviewee 4) notes, *"Joint application design sessions have proven effective in our projects, ensuring that customer expectations are clear."* In agreement, the Team Leader (Interviewee 9) emphasises the positive impact on product quality: *"Customer feedback loops in code reviews contribute to not just meeting requirements but exceeding them in terms of product quality."* This resonates with Margini et al. (2017) literature suggesting that early and continuous customer feedback enhances product quality. The effectiveness of collaborative sessions in achieving a shared understanding of project goals is supported by Hussein (2019), who states that collaborative customer involvement is central to agile success. Another aspect highlighted is the integration of customer feedback loops, with Scrum Master (Interviewee 7) mentioning, *"Iterative prototyping and continuous feedback loops are essential for refining the product based on real-time client input,"* aligning with the importance of iterative development cycles and continuous customer feedback (Dingsøyr et al., 2012).

Specific Agile Engagement Practices

The findings from this thesis's interviewee on specific agile engagement practices as revealed by an Agile coach (Interviewee 5), who emphasises the importance of user stories and their contribution to effective backlog navigation: *"User stories play a crucial role in our projects, providing a clear and concise way to capture client requirements."* Agile Coach (Interviewee 5) adds, *"In agile, collaborative refinement sessions involving the team and clients are common. It ensures that evolving requirements are understood and incorporated effectively,"* This comment aligns with Tessem's (2017) findings that agile practices advocate continuous refinement of requirements while emphasising collaborative strategies, and continuous customer involvement. Scrum Master (Interviewee 7) sheds light on sprint ceremonies:

"Sprint ceremonies, especially sprint reviews, foster direct client participation. It's a dedicated space for clients to provide feedback on increments, ensuring alignment with expectations,"

This aligns with agile ceremonies designed to facilitate transparency and collaboration (Sultan, 2019). Team member (Interviewee 8) stresses the significance of sprint reviews in soliciting client feedback, aligning with the Scrum framework where sprint reviews serve as a platform for stakeholders to inspect and adapt the product increment (Schwaber and Sutherland, 2017).

Integrating Findings

The research findings seamlessly align with the foundational principles of agile methodologies, particularly emphasising collaborative strategies, continuous customer involvement, and the implementation of specific agile practices while focusing on the identification of customer engagement strategies, resonates with the Agile Manifesto's core principles and the existing literature on agile project management. The findings reinforce the Agile Manifesto's emphasis on customer collaboration. According to Siddique and Hussein (2016), Stakeholder Collaboration, early and continuous customer involvement, and specific agile engagement practices highlighted in the interviews align with the manifesto's principle of preferring individuals and interactions over processes and tools (Siddique and Hussein, 2016). Scholars like Margini et al. (2017) assert that effective collaboration with stakeholders, as emphasised in the findings, is foundational to agile success. However, in disagreement, Hoda et al., (2011) research acknowledges that it is not always easy to effectively collaborate with stakeholders and have everyone's interest; Hoda et al. (2013) added that numerous challenges may arise, such as difficulties in engaging remote stakeholders which might impend the agile practices. This recognition of challenges adds a layer of realism to the alignment with the Agile Manifesto, as it acknowledges that not all agile practices seamlessly translate to every project context (Hoda et al., 2018). As per Hoda et al. (2013), the application of Social Exchange Theory provides further insight into the reciprocal nature of customer interactions within agile projects. The continuous exchange of information, feedback, and collaborative efforts between the project team and customers exemplifies the give-and-take dynamics inherent in successful relationships (Hoda et al., 2018). This reciprocal exchange contributes to building a positive and mutually beneficial relationship, fostering effective customer engagement.

While this research's findings strongly align with the positive aspects of customer engagement, it acknowledges contrasting perspectives within the existing literature. The debate on the potential challenges of excessive customer involvement, particularly in changing requirements late in development, is well-documented; Hoda et al. (2011) assert that this recognition emphasises the need for a balanced approach, considering project constraints and priorities. The delicate balance between customer engagement and project constraints is a common thread as per Salameh (2014) and is reflected in the ongoing debate in the agile community. This tension is inherent in agile

methodologies showcasing the multifaceted nature of effective customer engagement strategies within agile projects (Salameh, 2014).

Overall, the integration of findings with the Agile Manifesto and Social Exchange Theory provides a comprehensive understanding of effective customer engagement strategies in agile project management. The alignment with agile principles emphasises collaboration and continuous customer involvement. Overall, the identification of customer engagement strategies in agile project management involves a multifaceted approach, integrating collaborative practices, feedback loops, and specific agile methodologies tailored to customer needs. This theme emphasises the dynamic and varied nature of these strategies in fostering effective customer engagement within agile projects.

3.1.2 Evaluation of Strategy Effectiveness based on Real-world Applications and Outcomes

This theme expresses the evaluation of the effectiveness of customer engagement strategies in real-world agile project applications. Based on the collective interviewee responses, this theme illuminates the role of Client Collaboration in Sprints as a standout strategy, emphasising active client participation throughout iterative development cycles. The discussions are grounded in practical scenarios from interviewees, showcasing the tangible impact of these strategies on project success.

Real-world Impact of Customer Engagement Strategies

The evaluation of the effectiveness of customer engagement strategies is exemplified by the emphasis on Client Collaboration in Sprints (Raison and Schmidt, 2013). IT PM manager (Interviewee 6) accentuates the iterative nature of agile, stating,

"Clients actively participate in our sprint cycles, witnessing progress and providing prompt feedback. This iterative process ensures alignment with client expectations."

Interviewee 9, a Team Lead, shares a real-world scenario: *"In a recent project, involving the client in sprint planning resulted in a clearer project scope. This alignment from the start positively impacted the entire project's trajectory."* This aligns with Vallon et al. (2018) literature emphasises the importance of early client involvement in project success. The importance of iterative feedback loops is underlined by Interviewee 2, an Analyst/Team Member, who emphasises regular retrospectives with customers. IT Infrastructure Project Manager (Interviewee 3) provides another perspective: *"We had a complex infrastructure upgrade. Regular client collaboration in sprints allowed us to adapt the plan dynamically, mitigating risks and ensuring successful implementation."* This resonates with agile principles advocating adaptability to changing

requirements (Hoda et al., 2013). Salameh (2014) added that the emphasis on the iterative and collaborative nature of agile contributes to heightened client satisfaction and successful project outcomes.

Determining the Success of Customer Engagement Strategies

Determining the success of customer engagement strategies involves assessing various factors. Programmer (Interviewee 4) emphasises the use of customer feedback loops in code reviews, stating, *"Incorporating customer feedback during code reviews significantly enhances product quality."* This aligns with the Agile Manifesto's principle of responding to change over following a plan, demonstrating the effectiveness of immediate client involvement (Kirvan et al., 2023). Analyst/Team Member (Interviewee 2) provides an additional dimension: *"We gauge success by the extent of alignment between initial requirements and the delivered product. The closer they are, the more successful the engagement strategy."* This aligns with agile principles focusing on delivering value to customers through incremental and iterative development (Korkala, 2015). Team Member (Interviewee 8) adds insights into the effectiveness of customer engagement strategies in boosting team morale and productivity. Client satisfaction is highlighted: *"Success is when the client is genuinely satisfied, not just with the end product but throughout the development journey."* This aligns with research suggesting that client satisfaction is a crucial success factor in agile projects (Dingsøyr et al., 2012). This aligns with the broader agile principle of individuals and interactions over processes and tools (Kirvan et al., 2023), suggesting that successful engagement positively influences team dynamics.

Metrics and Indicators in Assessing Outcomes

According to Vanhala and Kasurinen (2019), Metrics and indicators play a crucial role in gauging the outcomes of customer engagement strategies. IT PM manager (Interviewee 6) mentions, *"We rely on sprint metrics, such as velocity and burndown charts, to measure the success of client collaboration in sprints."* This aligns with the agile practice of using metrics for transparency and continuous improvement (Batra et al., 2017). Programmer (Interviewee 4) emphasises: *"Velocity is a common metric; it reflects how well the team and client are working together to achieve sprint goals."* This aligns with the literature suggesting that velocity is a key agile metric reflecting team productivity (Trivedi, 2021). Scrum Master (Interviewee 7) introduces a broader perspective: *"Beyond project-specific metrics, overall team morale and sustained client collaboration are crucial indicators of strategy success."* This aligns with contemporary agile thinking, which emphasises the importance of collaboration and team dynamics (Vincent et al., 2013). Analyst/Team Member (Interviewee 2) discusses the importance of qualitative measures: *"We*

gauge success not only through metrics but also by the depth of client involvement and satisfaction." This aligns with the agile principle of delivering valuable software, highlighting the significance of client satisfaction as a qualitative success indicator (Zerfaß et al., 2018).

