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## INTRODUCTION

Building on the success of our first issue, we are excited to present this second edition of the ISM Journal of International Business, which continues to serve as a platform for intellectual exploration and academic recognition. At ISM, we are committed to fostering a vibrant research culture, and this issue proudly highlights the outstanding contributions of our doctoral students, whose work advances knowledge and shapes contemporary debates in international business.

This edition adopts an enriched format, placing a well-deserved spotlight on the rigorous and impactful research undertaken by ISM doctoral students. Their work represents a diverse range of innovative ideas, empirical studies, and theoretical advancements that challenge conventional perspectives and offer fresh insights into international business practices. By providing a dedicated platform for these scholars, we celebrate their academic and scientific success, acknowledging their research as a vital part of ISM's intellectual legacy.

Our journal not only serves as a repository for these groundbreaking contributions but also as a bridge between academia and industry. Many of the featured works have already been recognized in esteemed academic journals, while others represent pioneering research in progress. By sharing these insights, we aim to inspire scholarly discourse, encourage collaboration, and contribute to the continuous evolution of global business knowledge.

This issue is a testament to the dedication, perseverance, and intellectual curiosity of our doctoral students. It reflects ISM's mission to nurture thought leadership and support scholars in making a lasting impact in their fields. We invite you to engage with the wealth of ideas presented in these pages and celebrate the remarkable achievements of our academic community.



We also encourage all ISM alumni to contribute to future editions of this journal. If you have research findings, theoretical advancements, or industry insights to share, we welcome your proposals for publication. Please submit your work to [christophe.schinckus@faculty.ism.edu](mailto:christophe.schinckus@faculty.ism.edu) for consideration.

A heartfelt thank you to all who contributed to this issue. Your research and commitment continue to shape the future of international business. Enjoy the reading!

**Prof. Dr. Christophe Schinckus**  
**Director of Research Strategy, ISM**

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# A Holistic Cost Engineering Framework for Early Design Stages for Manufacturing Organisations: A design science research study

DR. RAPHAEL SCHLUP (PHD)



## Abstract

The growing complexity of products and systems is increasing the pressure to protect margins in order to increase the profitability of manufacturing organisations. As a result, cost reduction initiatives are at the top of the boardroom agenda as manufacturing organisations are increasingly challenged to find new sources of profit improvement. Due to a lack of detailed methodology in the existing academic literature, manufacturing organisations struggle to apply cost engineering artefacts. In fact, if a manufacturing organisation effectively manages manufacturing costs during new product development, it gains a competitive weapon in terms of profit protection or improvement. This underlines the importance of conducting this practical design science research study. The research question for this study is “How can manufacturing organisations in Switzerland use cost engineering frameworks in the early design stages of new product development or ongoing cost reduction initiatives?” Design science research is used to enable the development of innovative, practical and useful cost engineering artefact solutions. This study conducted a systematic literature review to identify existing academic literature that contains relevant solution artefacts to substantiate key aspects of design-to-cost, design-for-manufacturing, design-for-assembly methodologies by developing solution artefacts for professionals that enable the development of a cost-effective design solution compared to a pre-defined cost target by identifying key cost drivers or factors. Based on the findings, the study proposes a cost engineering framework that integrates the key elements of the identified solution artefacts. The improved or new artefact was evaluated in a real manufacturing environment by conducting a hybrid case study.

**Keywords:** Innovative and practical cost engineering method, cost reduction, cost improvement, cost estimation model, new product development, procurement process, cost engineering, design to X, design-to-cost framework.

## 1. Introduction, context and Research problem

This research study addresses the critical need for integrating Cost Engineering (CE) frameworks early in the Product Development Process (PDP) to enhance profitability and maintain competitive advantage. Traditional PDPs often overlook manufacturing costs until later stages, leading to cost overruns and profit loss. This study proposes a structured approach using Design Science Research (DSR) to develop innovative and practical cost engineering artifacts, emphasizing that 70-80% of manufacturing costs are determined in the early design stages (Retolaza et al., 2021).

The study highlights the growing complexity of products and the necessity for interdisciplinary systems engineering, particularly with the integration of electronics and software into traditionally mechanical products. It underscores the importance of early cross-functional collaboration and structured cost estimation methods, such as Should Costing and Design-to-Cost (DtC). The research identifies a gap in detailed methodology for applying cost engineering frameworks during the early design stages of new product development (Morales, 2016).

