

Research Article

Multiindustry Group SEM Analysis for the Roles of Managerial Accountants in a New and Sustainable Episode

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Abstract.

This study aims to investigate the roles and responsibilities of management accountants in Thailand, in a new and sustainable episode that has been disrupted by internal and external factors. Specifically, it also identifies the key factors that drive the changing roles of managerial accountants to be more innovative and business-strategy-oriented. Secondary data were employed in this study via the posted questionnaire to accountants who work in three industry sectors, namely manufacturing, retail and wholesale, and services. Multigroup structural equation modeling (multigroup SEM) was administered from the data. A sample set of 182 was gathered and used in the study's analysis. 45% of the sample were accountants who worked in manufacturing, 22% in retail and wholesale, and 33% in service companies. The study proposed a structural equation modeling approach to determine key factors-digital technology force, leadership, digital technology readiness, digital technology competency, and attitude-that influence the changing roles of managerial accountants. The study finds that the factors that influenced the changing roles of managerial accountants differ from sector to sector. The digital technology force was found to have a weak influence on the changing roles of accountants, but moderately strong in retail and wholesale services. While the attitude of the accountants themselves was very strong to influence the changing roles, it was moderately strong for retail and wholesale, and rather weak for the services sector. Other factors-leadership, digital technology readiness, and digital technology competency-were found to have a mediating effect.

Keywords: changing roles, managerial accountants, digital disruption, attitude, digital technology, sustainable

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1. Introduction

In today's rapidly evolving world, the sustainability of accounting professions is becoming a topic of significant concern. As technological advancements continue to reshape the business landscape and economic contexts undergo profound transformations, accountants face a multitude of challenges and opportunities. The conventional function of accountants, which revolves around the task of financial reporting, is undergoing a



redefinition, consequent to the heightened requirement for enhanced transparency, efficiency, and strategic decision-making [1].

Technological advancements, including artificial intelligence (AI), automation, and data analytics, help to transform the accounting profession [2]. Advanced technologies can carry out repetitive tasks for example entering massive data entries and making reconciliation, with an unprecedented accuracy and efficiency. With the aid of these advanced technologies, accountants who embrace automation process in accounting procedure can focus their time and effort on upskilled tasks or on management roles [3]. The execution of technology has enabled accountants to redirect their time from ordinary tasks to more strategic tasks.

Furthermore, the effects of technological advancements and economic transformations may vary greatly depending on the industry. To illustrate, the manufacturing sector has observed a noteworthy assimilation of technology into its operational procedures. The implementation of automation and robotics has streamlined production lines, resulting in a decrease in expenses and an increase in efficacy [4]. In light of this, accountants operating in the manufacturing industry must adapt to technological innovations such as computer-integrated manufacturing systems and enterprise resource planning (ERP) systems to promptly capture and analyze financial data [5].

Industries such as retail, wholesale, and services encounter disparate levels of impact arising from evolving technological and economic contexts. Despite the fact that technology adoption remains widespread in these sectors, its nature and degree may diverge. E-commerce, for example, has significantly affected retail enterprises, necessitating accountants to adapt to digital platforms for increased sales, inventory management, and financial reporting [6]. Moreover, the online payment systems and data-driven marketing techniques necessitate accountants to analyze the consumer behavior and financial transactions in real-time to facilitate the strategic decision-making of the management [7].

In the services industry, technological advancements such as cloud computing and software-as-a-service (SaaS) have facilitated the provision of remote accounting services, as well as seamless collaboration with clients [8]. Additionally, industries that operate on a service-based model encounter distinctive challenges pertaining to revenue recognition, contract administration, and subscription-based business models, necessitating that accountants possess a comprehensive comprehension of and capacity to implement suitable accounting norms and practices [9].

In addition, it is noteworthy how different industries are affected by economic circumstances and regulatory structures in unique ways. For instance, the manufacturing sector might be influenced by trade policies, supply chain disruptions, and changing consumer preferences, necessitating accountants to adapt their financial reporting practices accordingly [10]. On the other hand, the services industry might face challenges related to changing labor regulations, intellectual property rights, and cross-border transactions, demanding accountants to navigate complex legal and regulatory landscapes [11].

The sustainability of accounting professions under changing technological and economic contexts relies on embracing the opportunities presented by technology while adapting to the specific needs and challenges of different industries. By leveraging technological advancements, accountants can enhance their roles and focus on strategic activities that require professional judgment and critical thinking. Simultaneously, they must navigate industry-specific requirements and economic shifts, ensuring compliance with relevant regulations and effectively managing financial information. Through continuous learning and upskilling, accountants can position themselves as valuable assets in diverse industries and contribute to the long-term success of their organizations.