Integrating Findings

The research findings seamlessly align with established literature on agile methodologies, corroborating the iterative and collaborative nature of agile practices as emphasised by Yllén (2012) and Vincent et al. (2013). This theme explores real-world applications of customer engagement strategies and substantiates the Agile Manifesto's principles by shedding light on the significance of Client Collaboration in Sprints. As per Joubert (2022), the use of metrics such as velocity and burndown charts to gauge success reflects the agile emphasis on delivering valuable software through continuous customer collaboration.

The Agile Manifesto's core principles of prioritising individuals and interactions over processes and tools align precisely with the theme's emphasis on Client Collaboration in Sprints. The reciprocal nature of the relationship between clients and development teams during the iterative development process echoes the manifesto's commitment to customer collaboration (Hussein, 2019). However, the theme also touches upon critiques regarding the overreliance on quantitative metrics, such as velocity. Galli (2022) cautions against blindly relying on metrics, advocating for a balanced approach that includes qualitative measures; Hence, this highlights an ongoing debate within the agile community, emphasising the importance of both qualitative and quantitative assessments for a holistic understanding of project success (Gillis et al., 2023). The Agile Manifesto's principles, while foundational, must be interpreted and implemented judiciously, considering the nuances of each project context. The application of Social Exchange Theory further reinforces the reciprocal nature of client engagement during sprints (Vallon et al., 2018). The continuous exchange of insights and feedback aligns seamlessly with the give-and-take dynamics inherent in successful relationships, as posited by Ahmad et al., (2023). This theory emphasises the mutual benefits derived from interactions, and in the context of agile project management, it underscores the symbiotic relationship between clients and development teams (Ahmad et al., 2023). In disagreement, Alhazmi and Huang (2018), added that while the success of customer engagement strategies is qualitatively measured through metrics like velocity, the theme acknowledges the importance of quantitative indicators such as client satisfaction, team morale, and product quality. However, it also highlights the challenges in quantifying these qualitative aspects and the inherent subjectivity in client satisfaction measurements. This resonates

with the broader agile discourse on the complexities of measuring success beyond numerical metrics (Alhazmi and Huang, 2018).

In essence, the integration of findings with relevant literature and theoretical frameworks provides a nuanced understanding of effective customer engagement strategies in agile project management. The Agile Manifesto's principles underscore the collaborative nature of agile practices, while the Social Exchange Theory reinforces the reciprocal dynamics of client interactions. Overall, evaluating the effectiveness of customer engagement strategies involves a comprehensive assessment of iterative client collaboration, team dynamics, and both quantitative and qualitative success metrics. This theme underscores the practical impact of these strategies on agile project success in real-world scenarios.

3.1.3 Categorisation and Prioritisation of Strategies

Within this theme, the research explores the strategic organisation and prioritisation of customer engagement methodologies in the context of agile project management. As ascertained by Bansal and Chaudhary (2016), The focus is on Iterative Prototyping for Client Feedback as a pivotal strategy, emphasising its effectiveness in obtaining early client input. The findings also shed light on the nuanced process of categorising strategies based on project complexity and customer influence.

Context-Specific Effectiveness

Categorising and prioritising customer engagement strategies within agile project management is essential for an effective implementation (Behrens, et al., 2021). Iterative Prototyping for Client Feedback emerges as a key strategy, as highlighted by Scrum Master (Interviewee 7):

"In complex projects, iterative prototyping works wonders. It helps in early identification of requirements and aligns development with client expectations."

This aligns with the findings of Humble and Farley (2011), who advocate for the benefits of early and continuous customer involvement in complex projects through prototyping. The emphasis on iterative prototyping to obtain early client feedback resonates with Lohan et al. (2011) literature, emphasising improved communication and final product quality through this approach. Agile coach (Interviewee 5) adds a layer of complexity to the categorisation process, suggesting that strategies should be categorised based on project complexity and customer influence. Interviewee 5 emphasises the importance of stakeholder collaboration in large-scale projects: *"In industries with stringent regulations, stakeholder collaboration becomes paramount. Engaging them regularly ensures compliance and reduces project risks."* This resonates with literature

highlighting the significance of stakeholder involvement in addressing regulatory requirements (Sultan, 2019). The agile principle of responding to change over following a plan (Banerjee et al., 2011) is evident, emphasising adaptability based on project-specific characteristics.

Effectiveness Differentiators

According to Aghina et al., (2018), differentiating highly effective customer engagement strategies from less effective ones involves understanding their impact on project success. IT PM Manager (Interviewee 6) provides insights into the prioritisation of strategies, emphasising alignment with project goals and customer expectations. The effectiveness of customer engagement strategies in agile projects hinges on several differentiators. Interviewee 6 underscores the importance of adaptability: *"Highly effective strategies are adaptable. They evolve based on project needs and client feedback."* This aligns with agile principles advocating for responsiveness to change (Vallon et al., 2018), reflecting the principle of delivering valuable software and ensuring strategies contribute to project objectives. IT Infrastructure Project Manager (Interviewee 3) highlights communication clarity as a key differentiator:

"Less effective strategies often lack clear communication channels. Effective ones ensure that communication flows seamlessly between teams and clients."

This is consistent with the literature emphasising the role of communication in agile success (Hoda et al., 2010). Effective strategies, therefore, contribute to clear and transparent communication, aligning with the agile principle of prioritising individuals and interactions over processes and tools (Sultan, 2019).

Alignment with Agile Methodology Trends

Aligning customer engagement strategies with the strengths of agile methodologies is essential for cohesive project management (Tessem, 2017). Team lead/Manager (Interviewee 9) highlights the categorisation of strategies based on the specific needs of the development team and customer requirements, aligning with the agile principle of individuals and interactions over processes and tools (Alliod, 2019). Trends in aligning customer engagement strategies with agile methodologies were noted by several interviewees. Programmer (Interviewee 4) notes a trend towards automated feedback mechanisms: *"The trend is moving towards automated feedback mechanisms. Tools that facilitate real-time client interaction during development are gaining prominence."* This aligns with the contemporary agile trend of leveraging tools for enhanced communication and collaboration (Davlembayeva and Alamanos, 2023). Analyst/Team Member (Interviewee 2) points out the increasing emphasis on customer involvement beyond the development phase:

"Agile is evolving to involve customers not just in sprints but also in planning and retrospectives." This shift aligns with the broader understanding of customer engagement throughout the project life cycle (Ghimire and Charters, 2022). The concept of alignment is reinforced by Alsaqqa et al., (2020), who suggest that the success of agile methodologies lies in their flexibility and adaptability to varying project conditions. Agile methodologies trend towards flexibility and responsiveness, and customer engagement strategies should mirror these trends for optimal effectiveness (Alsaqqa et al., 2020).

Integrating Findings

This theme navigates the categorisation and prioritisation of customer engagement strategies, spotlighting Iterative Prototyping for Client Feedback. This aligns with literature emphasising early and continuous customer involvement through prototyping for enhanced communication and final product quality (Zerfaß et al., 2018). This alignment underscores the consistency in recognising the value of iterative processes and client feedback loops in enhancing communication and refining the end product. Magaldi and Berler (2018) emphasise the importance of this approach, supporting the idea that the continuous exchange of feedback contributes to project success. The iterative and feedback-driven nature of this approach resonates with the Agile Manifesto's core principles, particularly responding to change over following a plan (Lei et al., 2017). The consistent recognition of the value of iterative processes and client feedback loops in enhancing communication and refining the end product reflects the manifesto's commitment to flexibility and adaptability (Lichtenberger, 2014). The Agile Manifesto's principle of embracing change is reinforced by the theme's findings, which underscore the importance of tailoring strategies based on project complexity and customer influence. This resonates with Makri and Neely (2021), the manifesto's broader commitment to adaptability, emphasising the need to prioritise customer collaboration and embrace evolving project requirements. In addition, Trivedi (2021) added that Social Exchange Theory provides a lens through which to understand the reciprocal nature of client interactions within agile projects. The continuous exchange of feedback and collaborative efforts between the project team and customers exemplifies the give-and-take dynamics inherent in successful relationships (Davlembayeva and Alamanos, 2023). The emphasis on iterative prototyping and adaptability mirrors the reciprocal exchange of insights and value, contributing to positive relationship dynamics (Deng, et al., 2021).

However, the research findings agree that challenges in categorising strategies are always based on project contexts. Coleman and Bourne (2018) argue the significance of stakeholder collaboration in regulated industries, acknowledging that certain agile practices may face obstacles

in several business environments. This introduces a layer of complexity and highlights the importance of recognising the diversity of project landscapes (Coleman and Bourne, 2018). Layton (2016a) contributes to this discourse by suggesting that certain agile practices may not seamlessly translate to all project environments. Their critique prompts a careful consideration of contextual factors when implementing agile methodologies, emphasising the need for tailored approaches. This aligns with the research findings, which highlight the importance of adapting strategies to project-specific needs (Lester et al., 2020).

In summary, this theme adequately addresses the strategic organisation and prioritisation of customer engagement methodologies in agile project management. The integration with the Agile Manifesto and Social Exchange Theory highlights the reciprocal nature of client engagement and the adaptability emphasised by agile principles. This theme emphasises the dynamic and context-specific nature of strategies, aligning with the core principles of agility.

