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The Impact of Employee Engagement on Agile Software Development During Investment Banks' Digital Overhaul

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Abstract

Purpose: This study aimed to investigate the influence of employee-related characteristics, specifically engagement and performance, on the adoption of agile software development during digital transformation in investment banks. The study sought to evaluate the influence of these elements on the efficacy of agile approaches and the overall results of digital transformation.

Design/methodology/approach: This study utilized a mixed-methods approach, integrating quantitative data from a survey of 400 employees engaged in digital transformation initiatives and qualitative insights from interviews with 20 subject matter experts. Structural Equation Modeling (SEM) was employed to examine the interrelations among employee performance, agile framework implementation, leadership, and customer happiness.

Findings: The research indicated that employee performance and engagement substantially impact the effectiveness of agile software development and digital transformation initiatives in investment banks. Furthermore, leadership and customer satisfaction surfaced as significant mediators in these processes, underscoring the necessity for a customer-centric and leadership-oriented approach.

Practical implications: Investment banks can augment their digital transformation efficacy by prioritizing employee engagement and performance enhancement, promoting cross-functional collaboration, and cultivating leadership competencies. These tactics will facilitate the effective implementation of agile methodologies, resulting in enhanced customer satisfaction and operational efficiency.

Social implications: The study indicates that by prioritizing employee engagement and customer satisfaction, investment banks may foster a more inclusive and collaborative work culture, thereby improving employee well-being and customer experience amid technological transitions.

Originality/value: This study enhances the current literature by analyzing the direct and indirect effects of employee-related factors on digital transformation in investment banking, providing significant insights for both academic researchers and industry professionals regarding the optimization of agile software development practices in a highly regulated, rapid environment.

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Keywords:
Agile Software Development, Employee Engagement, Digital Transformation, Investment Banks, Leadership Roles, Customer Satisfaction, Agile Methodologies.

Introduction

In the dynamic realm of investment banking, digital transformation has evolved as a crucial tool for maintaining competitiveness. However, an efficient adaption of digital transformation demands adaptability, enhanced collaboration, and accelerated innovation. Hence, for a successful adoption of digital transformation, agile software development has emerged as an essential factor, as it prioritizes adaptability, cooperation, and continuous feedback, which are vital in responding to the rapidly evolving financial landscape. However, to ensure the success of agile methodologies, firms must cultivate a workforce that is not only proficient but also highly engaged. Engaged employees play a critical role in driving both the quality and efficiency of software solutions. This is especially true for investment banks, where the high-pressure environment demands personnel who are motivated, innovative, and dedicated to delivering high-quality outcomes. Therefore, improving employee engagement has become a central priority for employers and managers, as it directly influences an organization's agility, adaptability, and overall success (Wiraeus & Creelman, 2019). Encouraging collaboration across various teams is key to fostering innovation in financial technology. Agile development thrives on cross-functional teamwork, which becomes particularly essential during a bank's digital transformation. The intricate nature of financial systems requires close cooperation between IT teams, risk management, compliance departments, and business units to successfully implement agile practices (Aliyev, 2024).

The financial industry, namely investment banking, is currently experiencing a substantial transition towards digitalized processes, motivated by the necessity to maintain competitiveness, enhance operational effectiveness, and fulfil changing consumer demands. Agile software development in the financial sector denotes a flexible and iterative methodology for software creation, aimed at improving responsiveness to evolving market demands and regulatory obligations. It highlights brief development cycles, referred to as sprints, which facilitate ongoing feedback, swift modifications, and inter-team communication. This methodology is essential for investment banks to provide prompt, high-caliber digital solutions while navigating intricate financial systems, risk, and compliance requirements. Agile approaches emphasize flexibility, rendering them crucial in the dynamic and ever-changing financial environment (Ogundipe et al., 2024). Agile software development within investment banking is exemplified by ING's transition to an agile operating model throughout its whole organization. This transition led to expedited product launches, elevated customer satisfaction, and increased employee involvement. ING reorganized its teams into tribes and squads, enhancing collaboration and agility. Utilizing this agile structure, ING consistently enhanced its digital services, including mobile banking functionalities, informed by real-time client input (BCG Global). This transition enhanced the velocity and quality of software development while fostering a more adaptable and flexible work environment, more suited to address the difficulties of contemporary banking. The bank's emphasis on employee involvement, facilitated by cross-functional teams and empowerment, was crucial in fostering creativity and success during its digital transformation (Jaramillo & Richardson, 2016).