The traditional product development process often includes

manufacturing cost considerations too late, resulting in cost overruns and profit loss. Rising raw material and logistics costs further strain profit margins, necessitating early collaboration and structured cost estimation methods. Many manufacturing organizations lack skilled cost engineering staff and formal CE methods (Domanski, 2020). The shift from a seller's to a buyer's market demands a top-down approach to cost management, aligning target costs with product management from the outset.

## 2. Objectives and research methodology

The study leverages Design Science Research (vom Brocke et al., 2020) to develop innovative cost engineering artefacts, focusing on integrating cost engineering frameworks early in the product development process. It aims to provide practical solutions for cost engineering practitioners, professionals, and academics, contributing significantly to academic literature and global competitiveness in manufacturing. The researcher's extensive experience in various industries highlights the challenges of balancing cost, time, and quality during the product development process, particularly in a multicultural, interdisciplinary context.

The research follows the Design Science Research (DSR) methodology (vom Brocke et al., 2020), guided by the twelve-step method proposed by Dresch et al. (2015). It includes a systematic literature review (SLR) to identify relevant methodologies and existing solution artefacts that almost ideally solve the problem under study. The study employs an iterative design cycle, involving expert evaluations and real-case applications to refine the developed artefacts, ensuring their effectiveness and usability.

## 3. Systematic Literature Review Framework and Results

The systematic literature review (SLR) framework (vom Brocke et al., 2009; Waidelich et al., 2018) aims to analyze existing cost engineering practices, identifying gaps and generating new knowledge that bridges theory and practice. The findings stress the importance of cross-functional collaboration, supplier integration, and early-stage cost management. The SLR results reveal previously developed solution artefacts, informing the development of practical cost engineering methods in this study.

## 4. Developing and Evaluating Artefacts

The study employs the DSR methodology to develop a cost engineering artefact aimed at improving manufacturing efficiency. It involves a systematic approach, including identifying ideal artefacts and developing performance criteria. The selected artefact is based on Favi et al. (2016) and aims to reduce costs and improve quality in a real manufacturing environment. The iterative evaluation process according to the FEDS framework (Venable et al., 2016) with experts and real-case applications ensures the artefact's rigour and applicability. The research emphasizes the importance of grounding the developed artefacts in academic work while obtaining practical feedback from industry professionals (van Aken et al., 2012).

## 5. Key Contributions and Implementation

The research provides practical guidelines for cost engineering practitioners, professionals, and academics on the importance of integrating cost engineering frameworks early in the product development process. It highlights the necessity of cross-functional collaboration, structured cost estimation methods, and a systematic approach to managing manufacturing costs. The study bridges the gap between academic theory and practical application, contributing significantly to the existing academic literature and knowledge base.

The developed cost engineering framework demonstrates practical

applicability in real manufacturing environments, enhancing product development efficiency, cost engineering, cost management and cost controlling. The research emphasizes the importance of disseminating successful cost engineering practices worldwide to enhance global competitiveness. The ultimate goal is to produce actionable solutions for managing manufacturing costs, ensuring organizations can maintain competitive profit margins and achieve long-term success.

## 6. Conclusion and Future Research

The study concludes that recognizing the significance of cost engineering in the early stages of product development is essential for maintaining competitiveness in a dynamic global market. The research developed a comprehensive cost engineering framework to create cost-effective designs for complex industrial products from the early stages of new product development. This framework, implemented through a structured stage-gate process, ensures cost verification at each step, helping organizations optimize costs, protect margins, and achieve long-term success.

The study lays the groundwork for future research areas, including validating Design-for-Manufacturing (DfM) factors (Mörtl & Schmied, 2016) and exploring the integration of AI and Industry 4.0 technologies into cost engineering methods (Bodendorf & Franke, 2021; Hennebold et al., 2022). Future research is needed to empirically test DfM factors and develop guidelines for novice researchers. By integrating these strategies early in the development process, organizations can optimize costs, protect margins, and achieve long-term success in a competitive global market.

