

Examining Development Project Selection Difficulties in Digital Communication Companies: A Root Cause Analysis

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ABSTRACT: ABC, a leading company in communications technology, is facing challenges in developing a fair and unbiased process for selecting new ventures amid an increasing number of computer program development projects. In conditions where the industry faces many projects taking place simultaneously, but the number of available developers is limited, the process of managing and evaluating projects becomes increasingly complex. This results in a decrease in the level of customer satisfaction with the products and services the company provides. In addition, the company faced problems due to the unavailability of clear and consistent project evaluation guidelines. The lack of clear and consistent guidelines resulted in less efficient resource allocation and extended the duration of project completion. This research focuses on improving the decision-making process by using root cause analysis to identify key issues and their impacts. The methods used include surveys, semi-structured interviews, and root cause analysis to explore the core problems and needs of stakeholders. The results showed four main causes of weak project management and decision-making: technical, financial, administrative and strategic planning issues. Overall, the research provided insights into how these issues affected service performance, increased operational waste, reduced quality, and resulted in stakeholder dissatisfaction.

KEYWORDS: Project Development, Cause Effect, Digital Communication, IT, Root Cause Analysis

INTRODUCTION

Due to rapid changes in technology, ABC as a digital communication company confronts peculiar new challenges in project development. Given the intricacy of the contemporary business landscape, firms now need to strategically allocate their scarce resources to competing cross-structured projects. These challenges are more acute in an environment lacking adequate skilled manpower to keep pace with growing project demands. The rising competition within the sector, combined with high client expectations, an industry-wide unremitting need for innovation, and relentless competition, dictates success hinges on flexibility, adaptiveness, and decisive strategic planning [18]. In addition to system updates, other problem resolutions, and new feature integration, these sectors strive to sustain excellence in service quality. Persistent imbalance between competing priorities often leads to frequent resource misallocation, project execution stagnation, declining service quality, and plummeting client satisfaction. These shortcomings define the focus of this case study, the digital communications company ABC. A pervasive lack adequately defining project prioritization creates disproportionate resource allocation and pervasive inadequate service quality. Beyond immediate operational challenges, these organizational inefficiencies profoundly undermine client loyalty and the firm's long-term viability.

The purpose of this study is to apply Root Cause Analysis as the main methodology to investigate the core issues facing companies while selecting development projects. This approach provides a holistic understanding of challenges by revealing problems and their effects, interdependencies, and underlying factors that shape the company's difficulties. The analysis uncovers insights that support the refinement of techniques, thus addressing the better-defined causal connections among issues. The study focuses on qualitative design and uses Root Cause Analysis to tackle systems problems in an organization with many interacting components. It captures opinions from different stakeholders through semi-structured interviews and surveys to ensure all perspectives are integrated and understanding of the concerns is comprehensively multilayered across the organizational hierarchy.

LITERATURE REVIEW

A. *Development Project Selection in Software Development*

The selection of information technology (IT) projects is critical for software development firms, specifically those operating in highly competitive markets. Following systematic methods for project evaluation is extremely important, and recent literature has underscored the risks associated with poor selection methods [2]. Businesses lacking a well-defined rational decision framework experience inefficiencies such as chronic underperformance, project delays, and resource squandering [3]. Competing client demands, resource availability, system functionalities, and strategic alignment all add layers of complexity to the selection of development projects for IT firms [3]. These companies are said to have to balance operational demands with long-range strategic plans, pitting sustained innovation efforts against the need for rapid response 'fixes' [14]. These days, there is greater focus on portfolio management as a means of achieving business goals in modern methodologies for project management [10]. Many firms face conflicting internal and external priorities that, paradoxically, impede the effective adoption and implementation of sound portfolio management frameworks.

B. *Root Cause Analysis in Organizational Contexts*

Root Cause Analysis is one of the most powerful instruments a company can use to both identify issues and comprehend their true origins [15]. This method attempts to deconstruct multifaceted issues into simpler components so that scholars and practitioners can identify the core challenges. It is most useful in cases where numerous factors are intertwined with organizational problems. [7].

Studies have proven the effectiveness of Root Cause Analysis in unraveling interdependence in causative systems within complex systems. This methodology ensures complete problem identification by gaining support from stakeholders, which ensures that every angle and all direct and indirect contributing elements are addressed [20].