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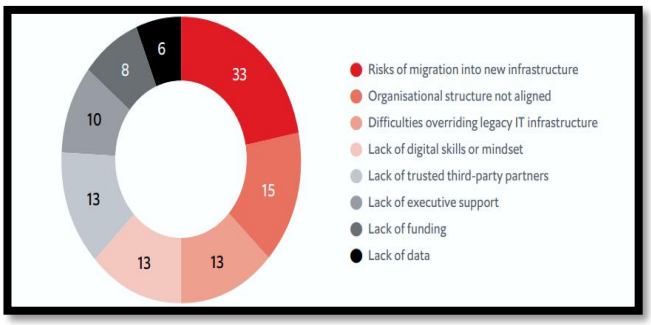

Figure 1. Barriers for digitalisation in financial services companies
(Source: Economist Impact 2020)

Investment banks consistently encounter distinct obstacles, including intricate legacy systems, regulatory obligations, and the necessity for immediate decision-making. These issues necessitate a workforce that is both flexible and actively engaged in the process of transformation (Trenerry et al., 2021). Engaged employees are more inclined to accept and adopt change, provide creative solutions, and work together efficiently in agile teams (Lukić et al., 2024; Alqudah & Razali, 2018).

The crucial significance of employee involvement in the effective execution of agile software development during digital transitions in investment banks. According to Robertson and LapiŇa (2021), the implementation of digital transformations requires a change in quality management techniques. This change includes the use of agile approaches, which are greatly impacted by employee involvement. According to Tayal et al. (2018), transformational leadership has a significant role in improving employees' willingness to embrace change, with engagement acting as a key intermediator. Their research demonstrates that astute leadership and the strategic utilization of information technology can enhance employee involvement and enable the implementation of cutting-edge methodologies such as agile software development. These findings collectively indicate that both employee engagement and leadership play a crucial role in facilitating effective digital revolutions in investment banks.
Therefore, the aim of this study is to examine the influence of employee-related qualities, namely engagement, on the acceptance and efficiency of agile software development during digital transformations in investment banks.

Objectives And Methodology

Objective: "To understand the role of employees and employees related factors in the use of agile software development methodology in the digital transformation of an investment bank."

Hypothesis: "Employee related factors has a positive impact on the use of agile software development methodology in digital transformation of an investment bank."
The study employed a descriptive and exploratory methodology to examine the influence of employee-related factors on the adoption of agile software development practices amid the digital transformation of investment banks. A mixed-method approach, integrating both quantitative and qualitative data collection, was employed to achieve a thorough grasp of the subject. Quantitative data were collected via a standardized survey questionnaire administered to a sample of 400 personnel engaged in digital transformation projects inside investment banks. The survey examined employee performance, leadership positions, agile technique adoption, and customer happiness as independent variables, with digital transformation as the dependent

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variable. Furthermore, qualitative data were obtained via comprehensive interviews with 20 subject matter experts (SMEs) to acquire deeper understanding of the difficulties and possibilities associated with employee engagement and leadership in agile software development.

ADANCO software was utilized for data analysis to conduct Structural Equation Modeling (SEM), facilitating the examination of hypotheses through the assessment of correlations between independent and dependent variables. The investigation revealed both direct and indirect impacts of personnel-related aspects on digital transformation, emphasizing the critical influence of employee performance and leadership on agile approaches. Descriptive statistics analyzed demographic data, while reliability and validity assessments (Cronbach's Alpha and Dijkstra-Henseler's Rho) were performed to verify the constructs' consistency and accuracy. The qualitative data obtained from SME interviews underwent thematic analysis, revealing recurring themes such as the significance of cross-functional collaboration and leadership in agile implementation. The research approach, underpinned by quantitative and qualitative data, yielded significant insights into the principal variables facilitating successful digital transformation in the investment banking sector.