In the manufacturing industry, accountants may need to integrate advanced technologies, such as computer-integrated manufacturing systems and ERP systems, to capture and analyze real-time financial data and support cost-effective decision-making. Retail businesses require accountants who are adept at utilizing digital platforms and data analytics to manage sales, inventory, and financial reporting in the e-commerce era [12]. Service-focused industries necessitate the expertise of accountants who are proficient in utilizing cloud computing and SaaS solutions to furnish remote accounting services and engage in productive collaborative efforts with clientele [13]. In addition, distinct economic contexts and regulatory frameworks manipulate diverse influences on different industries. In light of these circumstances, accountants are required to deftly navigate these factors, adjusting financial reporting practices and ensuring adherence to industry-specific regulations. To illustrate, while the manufacturing sector may contend with issues stemming from trade policies and supply chain interruptions, the services industry may confront intricacies associated with labor regulations and cross-border transactions.

By acknowledging the dynamic demands of their corresponding sectors, accountants have the potential to acquire the essential competencies and comprehension required to fulfill those necessities in a proactive manner. Sustained education and the enhancement of skills are indispensable factors for remaining pertinent and prosperous

amidst the constantly transforming technological and economic terrains. Accountants who readily accept these modifications and customize their proficiency in alignment with the specific stipulations of diverse industries will be excellently positioned to serve as reliable advisors and strategic partners within their respective organizations.

The sustainability of accounting professions rest on the adaptability and agility of accountants [14] as they navigate the ever-evolving technological and economic dynamics of their respective industries. In order to ensure sustainability, accountants must embrace change, acquire new skills, and customize their roles to match industry needs. Specifically, the sustainability of accounting professions under changing technological and economic contexts relies on the ability to embrace the opportunities presented by technology while adapting to the specific needs and challenges of different industries. Accountants serving various sectors might have to modify their roles and responsibilities to suit the unique needs of the industries they operate in. By utilizing technological advancements and staying up-to-date about industry-specific trends, accountants can enhance their contribution to the success of organizations.

The objectives of the study encompass the investigation of the factors that exert influence over the shifting roles and responsibilities of accountants in a new era, spanning across three distinct industries: namely, manufacturing, retail and wholesale, and services. The approach undertaken involves the individual analysis of these industries, with the purpose of identifying factors that drive the changing role of accountants. The present study seeks to shed light on the technological advancements, economic contexts, and regulatory frameworks that shape the changing landscape for accountants in each industry. Through gaining insights into these factors, valuable knowledge and recommendations for accountants and organizations operating in these sectors can be provided.

2. Literature Review

In modern times, the accounting field has experienced significant changes, resulting in accountants taking on more comprehensive roles and responsibilities. This literature review examines the changing landscape of the accounting profession, focusing on the increased expectations and expanded responsibilities faced by accountants from stakeholders. The review will examine essential research studies that provide valuable insight into the causes of these changes and their implications for both accountants and the organizations they serve.

Studies have suggested that accountants are now taking on a more diverse range of responsibilities beyond traditional financial reporting and compliance tasks. On the contrary, their obligations have expanded to cover a more extensive scope of tasks. Certainly, accountants are expected to provide strategic insights and decision support within organizations to a greater degree [15,16]. In this circumstance, accountants are now recognized as strategic allies, actively involved in assessing financial data, spotting trends, and presenting recommendations for improved performance, as reported by Dahal [17]. This shift reflects the growing recognition of accountants as value-added contributors to the success of organizations.

The impact of technological advancements: The role of accountants has been significantly altered by technological advancements. The integration of digital tools, data analytics, and automation has brought about a profound transformation in the field of accounting, enabling heightened efficiency and comprehensive insights. The roles of accountants have experienced a significant alteration due to the fusion of technological innovations such as AI, machine learning, and robotic process automation [3,18].

The current business landscape has given rise to an escalation in the level of anticipation from diverse stakeholders, such as stockholders, governmental overseers, consumers, and the general public, towards the accountancy profession. These expectations have ensued in a surge in the demand for accountants to furnish forthright and precise fiscal data which conforms to the ever-changing regulatory stipulations. As stated by Copeland [19] and Christ, Rao and Burritt [20] accountants must now engage in tactical and value-adding endeavors to meet these expectations. Additionally, stakeholders now expect accountants to address environmental, social, and governance (ESG) concerns and integrate sustainability reporting into their responsibilities [9]. The pressure on accountants to uphold professional standards has intensified due to the demand for accountability, ethical conduct, and the ability to navigate complex business environments [21].