C. *Challenges in Digital Communication Industry*

The digital communications industry faces challenges brought on by rapid technological change, intense competition, and shifting customer expectations [5]. It is clear that companies in this industry face an incessant struggle for balance between maintenance and innovation, which demands constant focus. [11]. The nature of business and competition has shifted dramatically as a result of digital transformation [4]. Companies need to maintain high levels of operational effectiveness and exceed customer expectations in meeting these demands within a highly sophisticated technological landscape. [19].

This alteration has resulted in additional complexities for project selection and the allocation of resources. Studies have recognized, along with others, some of the more common issues facing firms in the sector as the problems of customer satisfaction, innovation, technical management, and rigid quality management [16]. These challenges are often intertwined, making a number of them much more complex that require systematic analysis to unravel the myriad challenges involved [6].

METHODOLOGY

A. *Research Approach*

This research employed qualitative research methods based on Root Cause Analysis to analyze the problem of project selection at ABC Company. This methodology balances the needs of the stakeholders and incorporates multiple methods of data collection for a full understanding of the core issues.

B. *Root Cause Analysis Structure*

The research was primarily framed by Root Cause Analysis. The strategy includes impact mapping, cause analysis, and problem identification as its three primary pillars. This approach enables a comprehensive examination of the interplay of various elements towards the main challenge of inadequate selection and management of development projects. The study then proceeds to identify the major and immediate causes after establishing the core problem. The impacts of the main issue are then charted to ascertain their wider ramifications for organizational performance and stakeholder satisfaction.

C. *Data Gathering Approaches*

The first of three primary techniques used to collect data for this study was semi-structured interviews. These interviews focus on important stakeholders, including vice presidents of development, project managers, and product teams. There is expected that the interviews might expose relevant factors and gain a variety of viewpoints on the obstacles to choosing growth projects.

The second stage, a survey distributed to stakeholders to gather quantitative insights regarding the comparability of each existing project and its current priority issues from the interviews. A document check was then conducted to sort out relevant organizational documents and reviewed to provide additional context and verify findings from primary data sources.

D. Analysis Process

Root Cause Analysis is formed through a process involving data from multiple sources. Initial problem identification completed through stakeholder validation, to ensure accuracy and completeness of the problem structure. Causal relationships is determined based on interviews, surveys and document analysis.

RESULTS AND ANALYSIS

A. Core Problem Identification

The Root Cause Analysis shows that "Suboptimal Development Project Management and Selection at Company ABC" serves as the central problem affecting the organization. This core issue represents the fundamental challenge that underlies various operational difficulties and performance concerns experienced by the company.