Results

Descriptive Analysis: The survey participants were predominantly male, at 63.2% of the total. Females accounted for 31.6% of the respondents, while 5.3% choose not to reveal their gender. Regarding educational credentials, the main proportion of participants possessed a Master's degree (58.9%), followed by individuals with a Bachelor's degree (37.5%), and 3.6% were classified as "Other". The majority of participants (53.6%) fell within the age range of 30 to 40 years, with 22.2% falling between 40 and 50 years, and 14.3% falling between 20 and 30 years. The distribution of responsibilities inside their businesses was as follows: 17.9% were Project Managers, 16.1% were Application Developers, and 16.1% were in Senior Management. Other positions such as Scrum Masters, Engineering Leads, and Product Owners were more evenly spread out. Furthermore, 35.7% of the respondents were employed in firms with less than 1,000 employees, while 23.2% were affiliated with companies that employed between 1,000 and 10,000 employees.

The survey comprised 400 participants from several investment banks engaged in digital transformation initiatives. Demographically, almost 95% of the participants possessed at least a bachelor's degree, and individuals aged 30-40 constituted more than half of the sample. About one-third of the participants were female, guaranteeing gender diversity. The participants occupied positions including software developers, project managers, and senior leadership, providing diverse viewpoints on agile software development and employee engagement.

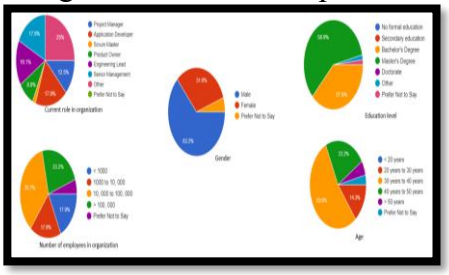

Figure 2. Demographic Profile of Respondents

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Reliability and Validity of Constructs

The constructs' reliability was assessed using Cronbach's Alpha and Dijkstra-Henseler's Rho, both surpassing the acceptable level of 0.7 for most variables, signifying robust internal consistency. The sole exception was the construct for the Agile Framework, which received a little lower score but was anticipated to surpass the criteria with an increased sample size. Convergent validity metrics were assessed, revealing that most constructs exhibited a high level of validity, hence reinforcing the robustness of the measurement approach.

Table 1. Cronbach's Alpha, Dijkstra-Henseler's Rho, Composite Reliability Coefficient

Construct Reliability			
Construct	Dijkstra Henseler's rho (ρ)	Jöreskorgs rho (ρc)	Cronbach's Alpha (α)
EP	0.7444	0.8356	0.7119
AF	0.7579	0.7631	0.6709
LR	0.9066	0.9048	0.8729
CS	0.8885	0.8913	0.8512
DT	0.8409	0.8926	0.8395

Table 2. Convergent Validity

Convergent Validity	
Construct	**Average Variance Extracted (AVE)**
EP	0.6302
AF	0.4
LR	0.6217
CS	0.5888
DT	0.6754

Structural Equation Modelling (SEM) Results

The SEM analysis indicated substantial direct effects between Employee Performance (EP) and other variables. Employee performance favourably impacted both the Agile Framework (AF) and Leadership (LR), with path coefficients of 0.65 and 0.71, respectively. This suggested that high-performing personnel correlated with more efficient agile approaches and robust leadership in digital transformation initiatives. The direct influence of staff performance on Customer Satisfaction (CS) was significant, evidenced by a path coefficient of 0.68, indicating that increased employee engagement resulted in enhanced customer outcomes.

Indirect Effects on Digital Transformation

The research also revealed indirect impacts of Employee Performance on Digital Transformation (DT). The direct impact of employee performance on digital transformation was minimal; however, the indirect effects via Agile Framework, Leadership, and Customer Satisfaction were significant. This suggested that employee performance indirectly promoted digital transformation by improving agile techniques, leadership, and customer happiness. Customer satisfaction exerted the most significant influence on digital transformation, underscoring the necessity of a customer-centric strategy throughout the digital transition.

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Hypothesis Testing

The hypothesis that "Employee-related factors positively influence the adoption of agile software development methodology in the digital transformation of an investment bank" was corroborated by the SEM results. Employee performance substantially impacted the results of both agile methodology and digital transformation, whether directly or indirectly. Furthermore, robust leadership and customer satisfaction surfaced as essential mediators in the correlation between personnel variables and effective digital transformation.