The changing roles and responsibilities of accountants have significantly impacted for both individuals and entities. Accountants need to develop a broader skill set encompassing not only financial expertise but also data analytics, technology proficiency, and strategic thinking [1,15]. Continuous professional development and upskilling are important for accountants to meet the changing expectations on them [22]. Organizations, on the other hand, must create a supportive environment that fosters the growth and utilization of accountants' new skillsets [23,24]. This may involve investing in training

programs, embracing technological advancements at the work place, and promoting an innovative and collaborative culture in the organizations.

The evolving obligations and roles of accountants mirror the amplified demands and expectations from stakeholders. The broadening range of their responsibilities, propelled by technological advancements and evolving regulatory landscapes, mandates that accountants assimilate new proficiencies and undertake strategic positions within organizations. By acknowledging these shifting dynamics and acclimatizing to them, accountants can persist in delivering value and contributing to organizational accomplishment. Nevertheless, to successfully navigate these changes, continual professional development and organizational support are indispensable for accountants and the organizations they serve [25, 26].

The evolving roles and obligations of accountants in contemporary times are influenced by a plethora of factors. One such factor that holds sway is the impact of cutting-edge technology. The impact of state-of-the-art technology, specifically artificial intelligence, automation, and data analytics, has a momentous effect on the field of accounting, fundamentally altering the responsibilities and tasks of accountants in current times [2]. These technologies possess the capability to mechanize repetitive tasks, thereby allowing accountants to redirect their focus towards more strategic and value-added pursuits [3,18, 27]. By embracing these technological advancements, accountants can increase their performance, efficiency, and precision in their responsibilities.

Leadership plays a key role in cultivating an innovative culture, which empowers accountants to explore unexplored avenues and provides them with the necessary resources to enhance their skills. By establishing an environment that motivates accountants to actively utilize their expertise and collaborate with other functional areas, strong leadership enables them to assume additional responsibilities within the organization [23, 28-30]. This leadership support is crucial in facilitating accountants to adapt to the changing landscape and embrace their extended roles.

Furthermore, the level of technology readiness in an organization is a crucial factor that greatly impacts the evolving responsibilities of accountants [31]. Organizations that embrace digital transformation and allocate resources towards cutting-edge technologies enable accountants with opportunities to adopt sophisticated tools and platforms. This degree of technological readiness enables accountants to take advantage of automation, cloud computing, and data analytics, facilitating their transition to strategic

roles. By prioritizing technological advancements, establishments empower accountants to effectively harness technology, which results in enhanced performance and contributes to the overall success of the establishment [15, 32, 33].

The proficiencies and expertise exhibited by accountants themselves are of utmost importance in shaping their shifting roles. It is essential that accountants cultivate a more extensive array of skills that surpasses the usual accounting knowledge, including data analytics, technology, critical thinking, and problem-solving. The enhancement of competencies empowers accountants to leverage technology efficiently, offer strategic insights, and make well-informed decisions based on intricate financial data. The continuity of professional development is crucial for accountants to acquire and upgrade these competencies, enabling them to adapt to the evolving requirements of their roles [1, 34, 35].

Additionally, the disposition of accountants with regard to embracing alteration and originality is another significant element in shaping their evolving roles. Those accountants who possess a growth-oriented mentality and perceive technology as an opportunity are more probable to adapt effectively to the developing landscape. Favorable attitudes towards constant learning and willingness to confront new challenges empower accountants to explore innovative methodologies, pursue novel prospects, and proactively contribute to organizational development. Accountants equipped with a proactive and forward-thinking attitude are optimally positioned to undertake expanded responsibilities and satisfy the changing expectations placed upon them [17, 36, 37].

The evolving responsibilities of accountants in the contemporary era are impacted by a convergence of factors. The influence of cutting-edge technology empowers accountants to pivot their attention more on strategies, amplifying their efficacy and efficiency. Sound leadership within organizations cultivates an atmosphere that allows accountants to make contributions beyond customary financial reporting. The readiness of technology, the competencies of accountants, and their attitude towards changes collectively shape their transitional roles [22, 38]. By acknowledging and addressing these factors, accountants may fulfill their expanding obligations and expectation in the new era.

3. Research Methodology

The current investigation endeavors to examine the factors that contribute to the evolving roles of accountants in the age of digital transformation. The factors of interest comprise the digital technology force (DTF), leadership (LDS) [28], digital technology readiness (DTR) [39], competencies (CPTC) [40], and attitude (ATT) [41], as documented in the literature [1, 34, 35]. The study design entails the data from accountants employed in different industries, including manufacturing, retail, wholesale, and services. A representative and diverse sample will be selected from each industry utilizing a combination of random and purposive sampling techniques to ensure the inclusion of accountants from various organizational levels and positions. To assess the factors that affect the changing roles of accountants, a structured questionnaire based on established validated scales from relevant literature will be formulated. The questionnaire comprises items related to the DTF, LDS, DTR, CPTC, and ATT factors. The respondents are requested to evaluate their level of agreement or disagreement with each statement on a Likert scale to quantify the variables that impact the evolving roles of accountants.