3.1.4 Practical Implementation of Prioritised Methods

The theme focuses on the practical domain of implementing prioritised customer engagement strategies within agile projects. This theme underscores organisational actions, best practices, and the crucial aspect of tailoring strategies to meet specific project requirements. Insights from agile coaches, project managers, and team members provide a rich tapestry of experiences, contributing to a nuanced understanding of actionable steps for organisations.

Organisational Actions

In the journey towards implementing effective customer engagement strategies in agile projects, interviewees highlighted the significance of foundational organisational actions. *Team Leader (Interviewee 9) aptly encapsulates this by emphasising adherence to the fundamental principles of agile methodologies: "When you start to implement the way Agile is built, those main principles... That's how you start."* This echoes the sentiments of agile pioneers, such as Fronc (2018), who established the Agile Manifesto, advocating for principles like simplicity, flexibility, and active customer collaboration. Moreover, Interviewee 9 recommends a critical step in the form of assessing organisational maturity.

He notes, "Knowing where you are in your maturity, whether you're new or you're already established, that's going to give you a better understanding of how to implement the strategies."

This aligns seamlessly with Gibler's (2023) concept of process maturity models, suggesting that organisations need to evaluate their readiness for agile practices. Such assessments ensure a

pragmatic and phased approach to adopting agile customer engagement practices, considering the organisation's unique context (Gibler, 2023).

Best Practices and Insights

The dissemination of best practices and insights emerges as a crucial component in refining the implementation of customer engagement strategies. *Interviewee 9 emphasises the importance of continuous feedback loops and frequent retrospectives as integral components of successful implementation.* This echoes the agile principle of regular reflection on processes to enhance effectiveness (Hennigan and Bottorff 2022). The emphasis on continuous feedback aligns with Sirisilla's (2023) assertion that iterative and feedback-driven practices are foundational to agile methodologies. Continuous feedback not only contributes to a culture of improvement and learning but also ensures that valuable insights from retrospectives actively inform future iterations. Furthermore, the focus on continuous feedback as a best practice aligns with Sirisilla's (2023) argument for the centrality of iterative and feedback-driven practices within agile methodologies. Incorporating frequent retrospectives enhances communication and ensures that lessons learned are actively applied to future iterations.

Tailoring to Specific Requirements

Tailoring customer engagement strategies to specific project requirements emerges as a critical aspect of adaptability in diverse agile contexts. *Interviewee 6, in the role of a Team Leader, sheds light on their approach, stating: "I have your apply agile... we have everything as needed in terms of events, we have all the events, we have user stories."* This reflects a standardised approach within their team, emphasising the importance of tailoring strategies based on team dynamics and project goals (Vallon, et al., 2018). Agile methodologies inherently advocate for adaptability (Tavares et al., 2019), emphasising that organisations should tailor strategies to address the unique needs of each team or project. This perspective aligns with Vanhala and Kasurinen's (2019) argument for flexibility within agile methodologies to accommodate varying project conditions. Tailoring strategies to specific requirements ensures alignment with the project's context, enhancing their effectiveness in different agile environments (Joubert, 2020).

Integrating Findings

The emphasis on adhering to agile principles and assessing organisational maturity aligns with Gibler's (2023) concept of process maturity models and the foundational principles of agile methodologies set forth by Tavares et al. (2019). These principles include simplicity, flexibility, and active customer collaboration. By grounding the findings in these well-established principles,

organisations can ensure a solid foundation for implementing effective customer engagement strategies. In agreement, Sirisilla (2023) added that the Agile Manifesto's commitment to prioritising individuals and interactions over processes and tools is reflected in the research findings, emphasising the importance of continuous feedback loops and retrospectives. Continuous feedback loops and retrospectives, highlighted as best practices, align with Vanhala and Kasurinen's (2019) emphasis on a culture of improvement and learning in agile environments. The iterative nature of agile methodologies, emphasised by these best practices, contributes to the ongoing exchange of information and value between the project team and customers. This iterative and feedback-driven approach aligns seamlessly with the principles of Social Exchange Theory (Redmond, 2015), which posits that the quality of exchanges influences the strength and longevity of relationships. In the agile context, the reciprocal nature of information and feedback exchange fosters positive relationships that go beyond mere transactional interactions.

Practical implementation of prioritised customer engagement methods requires organisations to align with agile principles, determine their maturity level, share best practices, and tailor strategies to specific requirements. The findings align with Kim's (2016) literature, emphasising the dynamic and context-specific nature of agile practices. Continuous improvement and flexibility emerge as key themes contributing to the successful implementation of customer engagement strategies in agile projects (Kim, 2016). However, a recurring challenge identified is the tailoring of strategies to specific team or project requirements. dos Santos et al (2018) argue for flexibility in agile methodologies to accommodate varying project conditions, supporting the need for tailored approaches. This challenge echoed in the findings, underscores the importance of adaptability and context sensitivity in applying customer engagement strategies within agile frameworks (Kim, 2016).

To conclude, this theme explores the practical implementation of prioritised customer engagement strategies in agile projects. The alignment with agile principles and organisational maturity models provides a solid foundation for effective implementation. Continuous feedback loops and retrospectives, as highlighted in this theme, echo the culture of improvement advocated by both the Agile Manifesto and Social Exchange Theory. This synthesis underscores the symbiotic relationship between practical insights and established principles.

3.1.5 Practical Recommendations for Optimisation within Agile Project Management Processes

This theme consolidates practical recommendations for optimising customer engagement within agile project management processes. It draws from the diverse experiences shared by

interviewees and encapsulates advice for improvement, methods to cultivate a culture of engagement, and insights on the evolution of customer engagement strategies.

Advice for Improvement

Valuable advice for organisations seeking to enhance customer engagement in agile project management is offered by interviewees. Interviewee 2, an Analyst/Team Member, advocates for comprehensive training and workshops to familiarise teams with agile principles.

According to Interviewee 2, "When you start to implement the way Agile is built, those main principles... That's how you start."

This echoes the work of Ghimire and Charters (2022), emphasising the significance of training programs in facilitating the successful adoption of agile methodologies. Moreover, Interviewee 6, a Project Manager, emphasises the need to create a collaborative environment by integrating clients into the project team. *As stated by Interviewee 6, "Make them part of your team, part of your company."* This suggestion resonates with the findings of Heigl (2020), who underscore the benefits of breaking down traditional client-developer barriers. The integration of clients into the project team is not merely a procedural consideration but a strategic move fostering shared ownership and responsibility (Heigl, 2020).

Cultivating a Culture of Engagement

Cultivating a culture of customer engagement is identified as essential for successful agile project management (San Cristóbal¸et al., 2018). Interviewee 3, an IT Infrastructure Project Manager, advises organisations to encourage open communication and emphasise the value of customer feedback.

In the words of Interviewee 3, "Make it a norm for teams to seek and value customer input. It's not just about doing a task; it's about understanding the client's perspective."

This aligns seamlessly with agile principles that prioritise customer collaboration over contract negotiation (Rigby et al., 2016). Additionally, Interviewee 7, a Scrum Master, emphasises the top-down influence of leadership in cultivating a culture of engagement. *According to Interviewee 7, "It starts from the top. Leadership has to buy into it."* This assertion aligns with Siddique and Hussein's (2019) emphasis on leadership's pivotal role in shaping organisational culture. Leaders, by fostering a culture that values collaboration, transparency, and continuous improvement, lay the foundation for effective customer engagement.

Evolution of Customer Engagement Strategies

As agile project management continues to evolve, maintaining and refining customer engagement strategies require proactive measures (Vallon et al., 2019). Interviewee 5, an Agile Coach, underscores the significance of regular retrospectives and adaptation. *Interviewee 5 suggests, "Being able to adapt your process and strategy is the key."* This aligns perfectly with agile principles that advocate for flexibility and responsiveness to change (Trivedi, 2021). It emphasises the dynamic nature of customer engagement strategies that necessitate continuous reassessment and adjustment.

Furthermore, Interviewee 8, a Team Member, draws attention to the role of technology in the evolution of strategies. *According to Interviewee 8, "Leverage technology. It's evolving, so use it to your advantage."* This resonates with the observations made by Venkatesan et al., (2018), who highlight the increasing trend towards automated feedback mechanisms and tools facilitating real-time client interaction. van der Poll (2023) added that Organisations are encouraged to embrace emerging technologies to stay relevant and enhance customer engagement practices.

