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IT Alignment and its Influence on Digital Transformation Success

Full research paper

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Abstract

Managing digital transformation is a complex enterprise dependent on various organisational, managerial, and technological factors. Among others, the influence of factors related to IT alignment on digital transformation is recognised. This study attempts to establish the significance of eight organisational and managerial factors (organisational agility, organisational structure, organisational culture, leadership skills, digital metrics, HR management, stakeholder relationships, and external domain alignment). Our aim is to investigate whether these factors' influence on IT alignment affects the success of digital transformation in public organisations. The proposed theoretical model was tested with data collected through an online survey from 402 leaders. The results suggest that IT alignment is positively associated with digital transformation success in public organisations. However, the PLS-SEM analysis reveals a varying degree of influence of the various organisational and managerial factors on IT alignment as organisations undertake digital transformation.

Keywords: Digital transformation, IT alignment, public organisations, public value theory, stakeholder theory, technology enactment theory.

1 Introduction

Digital transformation, defined as “*the IT-enabled change in organisations through the digitalisation of products, services, core processes, customer touchpoints and business models*” (Hartl and Hess, 2017, p. 3), has become invaluable in supporting organisations in many ways. The use of new digital technologies has facilitated the execution of innovative business models, improving the offering of value propositions. In a public organisation context, digital transformation has resulted in synchronised product-service combinations across the sector (Luna-Reyes and Gil-Garcia 2014; Mergel 2018). Regardless of sector or industry, the primary motivation for embarking on the digital transformation journey is that it shapes the communication between various stakeholders and determines the economic, social and political environment (Fischer et al. 2020). To successfully leverage the anticipated benefits of applying new technologies requires formulating and implementing appropriate strategies (Bharadwaj et al., 2013). As the literature suggests, digital transformation is an organisational-wide adaptation guided by the fit between IT strategy and the overarching organisational strategy, i.e., IT alignment (Benbya et al. 2019; Kahre et al. 2017).

Business-IT alignment (referred to as ‘*IT alignment*’ in this study), defined as the “*application of information technology in an appropriate and timely way, in harmony with business strategies, goals and needs*” (Luftman, 2000 p. 3), has been recognised as one of the top management concerns determining the success of digital transformation (Kahre et al. 2017). However, the extant literature indicates that the relationship between the two constructs has not been investigated sufficiently. For instance, the issues of IT alignment and digital transformation have not been analysed with due consideration of the organisational and managerial factors within the context of public organisations (Jedynak et al. 2021; Meijer and Thaens 2010). What is also missing from the literature is how organisations’ attempt to reach IT alignment affects the success of digital transformation. Thus, we concur with authors (e.g., Alvarenga et al. 2020; Yeow et al. 2018) suggesting further studies citing the significance of the relationship between IT alignment and digital transformation as well as the nuanced differences between private and public organisations. To address the gaps in the extant literature, this study set out to provide an answer to the following research questions:

RQ1: *Which organisational and managerial factors significantly influence IT alignment in public organisations undertaking digital transformation?*

RQ2: *To what extent does IT alignment influence the success of digital transformation in public organisations?*

This paper is structured in five sections. In the second section, we briefly discuss digital transformation and IT alignment studies within the public sector context. Subsequently, we propose our theoretical research model and present the corresponding hypotheses posited. The third section presents our research methodology. The results section briefly discusses the result of our evaluation of our measurement- and structural models. The contribution and limitations of our study will be presented in the discussion and conclusion section.

2 Theoretical foundation

2.1 Digital transformation in the public sector

The continuous attention towards digital transformation in the public sector marks the recognition of the power of information technology to promote the transformation of governments at different levels (Luna-Reyes and Gil-Garcia 2014). The embeddedness of information technology is now triggering a set of profound organisational changes in response to the dynamic social, technological and business landscape. Yet, there is little agreement among researchers on what digital transformation entails and how private and public organisations should pursue it (Mergel et al. 2018). The challenge, however, is more pronounced in public organisations as they plan and execute digital transformation (Jonathan 2019; Plesner et al. 2018).

Three theories appear in recent Information Systems (IS) literature as scholars explore the best ways of managing digital transformation in the public sector and realise the anticipated benefits. The technology enactment theory (Fountain 2004), stakeholder theory (Freeman 2010), and public value theory (Moore 1995) help us to understand better the context of the public sector about its adoption and use of technology. Mainly, the recognition of the importance of managing fundamental change processes in various organisational settings was missing from the extant literature. Changes within a public organisation affect the design, production and delivery of public services (Mergel et al. 2018; Mu et al. 2022). The technology enactment theory underscores how meanings are assigned to technologies in

organisations. In other words, deploying new technologies could result in conditions where their use is intended and perceived differently.

We highlight two fundamental differences between public and private organisations as we explore the approaches to successful digital transformation—the antecedents and the expected outcomes. Plesner et al. (2018) argue that digital transformation can be best understood and managed when public organisations are studied with consideration for the internal processes, bureaucratic formal structure and accountability issues. Regarding the expected outcomes, Mergel et al. (2018) argue that in public organisations, digital transformation creates added public value—in the form of protection and management of public goods, emphasising accountability, the rule of law and fairness. This contrasts with the New Public Management (NPM) view, where transformation outcomes in public organisations are expected to be business-like enterprises (Di Mauro et al. 2021). Thus, public value theory (Moore 1995) provides another perspective on organisation-wide changes and the application of technologies to create value while maintaining stability and order. However, the involvement of internal and external stakeholders is necessary to exploit the benefit of digital transformation fully. Unfortunately, as a sector with a pluralistic context—characterised by multiple stakeholders with diverse or opposing objectives—many digital transformation initiatives have suffered (Pittaway and Montazemi 2020). Stakeholder theory (Freeman 2010) provides a perspective to appreciate and explore ways of managing relations in pursuit of the common goal. For instance, intra-governmental collaborations, cooperation with private businesses, and participation of citizens in public decision-making are essential (Luna-Reyes and Gil-Garcia 2014; Panagiotopoulos et al. 2019).