Key Insights

The results emphasized the necessity of improving employee performance to guarantee the success of agile software development in investment banks experiencing digital transformation. The choice of a suitable Agile Framework and the commitment to leadership development were essential elements that favorably impacted employee engagement and digital transformation results. Ultimately, prioritizing customer happiness was crucial for the sustained success of digital transformation initiatives, acting as a pivotal intermediary between employee performance and the overall success of digital transformation.

Discussion And Conclusions

The discourse underscores the essential importance of employee engagement in driving the success of agile software development within digital transformation efforts in investment banking. The results indicate that elevated employee performance immediately improves the efficacy of agile techniques and leadership effectiveness, which are crucial for maneuvering through the intricate and rapid environment of financial institutions. Motivated and engaged employees are more inclined to embrace the agile framework, which depends significantly on cross-functional collaboration, adaptability, and swift decision-making. This is especially crucial in investment banking, where the swift advancement of technology and regulatory requirements necessitates teams who are both proficient and very adaptable. The research indicates that employee performance indirectly affects digital transformation by enhancing agile practices and leadership, underscoring the necessity of cultivating a work environment that encourages creativity, cooperation, and ongoing learning. The focus on customer satisfaction as a vital mediator highlights the necessity for a client-centric strategy in facilitating digital transformation, ensuring that technical innovations meet customer expectations and improve service delivery.

This study concludes that employee-related characteristics, specifically performance, engagement, and leadership, are crucial for the effective implementation of agile software development in investment banking. To ensure the efficacy of digital transformation programs, banks must prioritize staff engagement strategies that promote interdepartmental collaboration, increase leadership development, and emphasize customer happiness as a fundamental objective. The research indicates that a robust leadership structure, coupled with engaged personnel, fosters an environment that promotes continual development and innovation, which is vital for sustaining a competitive advantage in the financial sector. Investment banks may effectively address the obstacles posed by legacy systems, regulatory restrictions, and market fluctuations by investing in staff development and aligning digital transformation objectives with agile approaches, thereby fostering long-term success and operational excellence.

References

1. Aliyev, J. (2024). The Impact of Digital Transformation on Organizational Culture and Employee Engagement. *Available at SSRN 4772230*.
2. Alqudah, M., & Razali, R. (2018). An empirical study of Scrumban formation based on the selection of scrum and Kanban practices. *Int. J. Adv. Sci. Eng. Inf. Technol*, *8*(6), 2315-2322.
3. Jaramillo, S., & Richardson, T. (2016). *Agile engagement: How to drive lasting results by cultivating a flexible, responsive, and collaborative culture*. John Wiley & Sons.
4. Lukić, N. J., Dudić, B., & Mirković, V. (2024). The impact of employee engagement on organizational agility in the digital age: A case study of the software development company. *International Review*, (1-2), 15-25.
5. Ogundipe, D. O., Odejide, O. A., & Edunjobi, T. E. (2024). Agile methodologies in digital banking: Theoretical underpinnings and implications for customer satisfaction. *Open Access Research Journal of Science and Technology*, *10*(2), 021-030.
6. Robertsone, G., & Lapiņa, I. (2021). Digital transformation and the changing shape of quality management practices. In *Scientific Conference on Economics and Entrepreneurship Proceedings* (pp. 82-99).
7. Tayal, R., Kumar Upadhya, R., Yadav, M., Rangnekar, S., & Singh, R. (2018). The impact of transformational leadership on employees' acceptance to change: Mediating effects of innovative behaviour and moderating effect of the use of information technology. *VINE Journal of Information and Knowledge Management Systems*, *48*(4), 559-578.
8. Trenerry, B., Chng, S., Wang, Y., Suhaila, Z. S., Lim, S. S., Lu, H. Y., & Oh, P. H. (2021). Preparing workplaces for digital transformation: An integrative review and framework of multi-level factors. *Frontiers in psychology"*, *12*, 620766.
9. Wiraeus, D., & Creelman, J. (2019). *Agile strategy management in the digital age*. Palgrave Macmillan.