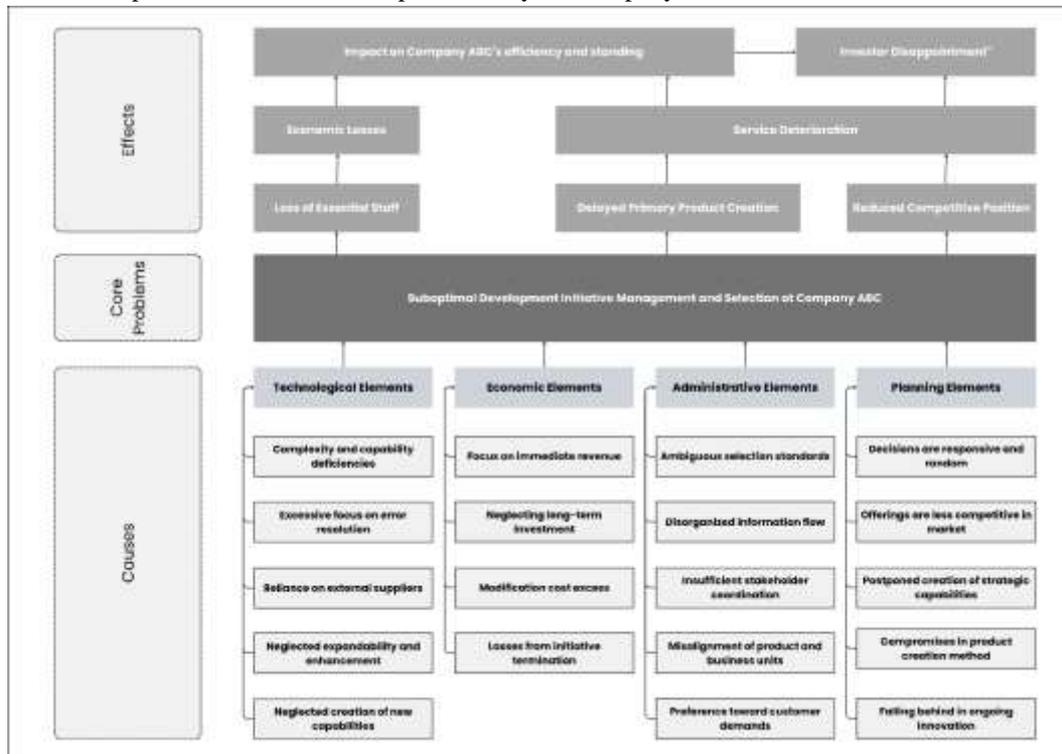


Figure 1 Cause-Effect Diagram

B. Cause Analysis

The study identifies four primary cause categories contributing to the core problem:

1) Technical Factors

Technical factors represent significant contributors to development project selection challenges. The analysis reveals that the company faces considerable difficulties in accurately assessing project complexity and matching requirements with available technical skills. A fundamental mismatch between project demands and organizational capabilities results in unrealistic project estimates and poor selection decisions, which aligns with findings on challenges in project portfolio management [9]. The failure to adequately assess technical requirements prior to project initiation results in a number of problems impacting the entire selection process.

The company prioritizes reactive bug-fixing over proactive development, taking important resources away from the latter. This leads to a troublesome cycle where resources for developing new features are still lacking while technical development

keeps expanding. Despite being necessary for system stability, the emphasis on quick fixes prevented the business from making long-term investments in strategic planning and technical advancements.

For certain technical capabilities, a strong reliance on outside vendors leads to major bottlenecks and makes project scheduling more difficult. Because internal teams must coordinate with external partners who might have different priorities and timelines, this dependence limits a company's flexibility in project selection and execution. Since the company had to consider the availability and cost of external resources when making the selection, vendor dependency further complicated the project evaluation.

According to the analysis, system scalability and optimization are ignored, resulting in performance issues that must be fixed immediately and interrupt scheduled development activities. The organization was forced into a reactive mode when basic system architecture issues were overlooked, where technical issues needed to be resolved quickly rather than methodically planned and managed. Since teams regularly stop strategic work to address performance issues, the lack of scalability planning includes a very important impact on project selection.

2) *Financial Factors*

The selection of development projects across the organization is heavily influenced by financial factors. These businesses often prioritize projects that generate short-term revenue over long-term strategic initiatives that could lead to higher profits in the future. The balance between maintenance and innovation is affected by this short-term financial focus, leading to patterns that depart from accepted best practices in strategic management [17]. The capacity of organizations to invest in fundamental improvements that can enhance overall system performance and competitive position is limited by the desire for immediate returns.

The organization's limited attention to long-term investment opportunities greatly limits its capacity to handle critical system improvements and create durable competitive advantage. This method of financial planning prevents the business from making long-term, strategic investments in process optimization, skills development, and technology infrastructure that can effectively pay off. Project selection is affected by the lack of a long-term financial perspective because the team cannot defend initiatives based on their potential future benefits, even when doing so could significantly improve the organization's capabilities.

Budget overruns for project modifications that may become used for other important projects, leading to a lack of resources and continuous problems with selection. Although these cost overruns are frequently the result of inadequate initial planning and scope definition, those effects go beyond the particular project and have an impact on the portfolio selection procedure. When modification costs are higher than anticipated, organizations are forced to postpone strategic efforts or reduce other scheduled projects, both of which impair overall organizational effectiveness.

Significant revenue losses, sunk costs, and resource waste are the outcomes of project cancellations, which have an adverse effect on organizational effectiveness and subsequent project evaluations. These cancellations occur typically because of changing goals, a lack of funds, or initially miscalculated technical needs. Companies are discouraged from starting creative but risky ventures that could provide them with a substantial competitive edge because of the financial consequences of abandoned initiatives, which develop a culture of risk aversion.