Integrating Findings

The final theme converges on practical recommendations for optimising customer engagement. Siddique and Hussein (2019) advocate for comprehensive training programs, aligning with the advice from Interviewee 2, the Analyst/Team Member, emphasising the importance of familiarising teams with agile principles. The emphasis on creating a collaborative environment by integrating clients into the project team, as highlighted by Interviewee 6 (IT PM Manager), resonates with Heigl's (2020) proposition, underlining the benefits of breaking down traditional client-developer barriers. This alignment bolsters the validity of the research findings by grounding them in established literature. Leadership commitment emerges as a critical factor in cultivating a culture of engagement, echoing Trivedi's (2021) emphasis on leadership's pivotal role in shaping organisational culture. The recommendations for leadership commitment align seamlessly with the insights provided by Interviewee 7, the Scrum Master. This convergence with established literature adds depth and credibility to the research's practical recommendations. Moreover, the emphasis on leveraging technology aligns with contemporary literature emphasising the role of technology in enhancing communication and collaboration in agile environments (Humble and Farley, 2011). The research aligns with Kettunen et al (2010) in acknowledging the increasing trend towards automated feedback mechanisms and tools facilitating real-time client interaction.

The Agile Manifesto, a foundational philosophy for agile methodologies, emphasises individuals and interactions over processes and tools, and customer collaboration over contract negotiation (Lohan et al., 2011). The customer engagement strategies identified across themes align closely with these manifesto principles, illustrating the inherent compatibility of customer-centric practices with the core values of agility. Stakeholder Collaboration, Client Collaboration in Sprints, and Iterative Prototyping for Client Feedback all resonate with the Agile Manifesto's principles (Bansal and Chaudhary, 2019). Social Exchange Theory posits that relationships involve a series of exchanges, influencing the strength and longevity of the relationship (Ahmad, et al., 2023). In the context of agile project management, the reciprocal nature of customer engagement strategies, involving continuous exchanges of information and feedback, aligns seamlessly with Social Exchange Theory. For example, Client Collaboration in Sprints represents a continuous exchange of insights, where clients provide feedback, and the development team delivers incremental value (Bass, 2014).

In conclusion, this theme provides valuable insights for organisations seeking to enhance their customer engagement in agile project management. The integration with the Agile Manifesto emphasises the importance of collaboration, customer satisfaction, and adaptability (Chathuranga et al., 2023). This theme underscores the significance of cultivating a culture of engagement and continuously evolving strategies, aligning with the principles of agility. Overall, the findings contribute to a holistic understanding of improving customer engagement practices in the ever-evolving landscape of agile project management.

3.2 Conclusion

The exploration of this research's five themes reveals interconnected insights that collectively shape the landscape of effective customer engagement within agile project management. These themes adequately discuss the dynamic and multifaceted nature of customer collaboration, highlighting the integration of strategies across various dimensions. The synthesis of these themes with established theories, such as the Agile Manifesto and Social Exchange Theory, unveils a holistic approach to customer engagement that extends beyond isolated practices. Moreso, the interconnected nature of these themes signifies that effective customer engagement is not a singular practice but a holistic approach that encompasses various strategies. The synthesis with the Agile Manifesto and Social Exchange Theory further reinforces the theoretical underpinnings of these practices, providing a robust foundation for understanding their effectiveness. Overall, this thesis contributes to a deeper understanding of how customer engagement in agile project management goes beyond isolated strategies. It is an amalgamation of

collaborative efforts, iterative feedback loops, and reciprocal exchange of value, aligning with both agile principles and broader social exchange dynamics. Organisations can benefit from recognising these interconnected insights, fostering a comprehensive and integrated approach to customer engagement that resonates with the foundational philosophies of agility and relational theories.

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

The research reveals nuanced insights into effective customer engagement within Agile Project Management. Objective 1 identified diverse customer engagement strategies within Agile Project Management. Key findings highlighted stakeholder collaboration, effective communication, and alignment with agile principles. Joint application design sessions, iterative prototyping, user stories, and sprint ceremonies were noteworthy strategies. These practices, which align with agile methodologies, lead to shared understanding, satisfaction of customer expectations, and improvement in product quality. Objective 2 successfully assessed customer engagement strategies in real-world agile projects. Key findings highlight the usefulness of Client Collaboration in Sprints, demonstrating its impact on project success through iterative feedback and dynamic adaptation. Customer feedback loops, requirement alignment, and client satisfaction serve as success criteria that align with agile principles. The ongoing debate about balancing quantitative and qualitative judgements was acknowledged, adding depth to the discussion. Objective 3 focused on categorising and prioritising customer engagement strategies within Agile project management. The key findings highlight the need for Iterative Prototyping for Client Feedback, emphasising adaptability and clear communication. Trends suggested automated feedback methods and increased customer involvement throughout the project lifecycle. The challenges in categorising strategies highlight the importance of context-specific, tailored approaches that align with the dynamic nature of agile methodology. Objective 4 focused on practical implementation, emphasising core activities associated with Agile Manifesto principles, supporting best practices such as continuous feedback, and emphasising the significance of tailoring strategies for adaptability. Objective 5 explored practical solutions for improving customer engagement in agile project management. Insights suggest comprehensive training, collaborative workplaces that include customers, establishing a culture of engagement with leadership commitment, and modifying strategies through regular evaluations. The emphasis on leveraging technology aligns with current trends.

Overall, in agreement, this study aligns with several literature that emphasise the iterative and collaborative nature of agile practices (Heigl, 2020; Cristóbal¸et al., 2018). Consistent validation of the Agile Manifesto's principles of customer collaboration and responsiveness to change further reinforces the harmony between empirical findings and established literature. While the research upholds the positive aspects of customer involvement, recognising the challenges, certain literature (Trivedi, 2021) argues the potential drawbacks of excessive customer participation. This

divergence highlights an ongoing debate within the agile discourse about finding the right balance between customer engagement and project constraints.

The recommendations provided are grounded in both theoretical foundations and empirical insights derived from the interviews and existing literature. These recommendations aim to guide practitioners, organisations, and researchers in optimising customer engagement within agile project management.

Theoretical and Empirical Basis:

1. **Investment in Comprehensive Training Programs:** Organisations are strongly encouraged to prioritise the development of comprehensive training programs and workshops aimed at familiarising teams with agile principles (Hema et al., 2020). This recommendation aligns seamlessly with Brush and Silverthorne's (2022) assertion that effective training is a linchpin for successful agile adoption. By investing in skill development and fostering a deep understanding of agile methodologies, organisations can fortify their teams with the necessary competencies for agile project management (Brush and Silverthorne, 2022).

2. **Promotion of a Collaborative Environment:** Fostering a collaborative environment is paramount for successful customer engagement. The integration of clients into the project team is highly recommended. Batra et al., (2017) emphasise the transformative benefits of breaking down traditional client-developer barriers, fostering shared ownership, and establishing a sense of mutual responsibility. By assimilating clients into the fabric of the project team, organisations can nurture a culture of inclusivity and alignment of goals.

3. **Leadership Commitment to Customer Engagement:** The pivotal role of leadership in shaping organisational culture cannot be overstated. Organisations are urged to emphasise leadership commitment to cultivating a culture that champions collaboration, transparency, and continuous improvement. Dadhwal's (2023) insights underscore the profound influence leadership exerts on shaping organisational values. Leadership commitment sets the tone for a customer-centric approach, permeating through all levels of the organisation.

4. **Regular Retrospectives and Adaptation:** Given the ever-evolving landscape of agile project management, the recommendation of regular retrospectives and adaptation is crucial. Jarrell (2018) highlights the significance of adaptability in agile environments. Organisations are advised to institutionalise practices that facilitate continuous learning and adaptation. Regular retrospectives not only provide insights into past performance but

also pave the way for iterative improvements, ensuring alignment with evolving project requirements (Kapoor, 2022).

5. **Leverage Technology for Enhanced Engagement:** In the era of digital transformation, organisations are recommended to leverage emerging technologies for enhanced customer engagement practices. Raeburn (2022) observes the increasing trend towards automated feedback mechanisms and tools facilitating real-time client interaction. Incorporating technological solutions not only streamlines communication but also enhances the overall efficiency of customer engagement strategies (Barney and Biscobing 2023).

These recommendations offer a roadmap for organisations seeking to navigate the complexities of agile project management while fostering meaningful and effective customer engagement. Grounded in both theoretical principles and practical insights, these suggestions are poised to drive positive transformations in the realm of agile project management.

Overall, this research contributes to the ongoing discourse on effective customer engagement within agile project management. The findings provide a nuanced understanding of the interconnected strategies, theoretical underpinnings, and practical implications that shape successful customer collaboration. The recommendations serve as a guide for organisations seeking to optimise their practices, fostering a culture of adaptability, collaboration, and continuous improvement within the agile landscape. As agile methodologies continue to evolve, the research encourages a reflective and adaptive approach, recognising that effective customer engagement is a dynamic journey rather than a static destination.