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## Biography

The author began his professional career in 2002 as a multi-skilled mechanic in the canton of Solothurn after completing his diploma thesis at a part-time vocational college in Switzerland. He then worked in the watch industry as a multi-skilled mechanic, stamping tool maker and stamping tool designer. In 2009, he completed a part-time professional bachelor's degree ODEC in mechanical engineering at TEKO Berne, a vocational college in Switzerland, while working as a mechanical development and project engineer in the machine and automotive industry.

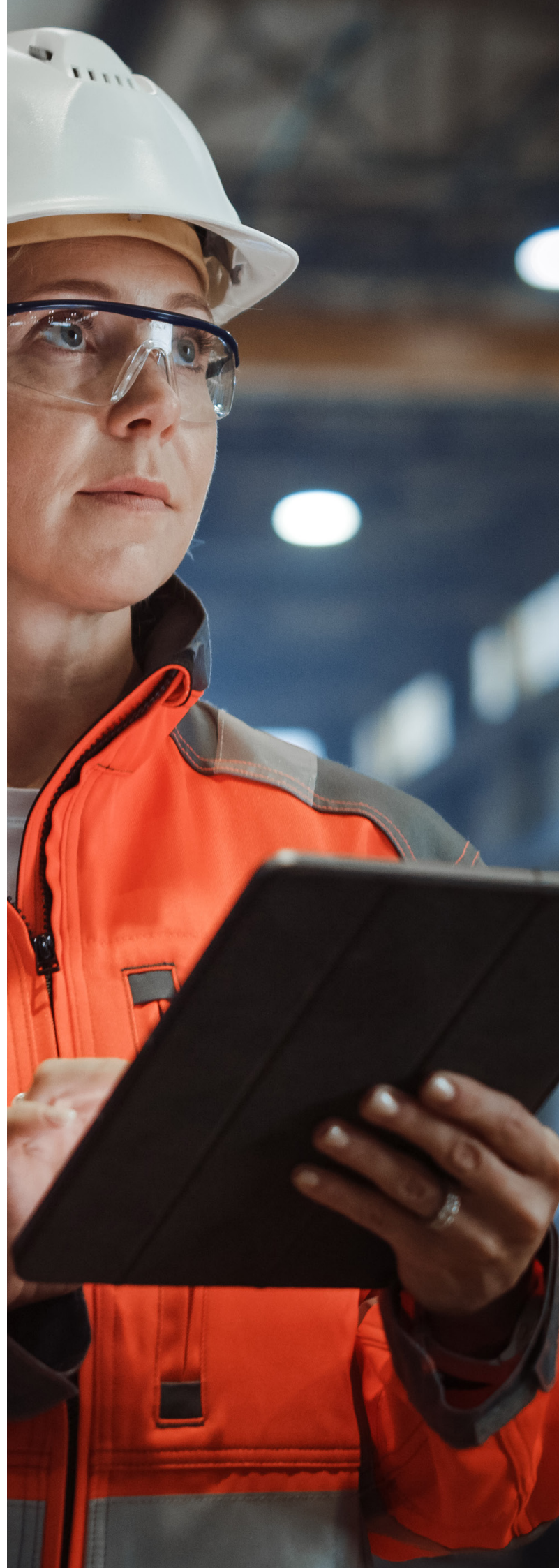
In 2014, the author started his part-time Master in Entrepreneurial Management at the University of Liechtenstein. He worked as a project manager and product manager in the automotive industry, focusing on steering systems for OEMs in China. His master's thesis was on "The evaluation of an Indian market entry mode for an operating unit of a European tier-one supplier in the automotive industry".

In 2019, a few months before the outbreak of the coronavirus pandemic, the author founded his own consulting company providing specific value and cost engineering solutions or services to manufacturing organisations, due to the lack of open or available positions as a cost engineer at that time in Switzerland.

In addition to his professional experience, the author has several strengths that would benefit any manufacturing organisation. He is perceptive, reliable and has an entrepreneurial mindset, a prerequisite for driving innovation.

He focuses on applying creative and solution-oriented approaches, coupled with initiative, assertiveness and teamwork. The author acknowledges his weaknesses, such as sometimes focusing too much on details and sometimes being overly enthusiastic about launching or pushing innovative projects before detailed due diligence has taken place.