The investigation of the associations between unobserved (latent) and observed variables shall be undertaken utilizing a statistical method known as structural equation modeling (SEM) with a multi-industry group analysis [42, 43]. The examination is initiated by evaluating the validity and reliability. As stated by Hair Jr et al. [42] and Kline [43], exploratory factor analysis (EFA) was used to uncover underlying factors and assess the measurement model. Confirmatory factor analysis (CFA) was then performed to confirm the appropriateness of the measurement model with the data. Once the measurement model has been validated, the structural relationships between factors will be scrutinized using SEM, and the postulated relationships between DTF, LDS, DTR, CPTC, and ATT will be examined. The assessment of the model fit will include the appropriate fit indices such as chi-square, CFI, TLI, and RMSEA [42, 43].

The present study entailed a comprehensive evaluation of the moderating effects exerted by diverse industries on the relationships between the factors. This analytical procedure enables a more profound comprehension of how the factors impact across industries and their influence on the evolving responsibilities of accountants [44, 45].

4. Findings

The present study comprised of an examination of 182 accountants, who worked across various fields. The participants who worked in manufacturing sector had the largest percentage, 45.1%, followed by retail and wholesale at 22.0%, and services at 33.0%. The participants held different positions within their organizations, with 34% being CFO and Controller, 42.3% as Accountants, Auditors, and Internal Auditors, and 23.6% in other positions. Financial accounting and managerial accounting were the most common roles held by the majority of participants, accounting for 55.5% of the sample, with 51.1% employed in foreign joint-venture companies. The study utilized a Likert scale ranging from one to five to measure a level of agreement for each item in the questionnaire. One is least agreement and five is the most favorable and agreeable. The results indicated a moderate perception regarding the accountants' changing roles in supporting management, with an average score of 3.73 out of 5.00. The variable with the highest mean score was Competencies, with a mean of 4.28, indicating a strong perception of the significance of competencies in adapting to evolving roles. Each factor evaluated in the analysis exhibited strong consistency, with Cronbach's Alpha values exceeding 0.70. See Table 1.

Throughout this analysis, an SEM methodology was employed to investigate the factors that impact the changing roles of accountants across three different sectors. Specifically, the study focused on the manufacturing, retail and wholesale, and services industries. By implementing six latent variables, the SEM analysis assessed the causal impact of these variables on the evolving duties of accountants. This research strategy aimed to capture the nuanced influences and dynamics that shape the changing roles of accountants in distinct industrial contexts, thereby enabling a more comprehensive understanding of the factors that drive the evolving responsibilities of accountants within each industry. The chi-squared to degree of freedom ratio for the model of the multi-industry group is 1.636 with a corresponding p-value of 0.01, implying that the model fits well with the observed data. Additionally, the goodness-of-fit indices give supplementary details on the model's fitness. The GFI value of .889 and AGFI value of .916 indicate a relatively good fit of the model. The CFI value of .961 also suggests a strong fit, indicating that the model fits the data well compared to a baseline model. Furthermore, the RMSEA of .06 indicates that the model is an almost ideal fit for the data. These findings seem to indicate that the multi-industry group model is a satisfactory fit for the observed data,

TABLE 1: Variables used in the study.

Variable	Definition	Number of items	Means	Cronbach's Alpha
Changing roles of accountants(CH)	Accountants have transitioned from focusing solely on accounting numbers to actively supporting management decisions with comprehensive information, playing a proactive and advisory role in strategic decision-making.	4	3.73	.912
Digital technology force (DTF)	The force from advanced technology, i.e. AI – Artificial Intelligence; Block chain; Cloud Business platform; New Operation system	4	3.45	.839
Leadership(LDS)	Organizational leaders actively support technology implementation, fostering a culture of innovation and enabling effective utilization of technology throughout the organization.	5	3.95	.891
Digital technology readiness (DTR)	Organizations are digitally ready, equipped to leverage technology for their operations and stay competitive in the digital age.	5	4.03	.933
Competencies (CPTC)	Having strong technological competencies, being ready and familiar with the use of technology in their operations.	3	4.28	.737
Attitude(ATT)	Having a positive attitude, enthusiasm for learning, and collaborative approach contribute to elevating company performance by working with executives and embracing new technology	5	4.18	.936

lending support to the model's validity in explaining the relationships between latent variables and the changing roles of accountants across different industries.