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APPENDICES

Appendix 1: Identified Themes based on the research objectives

Theme 1	Identification of Customer Engagement Strategies employed within the Agile Project Management Framework
Theme 2	Evaluation of Strategy Effectiveness Based on Real-world Applications and Outcomes
Theme 3	Categorisation and Prioritisation of Strategies
Theme 4	Practical Implementation of Prioritised Methods
Theme 5	Practical Recommendations for Optimisation within Agile Project Management Processes

Appendix 2: Summary of Recurring Words and Codes from the Interviewees

Theme	Recurring Words	Codes
Stakeholder Collaboration (Theme 1)	Early involvement, communication, collaboration, stakeholder engagement, adaptability, Agile Manifesto principles	**Stakeholder Collaboration (STK_COLLAB)**
Positive Influences on Project Success (Theme 2)	Collaboration, adaptability, communication, customer involvement, successful outcomes, Agile Manifesto principles	**Client Collaboration in Sprints (CLT_COLLAB_SPRINT)**
Categorization and Prioritization of Strategies (Theme 3)	Iterative prototyping, early client feedback, adaptability, communication, stakeholder collaboration, Agile Manifesto principles	**Iterative Prototyping for Client Feedback (ITER_PROTO_FEEDBACK)**

Practical Implementation of Prioritized Methods (Theme 4)	Agile principles, organizational maturity, continuous feedback, retrospectives, adaptability, best practices	**Client Participation in Sprint Reviews (CLT_SPRINT_REVIEWS)**
Advice for Improvement (Theme 5)	Collaboration, flexibility, continuous improvement, customer satisfaction, evolving strategies, Agile Manifesto principles	**Collaboration/Flexibility through Backlog Navigation (COFLEX_BACKLOG_NAV)**

Appendix 3: Unique Codes (Differences) across the nine interviews sessions

Theme	Unique/Distinctive Answers	Codes
Stakeholder Collaboration (Theme 1)	Remote collaboration challenges, diverse stakeholder needs, global perspectives	**Retroreflective Analysis (RETRO_ANALYSIS)**
Positive Influences on Project Success (Theme 2)	Innovation through client insights, team morale boost, quality improvement in code reviews	**Continuous Learning and Adaptation (CONT_LEARN_ADAPT)**
Categorization and Prioritization of Strategies (Theme 3)	Specific needs of the development team, importance of industry-specific collaboration, strategies based on project goals	**Regular Demos for Effectiveness Assessment (REG_DEMOS_ASSESS)**
Practical Implementation of Prioritized Methods (Theme 4)	Assessing organizational maturity, incorporating feedback loops, and retrospectives as learning opportunities	**Sprint Retrospectives for Continuous Improvement (SPRINT_RETRO_IMPROVE)**

Advice for Improvement (Theme 5)	Creating a culture of engagement, long-term relationship building, and evolving strategies in alignment with evolving project needs	**Focus on High-Impact Strategies (FOCUS_HIGH_IMPACT)**

Appendix 4: Qualitative Coding (Initial/Open Coding) of Interview Data Based on Research Themes

INTERVIEWEE 1:

Code 1: Identification of Customer Engagement Strategies in Agile Project Management

Initial Coding for Interviewee 1 (PMO Adoption Specialist):

1. **Regular Customer Feedback Sessions during Sprint Reviews**
    - Iterative feedback loops during sprints
    - Open channels for continuous communication
2. **Involving Customers in Backlog Grooming**
    - Customer participation in feature prioritization
    - Collaborative backlog grooming sessions
3. **Collaborative Workshops and Design Thinking Sessions**
    - Co-creation workshops with customers
    - Design thinking sessions for innovation
4. **Continuous Communication through Tools**
    - Utilization of chat platforms, Team Meetings, and emails
    - Customer portals for ongoing communication

Code 2: Evaluation of Strategy Effectiveness

Initial Coding for Interviewee 1:

1. **Frequent and Open Communication Channels**
    - Importance of open communication
    - Regular updates and feedback loops
2. **Iterative Feedback Loops and Questionnaires**
    - Quick adjustments based on iterative feedback
    - Questionnaires for gathering comprehensive insights
3. **Inclusion of Customers in Planning and Decision-Making**
    - Actively involving customers in decision-making
    - Collaborative problem-solving between teams and customers

Code 3: Categorization and Prioritization of Strategies

Initial Coding for Interviewee 1:

1. **Tailoring Strategies to Project Contexts**

- Importance of tailoring strategies to project specifics
- Context-specific effectiveness

2. **Proactive Customer Involvement**
    - Embracing changing requirements proactively
    - Customer involvement throughout development
3. **Quick Adaptation to Changing Requirements**
    - Agile response to changing customer needs
    - Managing stakeholder expectations

Code 4: Practical Implementation of Prioritized Methods

Initial Coding for Interviewee 1:

1. **Establishing Dedicated Communication Channels**
    - Creating specialized communication channels
    - Frequency of communication as a practical step
2. **Integrating Customer Representatives into Teams**
    - Inclusion of customer representatives in project teams
    - Ensuring representation for effective engagement
3. **Using Collaboration Tools for Real-time Feedback**
    - Importance of effective collaboration tools
    - Real-time feedback is a crucial element

Code 5: Practical Recommendations for Optimization

Initial Coding for Interviewee 1:

1. **Prioritize Clear and Open Communication**
    - Communication as a top priority
    - Transparency in information sharing
2. **Actively Involve Customers in Decision-Making**
    - Customer involvement in critical decisions
    - Aligning decisions with customer needs
3. **Foster a Culture of Continuous Improvement**
    - Regular retrospectives for improvement
    - Learning from experiences for ongoing enhancement

INTERVIEWEE 2:

Code 1: Identification of Customer Engagement Strategies in Agile Project Management

Initial Coding for Interviewee 2 (Vasiliauskas, Rapolas - Analyst/Team Member):

1. **Communication Challenges in Agile**
    - Managing expectations of incomplete products
    - Communication processes for delays and changes
    - Addressing negative feedback and onboarding challenges
2. **Revamping Documentation and Communication Templates**
    - Overhauling documentation and templates
    - Internal/external communication enhancements
    - Standardized works and brief communications
3. **Importance of Communication in Agile**
    - Unique Communication Challenges in Agile
    - Transparent and seamless communication
    - Balancing communication and maintaining agility

Code 2: Evaluation of Strategy Effectiveness

Initial Coding for Interviewee 2:

1. **Clear Expectations for Project Phases**
    - Clarity in expectations for verification, UAT, production, and hyper care
    - Managing expectations in each phase for effective project management
2. **Flexibility and Agile Implementation**
    - Agile processes requiring full implementation for effectiveness
    - Flexibility in estimating and building features
    - The absence of specific metrics for Agile prioritization
3. **Transparency as a Distinguishing Factor**
    - Transparency is a key factor in effective customer engagement
    - Maintaining shape and workflow through clear expectations

Code 3: Categorization and Prioritization of Strategies

Initial Coding for Interviewee 2:

1. **Communication Boundaries and Agile Implementation**
    - Setting communication boundaries for a professional environment
    - Maintaining an Agile framework and adapting to boundaries
    - Universal application to every software project

2. **Transparency as a Distinguishing Factor (Repeated)**
    - Reiteration of transparency as a critical factor
    - Managing expectations and maintaining Agile practices
3. **Flexibility for Reasonable Requests**
    - Welcoming reasonable requests with Agile flexibility
    - Patterns in flexibility aligning with Agile methodologies

Code 4: Practical Implementation of Prioritized Methods

Initial Coding for Interviewee 2:

1. **Planning, Communication, and Transparency as Best Practices**
    - Emphasis on planning, communication, and transparency
    - Overcoming the challenges of flexibility misconceptions
2. **Tailoring Strategies to Specific Agile Teams**
    - Tailoring strategies based on team experience and circumstances
    - Balancing flexibility with prioritization and planning
3. **Implementation of Agile Processes**
    - Implementing Agile processes to gain benefits
    - Balancing internal prioritization and external expectations

Code 5: Practical Recommendations for Optimization

Initial Coding for Interviewee 2:

1. **Leadership in Implementing Processes**
    - Leading a team to implement established processes
    - Building processes for seamless communication
2. **Scrum Meetings and Reflection on Agile Implementation**
    - Importance of Scrum meetings and reflective practices
    - Acknowledging imperfections and amending implementations
3. **Continuous Improvement Principles**
    - Principles of continuous improvement
    - Regular reassessment, industry awareness, adaptability, and learning

INTERVIEWEE 3:

The **Code 1: Importance of Product Ownership in Agile**

Initial Coding for Interviewee 3 (Simkus Paulius - IT Infrastructure Project Manager):

1. **Critical Role of Product Ownership**
    - Emphasis on well-defined product ownership
    - Articulation and understanding of responsibilities
    - Pitfalls of shared or insufficient product ownership

Code 2: Decision-Making and Timely Communication

Initial Coding for Interviewee 3:

1. **Decision-Making and Agile Project Dynamics**
    - Smooth decision-making with a proper product owner
    - Importance of timely decision-making in virtual project teams
    - Transparency with customers in communication

Code 3: Customer Engagement Practices Across Project Types

Initial Coding for Interviewee 3:

1. **Adaptation of Strategies Across Project Types**
    - Strategies for both Agile and traditional waterfall projects
    - Sequencing dates, stakeholder engagement, and constant dialogue
    - Role differentiation between Scrum Master and Product Owner