However, he believes that these weaknesses are rooted in the purpose of promoting innovative projects and the knowledge of the importance of continuous effort and perseverance, and that they can be addressed and fine-tuned.





# Exploring the lived experiences of board members in extractive companies: A phenomenological study on the decision-making process for legacy-driven, high-impact projects in sub-Saharan Africa

DR. KGOMOSTO TSHAKA (PHD)



## Abstract

**The decisions made by board members of extractive companies have a long-lasting impact on host communities, even after the companies have ceased operations. This research delves into the lived experiences of board members overseeing extractive companies, and investigates the decision-making processes they use for legacy-driven, high-impact projects in Sub-Saharan Africa. The extractive industry is witnessing increased interest in environmental, social, and governance (ESG) issues, with stakeholders becoming more critical of industry responses and their impact on host communities and corporate legacies. This study aims to understand the dynamics among board members as they navigate these complexities.**

**Keywords:** Cognitive constraints, board decision-making processes, board dynamics, legacy-driven, high-impact projects, integral and spiral dynamics theory.

## 1. Introduction

The decisions of board members in extractive companies have profound impacts on society and their organizations long after decommissioning. Board decision-making is crucial for governance and a company's success, although it can be hampered by cognitive biases and constraints. Addressing these challenges is vital for improving decision quality. A diverse board can better respond to stakeholder needs, foster innovation, and encourage adaptive strategies (Dimungu & Mogaji, 2024).

Board conflicts are inevitable, particularly during major changes, as boards depend heavily on information from the CEO, who proposes strategic initiatives. The board must balance this reliance with the need for independent judgment (Schepker et al., 2018).

## 2. Literature review

Analyzing a closed-group phenomenon like boards of directors provides a deeper understanding of how and why boards, as well as individual directors, make decisions or sometimes fail to act.

By centering on Sub-Saharan Africa, the research context is well-defined, as the research gaps support a more extensive geographical study, since most studies are through the country-level lens. The existing literature explores the theory of bounded rationality from a multi-dimensional perspective, advocating for a forward-looking approach that recognizes the complex challenges inherent in the extractive industry. This study draws upon Wilber's Integral Theory (2004), as referenced in Donkers (2016), and further examines levels of consciousness by applying Spiral Dynamics theory. The literature identifies many factors influencing board effectiveness, arguing that effective decision-making relies on complex thinking. Decision-making is a multidisciplinary phenomenon observable at individual, group, and organizational levels (Jardao et al., 2020). It is rational, linear, and analytical. However, scholars describe it as "boundedly rational" or "quasi-rational" due to inherent cognitive biases in information processing. Strategic decision-making involves a combination of rational thought and intuition, where intuition allows for the swift, subconscious identification of patterns that enhance analytical assessments. Therefore, decision-makers must gather and 5.

evaluate all pertinent information both rationally and intuitively. This decision-making process unfolds in a sequential manner and affects all levels of the organization. Numerous factors—such as cognitive biases, heuristics, and interpersonal dynamics—can significantly influence the outcomes. In fast-paced markets, decision-makers encounter the vital challenge of effectively integrating their choices into strategic frameworks. Consequently, boards may experience difficulties in collaboration, and their overall effectiveness is profoundly influenced by social and psychological factors, including active group participation, critical discussions, and the exchange of information.

Perception, cognition, information gathering, and analysis are foundational elements for thinking and decision-making (Papulova & Gazova, 2016). Therefore, it is clear that numerous factors can influence decision-making outcomes, highlighting the need for further exploration in this area. Emotional intelligence is a crucial yet often overlooked aspect of decision-making research. Understanding emotions can help decision-makers anticipate potential adverse outcomes before finalizing their decisions. It is also vital for decision-makers to recognize and manage their emotions throughout the decision-making process. The literature also suggests that board interlock activities can help organizations navigate environmental uncertainty and interdependence by providing diverse and unique information, spreading new corporate practices, and facilitating critical processes such as diffusion and learning, ultimately impacting firm performance (Lamb & Roundy, 2016). However, board interlocks have certain disadvantages, including an inability to reliably predict corporate behavior and performance, which can lead to skepticism about their effectiveness.