From the findings, it was discovered that attitude and digital technology force both exert a direct impact on the changing roles of accountants. The unstandardized coefficients for attitude and technology force were determined to be 0.73 and 0.31, respectively. These coefficients serve to indicate the magnitude and direction of the relationship between each factor and the changing roles of accountants. Furthermore, attitude is influenced by digital technology readiness, mediated through competency. Competencies were found to have a direct effect on attitude, with a 0.55 coefficient. These findings suggest that the level of competencies that accountants possess contributes directly to their attitude, while digital technology readiness indirectly influences their attitude through another mechanism. This emphasizes the interconnectedness of these variables and their impact on shaping the attitudes of accountants towards their changing roles. Furthermore, it was observed that the advancement of digital technology has influenced the management of organizations to accept and implement it. However, in the case of the manufacturing group, this influence was found to be relatively weaker compared to other industries. The analysis suggests that the manufacturing industry may face certain challenges or barriers that hinder the full acceptance and implementation of digital technology compared to other sectors. See Figure 1.

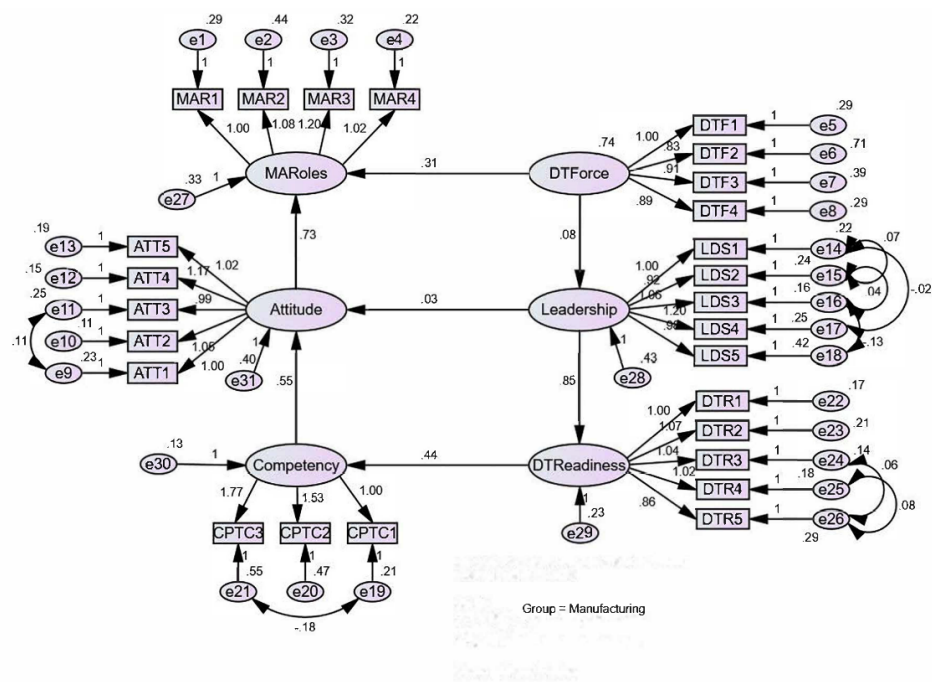


Figure 1: Manufacturing industry SEM model.

In Figure 2, the models for the retail and wholesale industry are presented. This model demonstrated different levels of coefficients for the digital technology force in relation to the changing roles of accountants. Notably, the latent variable representing

the digital technology force exhibited a strong coefficient of 1.23 (unstandardized), indicating a substantial influence on the changing roles of accountants in the retail and wholesale industry. This coefficient value is notably stronger than that observed in the manufacturing group. The findings suggest that the retail and wholesale industry places a higher emphasis on the impact of digital technology in reshaping the roles of accountants compared to the manufacturing sector. The observed disparity accentuates the industry-specific dynamics and priorities pertaining to the influence of digital technology on the evolving roles of accountants. A notable discovery is that attitude significantly impacts the changing roles of accountants in the retail and wholesale sector, albeit with a slightly lower unstandardized coefficient in comparison to the manufacturing group (0.52). The other latent variables in the model for the retail and wholesale sector exhibit analogous patterns to those observed in the manufacturing group. Furthermore, a robust coefficient is demonstrated by the digital technology force in relation to leadership within the model for the retail and wholesale sector. The coefficient, which gauges the strength of the correlation, is 0.69 (unstandardized), revealing a substantial influence of the digital technology force on leadership in this industry. Notably, this coefficient surpasses the corresponding coefficient found in the manufacturing sector. This finding indicates that in the retail and wholesale sector, the impact of digital technology on leadership practices is particularly salient. The strong coefficient emphasizes the necessity of digital technology in shaping and facilitating effective leadership practices, underscoring the imperative for leaders in this sector to adopt and leverage technology to propel organizational triumph. See Figure 2.