3) *Management Factors*

Management challenges deeply affect the overall project selection process of the organization. The lack of appropriate and impartial guiding policies results in erratic choices for development projects, which in turn leads to constant conflict concerning the allocation of resources. These outcomes strongly support research advocating the need for an organized approach to portfolio management to enhance organizational effectiveness [2]. When various stakeholders pursue project priorities due to some form of indirect influence or self-interest rather than the overarching strategic goals of the organization, the lack of uniform appraisal benchmarks tends to undermine optimal resource deployment, resulting in competing project priorities.

Displaced focus and lack of detail during the selection procedure stems from poorly operationalized organizational communication systems. These hindrances create gaps in the accurate information flow critically for stakeholders to evaluate a project successfully. Fragmented information leads to incongruent decisions conflicting with the strategy or organizational context which align with the steps in the selection process.

Due to insufficient stakeholder coordination, an enhanced development project selection process is overly undermined, which in turn generates significant conflict and decreases the overall success rate. If key stakeholders are inadequately involved, pivotal perspectives and requirements may be bypassed resulting in projects misaligned with the organization's genuine needs. Furthermore, due to the insufficient involvement of stakeholders, the support is also reduced, which can impact resource allocation and successful implementation of the project.

Ineffective allocation of resources and prioritization is caused by the disconnect between business units and product development teams. Due to this misalignment, business units may request projects that are resource-intensive or not technically feasible, while technical teams may pursue projects that are not aligned with business objectives. The overall impact of the project portfolio is reduced due to conflicting demands on scarce resources caused by a lack of coordination among key functions of the organization.

The selection approach and long-term strategic goals can be complemented by an overemphasis on immediate customer demand. A company's success depends on meeting customer needs, but focusing overly on immediate demand can keep a company from chasing long-term goals that could provide more benefits. The planning development process is often affected by this reactive approach to customer feedback, which causes teams to constantly rearrange their priorities according to the latest customer input, rather than the strategic goals of the organization.

4) *Strategic Planning Factors*

Planning factors have a major impact on how well organizations select development projects. In contrast to accepted project management principles, companies often select development projects reactively rather than strategically and methodically [14]. Projects are usually selected based on short-term demands rather than long-term strategic goals and organizational capabilities because of this reactive decision-making pattern. In the absence of a systematic planning process, an organization will be unable to sustain a functioning development strategy, resulting in an incoherent project portfolio which may not align with the wider business goals.

With regards to choosing projects, the most difficult aspect to consider is competitive positioning since firms have to strike a balance between meeting industry benchmarks and servicing business competitors. Under these conditions, the decision of whether to preserve existing processes that ensure high-quality service, or to adopt new technologies with the hope of gaining a competitive edge becomes challenging. Most organizations end up acting defensively due to having to respond to competitors and, in the process, strategic internal priorities and organizational capabilities tend to get overshadowed by competitors' movements during project selection.

Competitive advantage can be lost in the long run by postponing the creation of strategic capabilities, which further intensifies the burden on decisions made reactively. In order to keep pace with the market or compete with other participants, organizations tend to allocate their limited strategic resources far too early and, thus, lose the ability to develop these resources in a timely manner. As a result, project selection teams face constant delays and are forced to catch up which leads to a perpetual race to adapt to external demands rather than establish a long-term competitive advantage.

The swapping of different development strategies is rather unproductive, which affects the entire organization far deeper as it brings forth an element of randomness into the decision-making process across different projects and time spans. The absence of specific organizational policies for choosing developmental processes, technologies, or implementation techniques results in haphazard project execution and challenges in evaluating project options. The key to the selection process is directly affected by the uncertainty surrounding these development approaches, which makes it more difficult to accurately estimate project requirements, timelines, and resource needs.

Ignoring ongoing innovation will ruin a company's ability to maintain its market share and negatively impact long-term selection strategies. As organizations must balance between current operational needs and future innovation needs, these findings further highlight the importance of managing innovation in digital transformation [5]. ABC companies risk losing opportunities to create game-changing capabilities or invest in new technologies that could give them a huge competitive advantage if they do not have a systematic focus on innovation.



C. Effect Analysis

Root Cause Analysis identifies the main issue triggers various outcomes:

1) Immediate Effects

1. Financial Losses

Due to inefficient resource use, project cancellations, and missed revenue opportunities, suboptimal selection directly results in financial losses.

2. Key Staff Turnover

Concerns among staff members and difficulties retaining talent are caused by inadequate project management and ambiguous selection.