The modern business landscape requires senior leaders to manage vast data, necessitating quick and effective processing. As complex challenges present, leaders use their extensive experience to identify patterns and make informed decisions. A recent study by Mazutis and Eckardt (2022) revealed that only 1% of board members prioritize sustainability among their top three concerns, indicating that many directors should begin to prioritize sustainability in their agendas. Furthermore, while 87% of executives believe their boards should play a significant role in their company's sustainability efforts, only 22% of boards currently do so. It is improbable that a single company's efforts to reduce the negative impacts of ESG, no matter how effective, will be recognized if communities are overwhelmed by the cumulative impacts of multiple companies. Although it is not fair to hold companies responsible for the actions of their competitors, they should collaborate to mitigate the cumulative effects instead of ignoring them. Collective action and pooling of resources can achieve more in this regard. A consensus exists in the literature, agreeing that many Sub-Saharan African governments cannot manage the anticipated industrial expansion.

The Integral theory assumes that the attitude and behavior of individuals and the culture of groups and systems in the environment are interrelated and influence each other. Simplistically, it states that everything that happens in the world has four perspectives that play a role. Linking these four perspectives together creates the four quadrants: (I) intention, (It) behavior, (Its) social systems and structures, and (We) culture (Donkers, 2016).

### 3. Methodology and Methods

This study employed the linear process coding strategy and the reflexive thematic analysis process utilizing NVivo software for data analysis. During the transition to axial coding, data was meticulously sifted, refined, and categorized to create distinct thematic categories in preparation for selective coding (Williams & Moser, 2019). In the final level of coding, or "selective coding," organized data categories from the axial coding phase were systematically integrated using coherent expressions resulting in major themes and sub-themes.

### 4. Results

Two major themes emerged from the data, 1. Facilitation and Good Practices 2. Barriers and Challenges, each with their respective sub themes. Applying the ontological schedule of Wilber, cited in Donkers (2016), an integrated quadrant resulted in The Integrated Decision-Making Facilitation Model in Figure 1(A and B).

**A) The Integrated Decision-Making Facilitation Model as per Wilber's Integral Theory - Application of the breakdown of the Major themes and Sub-themes into an integrated quadrant**



Note Adapted: Wilber (2004,p99)

**B) Breakdown of Sub Theme Codes using quadrant approach as per Wilber's Ontological Schedule**



Created by author



**Figure 1:** Integrated Decision-Making Facilitation Model and Breakdown of Sub Themes using Quadrant Approach

This model achieves two key objectives: **1)** Enhancing board effectiveness by emphasizing personal attributes, such as integrity and transparency, and **2)** The model underscores the importance of ethical leadership in fostering a trustworthy and accountable governance environment. The interplay of these objectives is crucial in the decision-making process.

The Barrier and Challenges Mitigation Model offers a framework to effectively navigate through complexities in **Figure 2**.



**Figure 2:** Barriers and Challenges Mitigation Model (created by author).

By effectively addressing targeted barriers that hinder the success of the legacy-driven projects, this model proactively highlights strategies to mitigate potential risks and ultimately enhance legacy project outcomes.

### 3. Conclusion

This study is of notable significance as it adds to our understanding of the strategic decision-making processes in the boardrooms of extractive companies. This study suggests practice, policy, and governance recommendations for both Sub-Saharan African extractive companies and governments seeking to strengthen and enhance corporate governance by providing crucial insights into the complex matters of the board decision-making process. By adopting these models, extractive companies can improve their governance processes, enhance board dynamics, and ultimately drive more successful project outcomes.

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### Biography

Dr Kgomotso Tshaka is an experienced Sustainability executive and board member with a demonstrable history in the mining industry (diamond, platinum, coal, and gold sectors). She holds a PhD in International Business Management with a specialization in Finance, Entrepreneurship and Innovation from the International School of Management (Paris).

She is a seasoned professional and a researcher with experience in ESG, sustainability strategy, project management, risk management, regulatory compliance, negotiations, and corporate governance, with a keen interest in collaborating and partnering in areas aligned with ESG-related challenges in the extractive industry.

She is also open to temporary associate professor assignments in the area of her research globally being fully appreciative of the research gaps in this area of study. She is contactable via [linkedin.com/in/kgomotsotshaka](https://www.linkedin.com/in/kgomotsotshaka).