In Figure 3, the model for the services sector is illustrated. Analogous to the other industries, the orientation of the relationship between each latent variable and the evolving functions of accountants is presented in a similar manner. Nonetheless, there is one salient differentiation in the services sector model. The latent variable of leadership evinces a robust correlation with the latent variable of attitude, with a coefficient of 0.92 (unstandardized). This coefficient denotes a significant and potent association between leadership and attitude within the services sector. Significantly, this coefficient is substantially higher than the corresponding coefficients perceived in the manufacturing sector (0.03, unstandardized) and the retail and wholesale sector (0.26, unstandardized). This discovery implies that leadership exerts a particularly robust influence in shaping the attitudes of accountants in the services industry, accentuating the pivotal role of leadership in propelling positive attitudes and facilitating the successful adaptation of accountants to changing roles. See Figure 3.

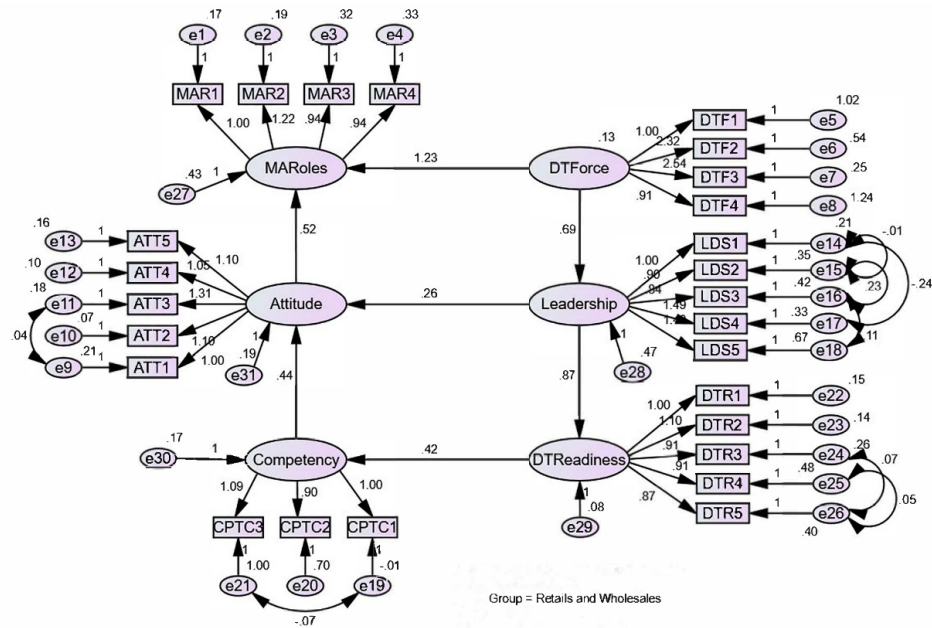


Figure 2: Retail and wholesale industry SEM model.

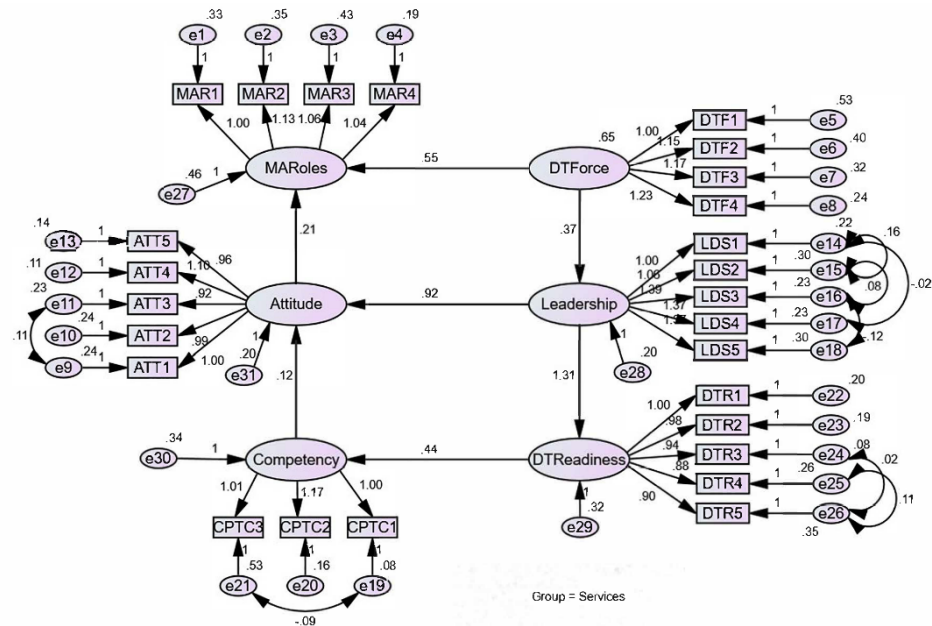


Figure 3: Service industry SEM model.