3. Delayed Core Product Development

Ineffective selection leads to delays in core product development, which affects competitive positioning.

2) Secondary Effects

1. Organizational Performance Impact

The cumulative effect of selection issues affects overall organizational performance and market reputation.

2. Decreased Quality of Service

Insufficient selection contributes to service quality issues as resources are not optimally allocated between maintenance and development activities.

3. Weakened Competitive Position

Poor selection decisions result in a decreased competitive position in the market.

3) Ultimate Effect

All identified issues ultimately contribute to stakeholder disappointment, which represents the highest-level negative outcome of non-optimal management and selection of development projects.

D. Interconnected Relationships

Root Cause Analysis reveals the complex interrelationships between various causes and impacts. Technical factors influence financial considerations, while management issues influence technical and planning decision-making. These linkages suggest that addressing the core problem requires a comprehensive approach that considers multiple causal factors together.

DISCUSSION

The Root Cause Analysis showed the complexity of the development project selection challenges at ABC company. The identification of four different categories of causes - technical, financial, management, and strategic planning - showed that an effective solution must address multiple dimensions at the same time. These causes suggest that isolated interventions may have limited effectiveness. For example, improving technical capabilities without resolving management communication issues may not lead to better selection outcomes. Many of the causes found here are deeper organizational issues than surface-level problems, according to the analysis. Insufficiently defined selection criteria or stakeholder roles outline gaps within organizational frameworks and workflows.

As suggested here, organizational modifications are the primary focus for effective problem resolution as opposed to quick fixes [15]. Other businesses facing such issues should be ready to invest in cultural overhaul alongside complete refinement process. Root Cause Analysis clarifies how different stakeholders are impacted by the problems resulting from the selection of development projects. The evolution from operational challenges to stakeholder dissatisfaction illustrates the deep repercussions of poor project management [12]. To generate support for corporate initiatives and ensure that the solutions provided are within the interests of all the affected parties, it is essential to appreciate the relevance of these stakeholders [3].

IMPLICATIONS AND RECOMMENDATIONS

A. Organizational Implications

It is important for firms to grasp that picking certain development projects is a multifaceted problem which is intricate and complex in nature. Given that the contributing factors are interconnected, comprehensive solutions are required for problem resolution to be effective.



Management must invest in developing clear selection frameworks that address technical, financial, management, and planning considerations simultaneously. This requires cross-functional collaboration and organizational commitment to systematic improvement [16].

B. Practical Recommendations

Based on the Root Cause Analysis, several practical recommendations emerge, namely:

1) Create Structured Selection Frameworks:

The company must establish clear and objective standards for the selection of development initiatives that consider various elements and stakeholder perspectives.

2) Enhance Information Flow Systems:

Implementing a structured information flow process can address many of the previously identified administration-related issues.

3) Balance Immediate and Long-term Goals

Companies should develop mechanisms to balance immediate needs with strategic long-term goals in selection decisions.

4) Invest in Technological Abilities

Addressing the technology element requires investment in human capabilities and technology infrastructure.

C. Future Recommendation

This research opens several paths for future investigation with studies that can examine how companies successfully overcome barriers to the selection of development initiatives over time. Comparative research across different industry sectors could identify sector-specific patterns and solutions. Investigating specific intervention strategies can provide more detailed guidance for companies facing similar barriers.

LIMITATIONS

This study has some limitations that must be recognized. The study focused on one company, which may limit the generalizability of the findings to other contexts. Root Cause Analysis, while comprehensive, represents a snapshot of the situation at a particular time and may not be able to capture dynamic changes in the organizational environment.

Because of the qualitative nature of this research, the findings are open to interpretation and may not provide a measurable evaluation of how the different factors contribute in a relative way.

CONCLUSION

Applying Root Cause Analysis, this research provides a comprehensive examination of the issues encountered by ABC Company in choosing development projects. It was determined that 'Suboptimal Management and Selection of Development Initiatives' was the primary issue under the root causes categorized as technical, financial, managerial, and strategic planning. The analysis also illustrates how these limitations evolve from operational shortcomings to stakeholder discontent, demonstrating the interwoven nature of these factors. From the findings, tackling problems in isolation was counterproductive; instead, effective resolution demands a holistic approach that integrates multiple interrelated dimensions. For grasping organizational problems and the interrelationships of various contributing factors, Root Cause Analysis provides a robust solution.