# Digital Transformation of Fundraising Strategies & Operations of Academic Medical Centers in the United States During the COVID-19 Pandemic: A Multiple-Case Study.

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## Abstract

**The COVID-19 pandemic underscored the importance of and the United States' dependency on academic medical centers (AMCs) to train the next generation of healthcare professionals, advance treatments and preventative care through research, and provide compassionate care to some of the most vulnerable in our population. Despite the United States's dependency on AMCs, a growing threat looms as declining philanthropic revenue threatens this portion of the nonprofit sector. The purpose of this qualitative, multiple-case study is to describe and document the perceptions of subject matter experts (SMEs) who work at AMCs in the United States and the strategies they employ to digitally transform internal fundraising and operating strategies and processes to meet donor needs, grow philanthropic revenue, gain operational efficiencies, develop staff capabilities, and enhance their organization's use of technologies to support their philanthropic efforts.**

**Keywords:** Academic medical center, digital transformation, philanthropy, fundraising, COVID-19

## 1. Introduction

The COVID-19 pandemic underscored the importance of and society's dependence on nonprofit organizations, including academic medical centers. An academic medical center (AMC) is a hospital or hospital network that is organizationally and administratively integrated with a medical school, straddling both the healthcare and higher education sectors (Joint Commission International for Academic Medical Centers, n.d.). While not all AMCs are nonprofit organizations (NPO), the majority of AMCs in the United States are NPOs and rely on a mix of service-driven revenue and philanthropy to support their operations (Definitive Healthcare, 2022). AMCs employ millions of individuals in the United States, including more than 191,000 full-time faculty members, 95,000 medical students, 149,000 resident physicians, and 60,000 graduate students and postdoctoral researchers (Association of American Medical Colleges 2022, Economic Impact, p. ES-0).

Despite the scale of these numbers, there is an expected shortage of more than 100,000 physicians in the United States by the year 2032

and the continued growth and ability for AMCs to train more physicians is critical to closing that gap and helping to meet healthcare needs both now and, in the future, (Fisher, 2019).

Fundraising is an important component of an AMC's revenue portfolio because "although AMCs account for only five percent of hospitals in the United States, they provide almost 40% of charity care or free medical treatment for people otherwise unable to pay, and 25% of Medicaid hospitalizations," thereby helping to make up the social gaps between the un- and under-insured (Clark et al., 2023, p. 282). The focus of this study was on AMCs in the United States that have a joint development program, meaning the AMC's fundraising efforts "are for the benefit of both the medical school and the medical school's primary teaching hospital" (AAMC 2020, p. 2; AAMC Annual Development Report Dataset, 2021). These AMCs raise billions of dollars annually (AAMC Annual Development Report Dataset, 2021). Despite this impressive level of fundraising, declining philanthropic support in both healthcare and higher education sectors has been observed by AMCs (Association of American Medical Colleges,



2020; Blackbaud Online Giving Trends, 2020, p. 9; Giving USA, 2022). During the pandemic, there was a growing preference by philanthropic donors to give online, but healthcare charities and higher education institutions saw a below average number of gifts from online sources compared to other philanthropic sectors (Blackbaud, 2022; 2021 AAMC Development Survey Report, 2022). Even during the pandemic when there was an increased focus on healthcare and philanthropic giving, there was an overall decline in giving to healthcare charities and higher education institutions (McCartney, 2020; Martin et al., 2021; Blackbaud, 2022). Post-pandemic fundraising data suggests a continued decrease in public funding to AMCs that are public institutions, such as state medical schools with a joint public hospital, but there was an increase in funding to private AMCs, such as private medical schools with a joint private hospital (2023 AAMC Development Survey Report, 2024). While this study was conducted during and just after the pandemic was declared officially over by the WHO and examines a mix of both private and public AMCs, further research could help to identify and understand if there are any fundraising and operational differences between the two types of AMCs (public v. private) and whether differences in approaches to fundraising and operations impacts outcomes. Without further study, however, we can observe that public institutions decreased their staff during the same period in which there was a decline in fundraising, versus private AMCs who reportedly hired additional staff during the same period and saw increased fundraising compared to the prior year and compared to public AMCs (2023 AAMC Development Survey Report, 2024, p. 3).