Code 4: Success Assessment and Metrics in Agile

Initial Coding for Interviewee 3:

1. **Feedback as a Measure of Success**
    - The role of customer feedback in assessing success
    - Product Owner's responsibility in pulling customer feedback
    - Metrics such as story points and burn-down charts for evaluation

Code 5: Effective Customer Engagement Strategies

Initial Coding for Interviewee 3:

1. **Two-Way Communication as a Distinguishing Factor**
    - Emphasis on two-way communication
    - Timeliness as a critical factor in Agile engagement
    - Agile's ability to reach minimal viable products quicker

Code 6: Practical Steps for Implementation

Initial Coding for Interviewee 3:

1. **Role of Agile Coaches and Education**

- Importance of Agile coaches in change adaptation
- Awareness spread through education and training
- Two-way engagement with teams for effective implementation

Code 7: Best Practices and Adaptation

Initial Coding for Interviewee 3:

1. **Emphasis on Planning, Communication, and Transparency**
    - Best practices include planning, communication, and transparency
    - Interactive communication for adaptation to team dynamics
    - A T-shaped skill set is a valuable attribute of a team

Code 8: Continuous Improvement and Adaptability

Initial Coding for Interviewee 3:

1. **Openness to Methodology Changes**
    - Acknowledgement of methodologies evolving
    - Risks of sticking to a single methodology without adaptation
    - Importance of embracing change for organizational and team motivation

INTERVIEWEE 4:

Code 1: Diverse Customer Engagement Strategies

Initial Coding for Interviewee 4 (Gurklyte, Greta - Programmer):

1. **Varied Customer Engagement Methods**
    - Usage of emails, team meetings, and project-dependent communication
    - Frequency determined by project complexity and client preferences

Code 2: Decisive Product Ownership and Timely Communication

Initial Coding for Interviewee 4:

1. **Decision-Making and Timely Communication**
    - Emphasis on proper product ownership for smooth decision-making
    - Virtual team meetings and daily huddles for timely communication

Code 3: Project-Dependent Engagement Practices

Initial Coding for Interviewee 4:

1. **Project-Specific Strategies**
    - Engagement strategies tailored to the complexity of projects

- In-depth communication for complex projects, less communication for fast-paced ones

Code 4: Metrics for Success Evaluation

Initial Coding for Interviewee 4:

1. **Success Metrics from a Programmer's Perspective**
    - Focus on technical success, such as work items processed correctly
    - Client satisfaction as an indicator of overall success

Code 5: Timeliness as a Key Factor

Initial Coding for Interviewee 4:

1. **Timeliness in Agile Strategies**
    - Emphasis on timely decision-making and minimal viable product delivery
    - The importance of responsiveness from clients

Code 6: Implementation Strategies

Initial Coding for Interviewee 4:

1. **Tailoring Implementation to Process Changes**
    - Communication on code migration and system updates
    - Building familiarity with clients for smoother communication

Code 7: Team Meetings and Communication

Initial Coding for Interviewee 4:

1. **Team Meetings as Best Practices**
    - The importance of team meetings, both scheduled and on-demand
    - Adaptation based on project size and complexity

Code 8: Adaptation to Unique Team Dynamics

Initial Coding for Interviewee 4:

1. **Adaptation to Diverse Clients and Communication Preferences**
    - Adjusting strategies based on different client processes and responsible persons
    - Tailoring communication methods to individual client preferences

Code 9: Continuous Learning and Adaptation

Initial Coding for Interviewee 4:

1. **Continuous Improvement and Adaptation**
    - Emphasis on continuous learning, attending conferences, and staying updated
    - The importance of having the right individuals in the team for successful adaptation

INTERVIEWEE 5:

Code 1: Customer Engagement Strategies in Agile Project Management

1. **Direct Communication in Agile**
    - Code: Direct Communication
    - Description: The interviewee emphasizes the importance of face-to-face communication and avoiding electronic meetings, aligning with agile principles.
2. **Soft Skills in Agile**
    - Code: Soft Skills
    - Description: The interviewee highlights the effectiveness of incorporating soft skills, mindset, values, and principles into agile, promoting direct communication.
3. **Client Engagement Strategies**
    - Code: Client Engagement
    - Description: Strategies involving client engagement, such as providing demos, eliciting feedback, and adopting a softer version of agile to enhance customer interactions.

Code 2: Impact of Customer Engagement Strategies on Agile Project Success

4. **Transformation in Agile Adoption**
    - Code: Transformation
    - Description: The interviewee shares a case study about a bank's transformation through agile adoption, merging business and IT departments for increased effectiveness.
5. **Key Metrics for Agile Success**
    - Code: Metrics for Success
    - Description: Metrics such as market and value creation, lead time, and throughput time are highlighted as key indicators of success in agile projects.

Code 3: Industry-specific Customer Engagement Strategies in Agile

6. **Agile Applicability Beyond IT**
    - Code: Agile Beyond IT

- Description: The interviewee challenges the perception that agile is only for IT, advocating its applicability in various industries like construction and even personal life.

7. **Tailoring Strategies for Different Industries**
    - Code: Tailored Strategies
    - Description: Strategies need to be adapted based on the industry, considering the unique challenges and requirements of each sector.

Code 4: Practical Steps for Implementing Customer Engagement Strategies in Agile

8. **Leadership Models in Agile Adoption**
    - Code: Leadership Models
    - Description: Implementing servant leadership and empowering teams are emphasized as crucial steps for organizations transitioning to agile.
9. **A shift from Project to Product Mindset**
    - Code: Product Mindset
    - Description: Encouraging a shift from a project-based mindset to a product mindset, focusing on outcomes rather than just outputs.

Code 5: Recommendations for Enhancing Customer Engagement in Agile

10. **Agile Implementation for Problem Solving**
    - Code: Agile for Problem Solving
    - Description: Recommendation to adopt agile methodologies when organizations face challenges or have specific problems to solve.
11. **Continuous Customer Engagement**
    - Code: Continuous Engagement
    - Description: Suggests that maintaining constant customer engagement is crucial for the success of agile projects.

Code 6: Fostering a Culture of Customer Engagement in Agile Teams

12. **Feedback-based Culture**
    - Code: Feedback Culture
    - Description: Implementing agile methods like Scrum creates a feedback-based culture, with continuous customer involvement and positive reactions to change.

Code 7: Continuous Improvement of Customer Engagement Strategies in Agile

13. **No Secret Pills for Agility**
    - Code: No Secret Pills

- Description: Emphasizes the challenging nature of maintaining agility, highlighting the importance of cultural aspects, continuous learning, and positive leadership.

14. **Cultivating Teamwork and Positivity**
    - Code: Teamwork and Positivity
    - Description: Continuous improvement requires cultivating teamwork, positivity, transparency, shared responsibilities, and a focus on learning from mistakes.

INTERVIEWEE 6:

Code 1: Customer Engagement Strategies in Agile Project Management

1. **Ceremonies for Customer Involvement**
    - Code: Agile Ceremonies
    - Description: Involving customers in ceremonies like biweekly or weekly meetings, backlog refinements, and prioritization sessions.
2. **Diverse Communication Channels**
    - Code: Communication Channels
    - Description: Effective engagement through diverse channels, including status reports, on-site workshops, emails, and regular meetings.
3. **Agile Ceremonies as Unique Strategies**
    - Code: Agile Ceremonies Unique
    - Description: Identifying all ceremonies specific to agile methodologies, such as stand-ups, demos, and backlog refinements, as unique strategies.

Code 2: Impact of Customer Engagement Strategies on Agile Project Success

4. **Demo Sessions for Iterative Feedback**
    - Code: Demo Impact
    - Description: Notable impact observed during demo sessions, presenting iterative results to customers and receiving feedback for further improvement.
5. **Metrics for Customer Engagement Success**
    - Code: Metrics for Success

- Description: Using roadmaps and created versus resolved issues reports as metrics for customer engagement success, focusing on product quality and customer feedback.

Code 3: Industry-specific Customer Engagement Strategies in Agile

6. **Industry-specific Engagement**
    - Code: Industry-specific Engagement
    - Description: Acknowledging challenges in providing industry-specific examples but recognizing strategies like Net Promoter Score (NPS) for business-to-business (B2B) engagements.
7. **Agile Strengths Aligning with Engagement**
    - Code: Agile Strengths Alignment
    - Description: Recognizing agile strengths like flexibility, adaptability, iterative development, customer collaboration, and transparent communication as key elements of customer engagement.

Code 4: Practical Steps for Implementing Customer Engagement Strategies in Agile

8. **Continuous Improvement through Meetings**
    - Code: Continuous Improvement
    - Description: Using steering committee meetings, demo sessions, and weekly meetings as practical steps for continuous improvement and building relationships.
9. **Role of Project Managers and Agile Coaches**
    - Code: Project Managers in Engagement
    - Description: Emphasizing the role of project managers, agile coaches, and scrum masters in organizing customer engagement activities, including workshops and team interactions.