5. Discussion and Conclusion

Our research was centered on three key industries: manufacturing, retail and wholesale, and services. We aimed to explore the influence of digital technology on the evolving roles of accountants within these sectors. The impacts of digital technology on the

shifting roles of accountants differ considerably across the various sectors. The results of the investigation indicated that both the direct impact of digital technology and the effect of attitude had the most notable effect on the modifications of accounting roles. The retail and wholesale sector experienced the most significant impact from digital technology compared to other sectors [46, 47]. This implies that the adoption and integration of digital technologies have a more pronounced influence on the dynamic roles of accountants in the retail and wholesale industry. This could be attributed to the nature of the sector, which necessitates efficient and technologically-driven procedures, such as inventory management, supply chain optimization, and customer analytics.

The impact of digital technology on the evolving roles of accountants extends beyond direct effects, as identified by the study. Two additional paths or directions have been observed through which digital technology influences these roles. The first path involves mediation by leadership and attitude, indicating an indirect impact on accountants' changing responsibilities by influencing leadership practices. As mentioned by several authors from the past studies, strong leadership allow accountants to assume more responsibility [23, 28, 29]. When accountants themselves possess leadership or they work in an organization where leadership is seen from their top management, will facilitate them to adapt to the changing landscape and allow them the embrace new and additional and proactive roles and responsibility. Attitude is also the key factor to equip the accountants to be proactive and forward-thinking [1, 17, 34-37]. The second path entails mediation by leadership, digital technology readiness, competencies, and attitude, whereby digital technology influences the changing roles of accountants through multiple intermediaries. These intermediaries include leadership, which drives the organization's readiness for digital technology adoption, digital technology readiness itself, the competencies of accountants in utilizing digital technology, and ultimately their attitudes towards the changing roles.

In the first path, the investigation exposed that the unstandardized coefficient pertaining to digital technology's impact on attitude, standing at 0.73, was the most prominent path in the manufacturing industry when juxtaposed with the retail and wholesale sector's 0.52 and the services sector's 0.21. This indicates that the influence of digital technology on shaping accountants' attitudes towards changing roles was most pronounced in the manufacturing sector. Furthermore, in the retail and wholesale sector, the relation between digital technology force and leadership demonstrated a very strong with the unstandardized coefficient of 0.69. This signifies a substantial impact of digital technology force on influencing leadership practices within this sector. In the services

sector, the relation between leadership and attitude showed the highest unstandardized coefficient of 0.92. This highlights the significant influence of leadership on shaping the mindsets of accountants in the service industry [48]. These discoveries accentuate the divergences specific to the sector regarding the interplay among digital technology force, leadership, and mindset, underscoring the significance of contemplating industry context in scrutinizing the effect of these factors on the evolving functions of accountants.

The second indirect path pertains to the influence of digital technology on the changing roles of accountants. This influence is mediated by several factors, including leadership, digital technology readiness, competencies, and attitude. This pathway is characterized by a more intricate relationship among these elements. In the context of the manufacturing sector, the study reveals a significant and robust correlation between leadership and the readiness of digital technology. The unstandardized coefficient of 0.85 indicates that effective leadership in manufacturing companies has a considerable impact on driving the adoption of digital technology [49].

The impact of a digital technology force is a crucial factor that affects the competencies of accountants in the manufacturing sector. It follows that accountants within this field will be more prone to developing the requisite skills and proficiencies to efficiently employ digital technologies in their respective roles. This, in turn, has a positive influence on their attitudes towards the changing roles, indicating a favorable perception and acceptance of the evolving responsibilities [50]. The positive attitude of accountants towards the changing roles in manufacturing companies was found to have an unstandardized coefficient of 0.73. This finding is similar to what is found from previous studies [51-53]. However, in the manufacturing sector, the correlation between digital technology and leadership was discovered to be feeble with an unstandardized coefficient of 0.08. It seems unlikely that the impact of digital technology on leadership practices in manufacturing is as substantial as in other sectors.