The overall decline in giving to healthcare charities and higher education institutions, including the below national average number of gifts from online sources, demonstrates the impact of the lagging response of AMCs to adapt their fundraising strategies and operations in the digital age (Giving USA, 2022). If there is a lag in the digital transformation of AMCs and their fundraising strategies and operations, it could pose a threat to society and warrants more in-depth study and research (Shukla et al., 2022). In order to meet donor demand and expectations in relation to their philanthropic interests and giving preferences, a wide-scale transformation of fundraising and operating strategies by AMCs is needed, yet little scholarly or practical guidance has been provided to the nonprofit sector to aide in this transformation (Brink et al., 2020; Nahrkhalaji et al., 2018; Cipriano & Za, 2021; Lee & Trimi, 2020).

The term “digital transformation” has been defined as the broad “use of new digital technologies that enables major business improvements and influences all aspects of customers’ [lives]” (Reis et al., 2018, p. 418). This definition of digital transformation (DT) was adopted for this study. DT impacts organizations in “three key areas”: customer experience, operational processes, and business models (Nahrkhalaji et al., 2018, p. 1245) and is “fundamentally not about technology but about strategy” and people (Rogers, 2016, p. 239). Digital transformation was thrust into the spotlight during the pandemic because of the important role scholars and consultants believed it could play in the transformation of organizations to new and or adapted operating models required from all sectors of society, including NPOs, due to the pandemic’s impact. Despite the abundance of scholarly research on the subject, however, there is little applied, practical research related to the digital transformation of the nonprofit sector (Brink et al., 2020; Nahrkhalaji et al., 2018; Cipriano & Za, 2021).

## 2. Methodology & Research Questions

This qualitative, multiple-case study described and documented the perceptions of the SMEs who work at AMCs in the United States and the strategies they employ to digitally transform internal fundraising

and operating strategies and processes to meet donor needs, grow philanthropic revenue, gain operational efficiencies, develop staff capabilities, and enhance their organization’s use of technologies to support their philanthropic efforts. Along with the data and insights collected through the interviews, researcher observations and publicly available documentation, such as IRS Form 990s and AMC websites, were used as common forms of inquiry to develop a case study to explore the phenomenon of the digital transformation of AMCs in the United States.

By exploring how SMEs from AMCs approach the digital transformation of their fundraising strategies and operations, including the capabilities (defined herein as the people, processes and tools of an organization) required to support their efforts, the intention was to develop further understanding of the strategies and operating models AMCs are utilizing in order to digitally transform their organizations and meet donor needs (Eisenhardt & Martin 2000; Rialti et al., 2019). This dissertation assumed that AMCs must sustain and grow their revenue in order to ensure continuity of services, programs, research, and support for the benefit of society as a whole.

The research focused on three Research Questions:

- **RQ1.** What has been the impact of the COVID-19 pandemic on the fundraising strategies of AMCs and the giving preferences of their donors?
- **RQ2.** What enterprise capabilities, including the behaviors and skills, are required in order for AMCs to more efficiently and effectively fundraise and operate in the digital age?
- **RQ3.** What are the tools and resources are needed for nonprofit organizations to transform and scale operations in the digital age?

## 3. Findings

The focus of RQ1 was to explore and document the impact of the COVID-19 pandemic on the fundraising strategies of AMCs and the giving preferences of their donors. Through the responses to RQ1, the study identified several themes, including:

1. Digital transformation became a necessity when the pandemic began (March 2020) and served as a catalyst for change.
2. The pandemic accelerated work related to prioritizing donor preferences and evolving to more sophisticated donor communication, marketing, and engagement strategies as a result of digital capabilities.
3. Observed changes to donor giving behaviors during the pandemic varied amongst the AMCs interviewed and in part were driven by new donors to the organization.
4. Challenges associated with their organization’s digital transformation efforts included aspects of structural, strategic, cultural, and management.

RQ2 focused on the enterprise capabilities AMCs need in order to fundraise and operate in the digital age. Responses from SMEs to RQ2 elicited the following themes:

1. Staff development and training in the areas of data analysis and storytelling has a growing importance in the ongoing maturity of fundraising and operating strategies due to the increasing volume and velocity of data AMCs have available to them in their philanthropic efforts.
2. Soft skills were described as just as important as data analytic skills.