The methodology actually plays a critical role in developing clear plans for improvement that address the fundamental issues of concern instead of merely alleviating the symptoms. It captures the attention of scholars for the need to examine all aspects of the organizational development efforts thoroughly. An all-encompassing strategy that combines all the relevant technical, financial, managerial, and planning elements is necessary to solve the issues relating to project selection. This research broadens the literature on problem solving and project management by proving the applicability of Root Cause Analysis in a technology company. The knowledge obtained applies to other organizations facing comparable challenges in project selection.

These future lines of research should investigate the design of more effective methods of intervention and monitor how organizations can systematically refine their project selection processes and apply more refined systematic processes. Also, the ability to measure the effectiveness of these selection processes through quantitative metrics would greatly contribute to the advancement of the discipline. Continued research into practical interaction strategies and systematic improvement assessments will



help organizations refined their approach to selecting development initiatives, promoting better decision-making and project success rates.

REFERENCES

1. Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. V. (2013). Digital business strategy: toward a next generation of insights. *MIS Quarterly*, 37(2), 471-482.
2. Cooper, R. G., Edgett, S. J., & Kleinschmidt, E. J. (2001). Portfolio management for new product development: results of an industry practices study. *R&D Management*, 31(4), 361-380.
3. Dong, H., Dacre, N., Baxter, D., & Ceylan, S. (2024). What is Agile Project Management? Developing a New Definition Following a Systematic Literature Review. *Project Management Journal*, 55(4), 287-304.
4. Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. *MIT Sloan Management Review*, 55(2), 1-12.
5. Hanelt, A., Bohnsack, R., Marz, D., & Antunes Marante, C. (2021). A systematic review of the literature on digital transformation: Insights and implications for strategy and organizational change. *Journal of Management Studies*, 58(5), 1159-1197.
6. Hess, T., Matt, C., Benlian, A., & Wiesböck, F. (2016). Options for formulating a digital transformation strategy. *MIS Quarterly Executive*, 15(2), 123-139.
7. Ishikawa, K. (1985). *What is total quality control? The Japanese way*. Prentice-Hall.
8. Kane, G. C., Phillips, A. N., Copulsky, J. R., & Andrus, G. R. (2019). *The technology fallacy: How people are the real key to digital transformation*. MIT Press.
9. Killen, C. P., Hunt, R. A., & Kleinschmidt, E. J. (2008). Project portfolio management for product innovation. *International Journal of Quality & Reliability Management*, 25(1), 24-38.
10. Locatelli, G., Mancini, M., & Romano, E. (2014). Systems engineering to improve the governance in complex project environments. *International Journal of Project Management*, 32(8), 1395-1410.
11. Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business & Information Systems Engineering*, 57(5), 339-343.
12. Müller, R., Locatelli, G., Holzmann, V., Nilsson, M., & Sagay, T. (2024). Artificial Intelligence and Project Management: Empirical Overview, State of the Art, and Guidelines for Future Research. *Project Management Journal*, 55(2), 156-172.
13. Peppard, J., & Ward, J. (2016). *The strategic management of information systems: Building a digital strategy*. John Wiley & Sons.
14. Project Management Institute. (2021). *The standard for portfolio management*. Project Management Institute.
15. Rooney, J. J., & Vanden Heuvel, L. N. (2004). Root cause analysis for beginners. *Quality Progress*, 37(7), 45-53.
16. Sebastian, I., Ross, J., Beath, C., Mocker, M., Moloney, K., & Fonstad, N. (2017). How big old companies navigate digital transformation. *MIS Quarterly Executive*, 16(3), 197-213.
17. Teece, D., Peteraf, M., & Leih, S. (2016). Dynamic capabilities and organizational agility: Risk, uncertainty, and strategy in the innovation economy. *California Management Review*, 58(4), 13-35.
18. Vial, G. (2019). Understanding digital transformation: A review and a research agenda. *Journal of Strategic Information Systems*, 28(2), 118-144.
19. Westerman, G., Bonnet, D., & McAfee, A. (2014). *Leading digital: Turning technology into business transformation*. Harvard Business Review Press.
20. Wilson, P. F., Dell, L. D., & Anderson, G. F. (1993). *Root cause analysis: A tool for total quality management*. ASQ Quality Press.

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