The unstandardized coefficient of 0.69 indicated that the retail and wholesale sector had the strongest relationship between digital technology force and leadership [54,55] among the three sectors. This highlights the significant influence of digital technology force on shaping leadership practices within the retail and wholesale industry. Furthermore, the strong relation between digital technology force and leadership in the retail and wholesale sector has a subsequent impact on the readiness of digital technology, as indicated by the rising unstandardized coefficient of 0.87. Therefore, the influence of digital technology force on leadership practices in the retail and wholesale

industry positively contributes to the readiness of digital technology adoption within these sectors.

In the service sector, the relationships between the latent variables were generally found to be at a moderate level, except for the relation between leadership and digital technology readiness, which exhibited a strong unstandardized coefficient of 1.31. This coefficient indicates a significant and influential connection between leadership practices and the readiness of digital technology adoption within the service industry. While the other relationships between latent variables may be considered moderate, they still contribute to the overall dynamics of the changing roles of accountants in the service sector. These moderate-level relationships highlight the interconnectedness of various factors, such as digital technology force, competencies, and attitude, in shaping the evolving responsibilities of accountants in the service industry. Table 2 provides a detailed summary of the findings.

TABLE 2: Latent variable path.

Industry	Path		
	DTF->CHR ⁽¹⁾	DTF->LDS->ATT->CHR ⁽²⁾	DTF->LDS->DTR->CPTC->ATT->CHR ⁽³⁾
Manufacturing	.31	.08 .03 .73	.08 .85 .44 .55 .73
Retail & Wholesale	1.23	.69 .26 .52	.69 .87 .42 .44 .52
Services	.55	.37 .92 .21	.37 1.31 .44 .12 .21

Source: Created by the authors

Note: Unstandardized coefficient, α .05

⁽¹⁾ Direct path from DTF to CHR

⁽²⁾ Indirect path from DTF to CHR mediating by LDS and ATT

⁽³⁾ Indirect path from DTF to CHR mediating by LDS, DTR, CPTC and ATT

In conclusion, the present study has furnished significant insights into the determinants that influence the changing functions of accountants in the modern era, with noteworthy repercussions for the durability of the accounting field in the imminent future. The examination of diverse sectors, encompassing manufacturing, retail and wholesale, and services. The study endows a fresh perspective to the comprehension of how variables such as digital technology compulsion, leadership, digital technology preparedness, competencies, and attitude affect the evolving roles of accountants. Through consideration of industry context, this study acknowledges that the influence of these factors can vary depending on the specific characteristics, requirements, and technological advancements within each sector [38]. By comprehending the sector-specific discrepancies in the relationships between digital technology, leadership, and

attitude, organizations and accounting professionals can proactively adapt to the changing landscape and guarantee the long-term sustainability of the accounting career profession [56, 57]. The adoption of digital technologies, cultivation of robust leadership practices, and enhancement of competencies and positive attitudes are fundamental strategies for accountants to prosper in the digital era.

The significance of industry context is underscored by the sector-specific dynamics of the evolving roles of accountants. Accounting professionals can gain valuable insights from these observations, which can aid in their navigation of the changing demands and challenges of their field. What separates this study from others is its investigation into the factors that shape the shifting roles of accountants in diverse sectors. As per our understanding, there have been minimal explorations undertaken on this particular research arena in the current literature. This study contributes to filling this research gap by investigating the differing dynamics of the changing roles of accountants across sectors, thereby providing new perspectives on the industry-specific elements that influence the evolving responsibilities of accountants. The comprehensive analysis of the factors that impact the changing roles of accountants in conjunction with the sector-specific variations is the unique contribution of this study. This research is valuable in that it highlights industry-specific variations, which can inform the design of tailored strategies by organizations, professionals, and policymakers to adapt to the changing landscape of the accounting profession. Finally, this analysis enhances our awareness of the stability of the accounting career in dissimilar organizational circumstances by unveiling original viewpoints into the factors that influence the changing roles of accountants within diverse sectors.

This study has yielded invaluable insights into the factors that shape the changing roles of accountants in the current era. Nonetheless, opportunities for further investigation exist to delve more deeply into this dynamic situation. A promising avenue for future research involves a comprehensive exploration of the specific competencies and skills that accountants must acquire in response to the ever-evolving technological and economic contexts. Additional research is necessary to investigate the particular competencies and skills that accountants must cultivate in response to the changing technological and economic environments. Furthermore, a detailed study of how organizational culture and structure influence the successful adaptation of accountants to their changing roles could provide valuable insights for practitioners and policymakers. Furthermore, a thorough analysis of how organizational culture and structure impact accountants' successful adjustment to their changing responsibilities

could offer essential insights to both practitioners and policymakers. Additional research is necessary to explore the particular competencies and skills that accountants must cultivate in response to the evolving technological and economic environments.

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