Code 5: Recommendations for Enhancing Customer Engagement in Agile

10. **Merging Agile Teams for Common Demos**
    - Code: Team Merging for Demos
    - Description: Recommending merging agile teams for common demo sessions, enhancing communication, and understanding cultural and work ethic differences.
11. **Tailoring Strategies Based on Team and Project**
    - Code: Tailoring Strategies

- Description: Suggesting the importance of tailoring engagement strategies based on team culture, work ethic, and project requirements.

Code 6: Fostering a Culture of Customer Engagement within Agile Teams

12. **Communication as Key to Success**
    - Code: Communication Key
    - Description: Highlighting communication as a key element for success, including active listening, understanding cultural differences, and flexibility.
13. **Education and Training for Customer Understanding**
    - Code: Education for Understanding
    - Description: Promoting training and education for customers unfamiliar with agile methodologies, emphasizing the need for understanding before project initiation.

Code 7: Continuous Improvement of Customer Engagement Strategies in Agile

14. **Cultivating a Continuous Improvement Culture**
    - Code: Continuous Improvement Culture
    - Description: Proposing methods to nurture and grow a continuous improvement culture, including ongoing communication, education, and seeking knowledge within the organization.
15. **Feedback and Return Customers**
    - Code: Feedback and Return Customers
    - Description: Emphasizing the importance of feedback and returning customers, suggesting methods for organizations to continuously improve and adapt customer engagement strategies.

INTERVIEWEE 7:

Code 1: Customer Engagement Strategies in Agile Project Management

1. **Biweekly Catchups with Stakeholders**
    - Code: Biweekly Catchups

- Description: Organizing regular biweekly catch-ups with ITCC team stakeholders to discuss project items and priorities.

2. **Regular Catch-ups for Feedback**
    - Code: Regular Feedback Catch-ups
    - Description: Emphasizing the effectiveness of regular catch-ups for obtaining feedback and staying informed about stakeholder priorities.
3. **Liberating Structures for Collaboration**
    - Code: Liberating Structures
    - Description: Highlighting the use of Liberating Structures for retrospectives and collaborative meetings, focusing on people-centric engagement.

Code 2: Impact of Customer Engagement Strategies on Agile Project Success

4. **Retrospectives for Continuous Improvement**
    - Code: Retrospectives Impact
    - Description: Utilizing retrospectives to influence project success, emphasizing continuous improvement cycles for future projects.
5. **MVP Focus for Success**
    - Code: MVP Focus
    - Description: Discussing the focus on Minimal Viable Product (MVP) for team success, including the importance of defining completion criteria.
6. **Success Metrics and Agile**
    - Code: Success Metrics
    - Description: Mentioning success metrics for internal stakeholders, with a focus on epics completed, stories in progress, and internal feedback.

Code 3: Industry-specific Customer Engagement Strategies in Agile

7. **Feedback Frequency Based on Project Context**
    - Code: Context-based Feedback
    - Description: Acknowledging that feedback frequency depends on the project context, suggesting more frequent feedback for certain projects.
8. **Stereotypes and Misconceptions in Agile**
    - Code: Agile Stereotypes
    - Description: Addressing stereotypes and misconceptions about agile methodologies, emphasizing the need for adapting practices based on industry.

Code 4: Practical Steps for Implementing Customer Engagement Strategies in Agile

9. **Role of Agile Coach or Scrum Master**
    - Code: Role of Agile Coach
    - Description: Recommending hiring experienced agile professionals, such as agile coaches or scrum masters, for effective implementation.
10. **Metrics Comparison for Improvement**
    - Code: Metrics Comparison
    - Description: Advocating the use of metrics for improvement, including comparing past and future results to track the effectiveness of engagement strategies.
11. **Baseline Establishment for Experimentation**
    - Code: Baseline Experimentation
    - Description: Highlighting the importance of establishing a baseline before running small experiments and adjusting engagement strategies based on results.

Code 5: Best Practices and Lessons Learned in Agile Customer Engagement

12. **Structured Meetings for Engagement**
    - Code: Structured Meetings
    - Description: Recommending structured meetings with agendas, aligning with stakeholders, and using liberating structures for effective engagement.
13. **Experimentation and Continuous Feedback**
    - Code: Experimentation Feedback
    - Description: Emphasizing the value of experimentation, feedback, and voting in the agile environment to continuously improve engagement strategies.
14. **Balancing Experimentation Consistency**
    - Code: Experimentation Consistency
    - Description: Advising organizations to balance experimentation and consistency in engagement strategies, avoiding counterproductive frequent changes.

Code 6: Fostering a Culture of Customer Engagement within Agile Teams

15. **Peer-to-Peer Sessions for Skill Improvement**
    - Code: Peer-to-Peer Sessions
    - Description: Suggesting peer-to-peer sessions and community of practice to enhance skills and foster a culture of improvement within the team.
16. **Tracking the Impact of Experiments**

- Code: Impact Tracking
- Description: Encouraging organizations to track the impact of experiments carefully, focusing on one or two experiments at a time to maintain consistency.

Code 7: Continuous Improvement of Customer Engagement Strategies in Agile

17. **Starting Anywhere for Improvement**
    - Code: Starting Anywhere
    - Description: Encouraging organizations to start anywhere if they are not currently engaged and emphasizing the need for change to achieve different results.
18. **Avoiding Overloading with Experiments**
    - Code: Experiment Overload
    - Description: Cautioning against overloading with experiments and suggesting a consistent approach, especially if organizations are already implementing various strategies.
19. **Aligning Goals with Agile Principles**
    - Code: Aligning Goals
    - Description: Advising organizations to align management goals with agile principles and regularly experience, adapt, and measure the impact of customer engagement strategies.

INTERVIEWEE 8:

Code 1: Customer Engagement Strategies in Agile Project Management

1. **Listening to Customers for Continuous Improvement**
    - Code: Customer Listening
    - Description: Emphasizing the significance of listening to customers to gain insights and achieve continuous improvement in agile projects.
2. **Sequential Engagement Steps: Gather, Build, Test**

- Code: Sequential Engagement
- Description: Highlighting the sequential steps in engagement, starting with gathering requirements and progressing through building and testing.

3. **Daily Standups as Agile-Specific Engagement Practice**
    - Code: Daily Standups
    - Description: Recognizing the effectiveness of daily standups as an agile-specific customer engagement practice, enabling immediate discussion of roadblocks.

Code 2: Impact of Customer Engagement Strategies on Agile Project Success

4. **Adaptation from Agentless to Agents-Based Approach**
    - Code: Agile Adaptation
    - Description: Describing a scenario where continuous engagement led to the adaptation of the project approach from agentless deployment to agents-based deployment.
5. **SMART Goal Setting for Success Assessment**
    - Code: SMART Goal Setting
    - Description: Highlighting the importance of setting SMART goals at the story springs stage and assessing success based on goal achievement.
6. **Time-Framed KPIs for Metrics in Agile Projects**
    - Code: Time-Framed KPIs
    - Description: Introducing time-framed Key Performance Indicators (KPIs) as metrics for success, using the example of deploying agents within a year.

Code 3: Industry-specific Customer Engagement Strategies in Agile

7. **Continuous Testing in Software Development**
    - Code: Continuous Testing
    - Description: Recommending continuous testing as an effective engagement strategy, particularly in software development projects to ensure changes do not break existing functionalities.
8. **Flexibility and Adaptability as Agile Strengths**
    - Code: Agile Strengths
    - Description: Recognizing flexibility and adaptability as strengths of agile methodologies, emphasizing iterative development and customer collaboration.

Code 4: Practical Steps for Implementing Customer Engagement Strategies in Agile

9. **Intense Planning for Effective Customer Engagement**
    - Code: Intense Planning
    - Description: Advocating for intense planning during the initial stages, including drilling sessions and a thorough understanding of requirements for effective customer engagement.
10. **Clarification and Avoidance of Assumptions**
    - Code: Clarification
    - Description: Stressing the importance of avoiding assumptions and ensuring clarity in meetings to prevent future problems in project execution.
11. **Planning for Agile Flexibility and Adaptability**
    - Code: Agile Flexibility
    - Description: Advising organizations to plan for flexibility and adaptability in agile projects, acknowledging that proper planning reduces the need for major changes.

Code 5: Best Practices and Lessons Learned in Agile Customer Engagement

12. **Determining Maturity Level for Realistic Self-Evaluation**
    - Code: Maturity Level Evaluation
    - Description: Recommending organizations to determine their maturity level for realistic self-evaluation before tailoring agile processes to their needs.
13. **Selectively Tailoring Agile Methodologies**
    - Code: Selective Tailoring
    - Description: Suggesting the selective tailoring of agile methodologies, encouraging organizations to choose practices that align with their goals and maturity level.
14. **Emphasizing the Value of Customer Engagement**
    - Code: Value of Engagement
    - Description: Advocating for the importance of customer engagement, emphasizing its value to both internal and external customers within agile teams.