**3.** Leadership modeling the way through data-based decision-making was as important as the skills themselves because an important role of leadership in digital transformation efforts is to help set direction, expectations, and standards for staff, thereby enabling a culture of data-based decision making.

RQ3 shifted focus to the subjective insights of the SMEs and the tools and resources they believe NPOs need in order to transform and scale operations in the digital age. Emergent themes from SME responses to RQ3 included:

- 1.** The importance of integrated tools that help to create a comprehensive view of their donors.
- 2.** The belief that the COVID-19 pandemic impact enabled their organizations to quickly shift to virtual events, which were previously not routinely practiced or offered. This shift to virtual as a fundraising and engagement channel has remained open in the years since the pandemic began (March 2020), thus providing fundraisers with the option to hold fundraising events and engagement opportunities based on donor preferences, sometimes resulting in greater organizational efficiencies and cost savings.
- 3.** Despite the challenges described by SMEs in relation to their AMC's digital transformation, including the lessons learned during the pandemic, the SMEs interviewed remained optimistic as they described opportunities for a future ideal state, both for their own organizations and that of the nonprofit sector.

Based on the findings, as well as the literature review, five primary areas were identified as recommendations for practice, including: **(1) identifying the enterprise capabilities**, skills, behaviors, and organizational culture needed to support a DT and carving out resources (financial and talent) to support those efforts; **(2) ensuring leaders are well prepared** and equipped to lead their organization's through a DT; **(3) developing data strategies** and management processes to support DT; **(4) understanding and identifying opportunities associated with big data**, artificial intelligence, and machine learning to support their AMC's fundraising strategies and operations; and **(5) developing mitigation strategies** and plans to address common challenges faced by organizations in their DT journeys (Matt et al., 2015). In practice, these five primary areas of recommendations also correspond to the DT frameworks developed by Matt et al. (2015) and Vial (2019), which appears to serve as a basis for further practical application and adoption by AMCs.

#### 4. Implications of the Study and Conclusion

The findings indicate that there is no single answer to each of the three Research Questions given the varied complexity and nuances of each AMC as it relates to their organization, management, strategies, and culture (Nahrkhalaji et al., 2018). At its core, however, we can see that digital transformation is not about technology, but about strategy, culture, and the people who bring their missions to life through authentic relationships developed with the donor's philanthropic interests in mind. Each AMC must develop the strategies and plans necessary to address the changes necessary for their organization's particular digital transformation journey and what will enable the development of new and existing donor relationships, aligned to the needs of the AMC and its mission (Kane et al., 2015; Kane, 2019; Roger, 2016, Heavin & Power, 2018). Additional research opportunities exist to expand the scale and scope of the study by interviewing additional SMEs from additional AMCs and completing

a quantitative study. The research could also be expanded to include other types of NPOs and the unique circumstances and challenges they face in their DT efforts. As a result of additional studies, additional tools and frameworks specifically for the nonprofit sector could be developed and leveraged to provide support for philanthropic leaders in their efforts to digitally transform their fundraising strategies and operations in the digital age.

Although this paper produced several interesting insights into the digital transformation strategies and operations of several AMCs, it has some limitations that should be acknowledged. First, given the purpose of this study, the sample size was small and is not reflective of trends or insights that can be applied all AMCs in the United States. Second, this paper is limited by the variables and insights shared by the SMEs and variable not discussed in their responses are not explored in this paper, such as the specific strategic frameworks the SMEs deployed in their AMCs to formulate their digital transformation strategies and whether or not consultants or third-party experts supported the process. Future research could develop this study by collecting additional data from additional AMCs with different digital transformation implementation maturity levels. Finally, the proximity of the COVID-19 pandemic undoubtedly impacted the experiences, responses, and insights shared by the SMEs and the outcome of their decisions was not explored outside of the immediate context and timeframe in which they were deployed.

In summary, the COVID-19 pandemic demonstrated the importance of AMCs and the United States' collective reliance on the healthcare system (ASPE, 2022). Given the important role that NPOs, including AMCs, play in society, continued study of the digital transformation of NPOs and AMCs is needed to support scholarly development and practical application of frameworks to support the successful DT of AMCs and mitigate the challenges of the digital transformation of tis fundraising strategies and operations (Nahrkhalaji et al., 2018).

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## Biography

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