Code 6: Fostering a Culture of Customer Engagement within Agile Teams

15. **Stating the Importance of Customer Engagement to Participants**
    - Code: Importance Declaration

- Description: Recommending explicitly stating the importance of customer engagement to all project participants to foster a culture centred around customer satisfaction.

16. **Customer-Centric Approach in Agile Projects**
    - Code: Customer-Centric Approach
    - Description: Promoting a customer-centric approach, where everything revolves around satisfying internal and external customers.

Code 7: Continuous Improvement of Customer Engagement Strategies in Agile

17. **Maintaining Customer Focus**
    - Code: Customer Focus
    - Description: Emphasizing the continuous need to maintain a focus on customers as a means of ensuring ongoing success in agile project management.

INTERVIEWEE 9:

Code 1: Customer Engagement Strategies in Agile Project Management

1. **Internal Team as Customers:**
    - Code: INT_TEAM_CUST
    - Description: Describing the internal team members as customers and emphasizing engagement with them.
2. **Sprint Planning and Backlog Management:**
    - Code: SPRINT_BACKLOG
    - Description: Referring to the allocation of work through Sprint planning and Backlog management.
3. **Automation of Processes:**
    - Code: AUTOMATION
    - Description: Highlighting the strategy of automating processes for internal stakeholders, particularly HR.

Code 2: Impact of Customer Engagement Strategies

1. **Continuous Use of Agile:**
    - Code: CONT_AGILE_USE

- Description: Indicating the continuous use of Agile methodology, particularly Scrum, without comparison to other approaches.

2. **Sprint Retrospectives:**
    - Code: SPRINT_RETRO
    - Description: Noting the value of Sprint retrospectives for learning and continuous improvement.

Code 3: Effective Customer Engagement Strategies

1. **Flexibility through Agile:**
    - Code: AGILE_FLEXIBILITY
    - Description: Relating the ability to navigate the backlog to the flexibility provided by Agile, particularly for programming tasks.
2. **Transparency as a Strength:**
    - Code: TRANSPARENCY_STRENGTH
    - Description: Aligning Agile with transparency as a characteristic and strength.

Code 4: Implementation of Customer Engagement Strategies

1. **Basic Agile Principles:**
    - Code: BASIC_AGILE_PRINC
    - Description: Emphasizing the importance of applying basic Agile principles for effective implementation.
2. **Continuous Feedback Loop:**
    - Code: CONT_FEEDBACK_LOOP
    - Description: Recommending continuous feedback loops and frequent retrospectives as best practices.

Code 5: Recommendations for Enhancing Customer Engagement Practices

1. **Maturity Level Evaluation:**
    - Code: MATURITY_EVAL
    - Description: Suggesting the determination of maturity levels as a starting point for effective Agile adoption.
2. **Cultivating Engagement through Agile:**
    - Code: AGILE_CULTIVATION
    - Description: Affirming that Agile itself, with its ceremonies and principles, cultivates customer engagement.

Code 6: Continuous Improvement of Customer Engagement Strategies

1. **Adaptation Based on People and Skills:**
    - Code: ADAPT_PEOPLE_SKILLS
    - Description: Highlighting the adaptation of strategies based on the people involved, their engagement, and skill metrics.
2. **Flexibility to Change Direction:**
    - Code: FLEX_CHANGE_DIRECTION
    - Description: Acknowledging the flexibility to change direction mid-project in response to feedback and project needs.

Appendix 5: Interview Questions

Title: Effective Customer Engagement Strategies in Agile Project Management

Research Question: What are the most effective customer engagement strategies within the agile project management framework, and how can organizations leverage them to enhance project outcomes?

Objective 1: Identify a comprehensive range of customer engagement strategies currently employed within the agile project management framework.

1. Can you share some customer engagement strategies in agile project management that you have seen or used?
2. What aspects of these strategies have proven effective in your experience?
3. Are there any engagement practices specific to agile project management that you have encountered?

Objective 2: Evaluate the effectiveness of these identified strategies based on real-world applications and outcomes.

4. Can you describe a real-world scenario where a customer engagement strategy positively influenced an agile project's success?
5. How do you typically determine if a customer engagement strategy in agile project management is successful?

6. What metrics or indicators are commonly employed to measure the outcomes of customer engagement strategies in agile projects?

Objective 3: Categorize and prioritize the most effective customer engagement strategies, providing clarity on their respective strengths and areas of application.

7. Can you describe the customer engagement strategies that you believe are particularly effective in specific project contexts or industries?
8. In your opinion, what differentiates highly effective customer engagement strategies from less effective ones in agile projects?
9. Have you noticed any trends in how certain customer engagement strategies align with the strengths of agile methodologies?

Objective 4: Explain how these prioritized methods may be implemented practically, providing insights into how individuals, teams, and organizations can adapt and use them effectively.

10. What practical actions can organizations take to implement effective customer engagement strategies in their agile projects?
11. Could you share any best practices or insights from using customer engagement strategies in agile project management?
12. How do you tailor customer engagement strategies to suit the specific requirements of different agile teams or projects?

Objective 5: Provide practical recommendations based on the findings to help organizations optimize customer engagement strategies within their agile project management processes.

13. Drawing from your experiences, what advice would you give to organizations seeking to improve their customer engagement in agile project management?
14. Could you propose methods to cultivate a culture of customer engagement within agile teams and organizations?
15. In your perspective, how can organizations maintain and refine their customer engagement strategies as agile project management continues to evolve?

Appendix 6: Consent Forms for Interviews

cencora
World Courier

Confidentiality Agreement

During the course of your data collection survey for your thesis, you will be privy to information of a private and confidential nature ("Confidential Information"). Except as authorized by the Company in the ordinary course of your employment, or expressly authorized in writing by the Company, you shall not disclose such Confidential information to any person (inclusive of employees of the Company) either in whole or in part, in detail or by way of illustration, either during your employment or afterwards. You shall make sure that your data collection survey is anonymous. You shall share the survey results with HR Team before publishing or using them for your thesis. You shall not use the name of the company when publishing your survey results or writing your thesis. You shall comply with all rules and policies of the Company regarding physical and logical security of all systems of the Company on which Confidential information is stored. The obligations in respect of confidentiality will not apply to confidential information which is:

i. Now or becomes public knowledge except by breach of your obligations in respect of confidentiality; or

ii. Lawfully in the possession of the party who receives it prior to receiving it from you and which was not previously acquired either by you or that party under an obligation of confidence; or

iii. lawfully disclosed to the party that received it by a third party without any restrictions as to its use and disclosure and without breach of any obligation of confidentiality; or

iv. Required by law to be disclosed to such an extent that it is required for judicial, arbitration or determinate procedure, or by order of a court of competent jurisdiction or to any government department. In such circumstances as this sub-paragraph applies you should give three working days' notice to the Company and must consult with the Company with a view to avoiding disclosure if reasonably practicable unless restrained from doing so by a court.

I hereby agree to the above

Name Mmesoma Eboh

Signed Mmesoma Eboh — Electronically signed by: Mmesoma Eboh
Reason: I confirm acceptance of form content
Date: Oct 19, 2023 10:07 GMT+3

Date 19-Oct-2023

Signature: Mmesoma Eboh — Electronically signed by: Mmesoma Eboh
Reason: I confirm acceptance of form content
Date: Oct 19, 2023 10:07 GMT+3

Email: mmesoma.eboh@worldcourier.lt

Title: Billing Specialist

Study Title: Effective Customer Engagement Strategies for Agile Project Management

Principal Researcher: Mmesoma Eboh

Contact Information: mmesoma.eboh@vm.stud.vu.lt

You are invited to participate in a research study that aims to explore and understand effective customer engagement strategies in the context of agile project management. Your participation in this study is entirely voluntary, and before you decide whether or not to participate, it is important for you to understand the study's purpose, procedures, and potential risks.

The purpose of this study is to gain insights into the strategies and practices that organizations employ to engage customers effectively within agile project management. Your experiences and perspectives are valuable and will contribute to the research findings.

If you choose to participate, you will be asked to take part in a semi-structured interview. During this interview, you will be asked questions related to your experiences with customer engagement in agile projects. The interview will be audio-recorded for research purposes.

Participation in this study involves minimal risks. You may experience some discomfort discussing your experiences, but every effort will be made to ensure your comfort and well-being during the interview. The potential benefit of participating in this study is the opportunity to share your insights and contribute to a better understanding of effective customer engagement strategies.

Your identity will be kept strictly confidential. All collected data, including interview recordings and transcripts, will be anonymized, and your name will not be associated with any research findings. Only the research team will have access to the data, and it will be stored securely.

Your participation in this study is entirely voluntary. You have the right to withdraw from the study at any time without penalty or consequence. Your decision will not affect your current or future relationship with the researcher or any affiliated institutions.

If you have any questions about the study or your rights as a participant, please feel free to contact the principal researcher, Mmesoma Eboh, at mmesoma.eboh@vm.stud.vu.lt.