2.2 IT Alignment in public organisations

The complex nature of public organisations (i.e., the presence of multiple stakeholders with varying interests exhibiting inherent administrative and political tensions) has implications on how organisations approach digital transformation. Particularly, formulating IT- and overall organisational strategies that can meet the expectations of the diverse stakeholders is difficult (Plesner et al. 2018; Winkler 2013). According to prior case studies, the application of emerging technologies to solve complex public administrative tasks (i.e., by planning and executing the necessary organisational changes) has raised many unanswered questions (Lindgren et al. 2021; Mu et al. 2022). However, current research provides evidence that reaching and maintaining IT alignment helps organisations succeed in their digital transformation endeavours (Kahre et al. 2017; Luftman et al. 2017). The literature also suggests that organisations that scored low in their IT alignment struggle to succeed in their digital transformation attempts (Benbya et al. 2019; Jonathan 2019). In the public sector context, digital transformation success is the extent to which the application of new technologies results in improved operational efficiency, the optimal relationship between stakeholders, and the creation of added value for citizens (Luna-Reyes and Gil-Garcia 2014; Mergel et al. 2019; Panagiotopoulos et al. 2019). The significance of IT alignment facilitating the integration and adaptation of emerging technologies with the existing organisational and managerial setup is also recognised (Rahimi et al., 2016). Thus, we propose that:

H1: *IT alignment is positively associated with digital transformation success.*

On the other hand, we argue that exploring the various factors influencing the degree of IT alignment in organisations undertaking digital transformation is paramount. Given the paucity of knowledge on IT alignment and digital transformation in the public sector (Alvarenga et al., 2020; Mergel et al., 2018; Plesner et al., 2018), empirical studies in the sector are necessary to further our understanding. A closer look into prior studies suggests that the various factors related to IT alignment must be reconsidered with continuous organisational changes in mind as organisations embark on their digital transformation journey (Kahre et al. 2017). For convenience, these factors are categorised and presented as organisational, management and leadership-related factors. While organisational factors cover overall organisational attributes, the leadership and management factors are those related to the choices and practices that reflect leaders' approaches towards IT alignment during digital transformation.

2.2.1 Organisational Factors

As emerging technologies get introduced into the operations of many organisations, aligning these technologies with business goals has become problematic. Notably, organisations in the public sector have to work towards the appropriate use of IT for the public good (Luna-Reyes and Gil-Garcia, 2014). For instance, organisations interested in digital transformation need effective strategies and a structure that facilitates knowledge sharing, skills development, and effective decision-making. Besides, IT alignment also requires a structure facilitating overall communication between the IT and remaining units (Chan 2008; Jonathan et al. 2018). Thus, we posit the following.

H2: *Organisational structure is positively associated with IT alignment.*

Studies in the IS and cognate disciplines have also recognised the vital role of organisational culture. With digital transformation in focus, organisations benefit from embracing a culture that encourages risk-taking behaviour, innovative mindset and digital commitment (Fischer et al. 2020; Hartl and Hess 2017). Besides, an empirical study in a government agency found that organisational culture played an important role in IT alignment and maturity. According to Brunetti et al. (2020), organisational culture is one of the enablers of the efficient application of IT, fostering new and participatory leadership models, supporting change management, and favourable human resource practices. Thus, we propose the following.

H3: *Organisational culture is positively associated with IT alignment.*

One of the topics that surfaced recently in the IS literature, together with IT alignment and digital transformation, is organisational agility. The issue referred to as agility-paradox—a situation where the efforts to reach and maintain IT alignment create rigidity of IT and organisational structure—has raised concerns (Jonathan et al. 2020; Jonathan et al. 2021a). However, researchers have a growing consensus that organisational agility (i.e., flexibility in organisational structure and work processes) improves IT alignment (Bitzer et al. 2021; Fischer et al. 2020). Thus, we propose the following.

H4: *Organisational agility is positively associated with IT alignment.*

2.2.2 Leadership and management-related factors

Schiuma et al. (2021) argue that today's organisations are expected to become flexible, resilient and innovative to meet the challenges of unpredictable changes. Thus, digital transformation is viewed as a means to support such aspirations. However, this development has also raised the bar for those who want to assume leadership positions for two reasons. Firstly, applying IT to existing processes often requires big decisions affecting the entire organisation. Secondly, the skill sets, attitudes, preferred management styles, and behaviours of leaders could also affect how IT is used and perceived in the organisation (Luftman et al. 2017). A review of prior studies (Jonathan et al., 2021b) found that the extent leaders attempt to acquire multiple 'digital leadership' skills is invaluable to reaching IT alignment. Such skill sets as digital strategy formulation, digital literacy and domain knowledge, emotional intelligence, and conversational competency are essential during digital transformation. For instance, digital literacy and domain knowledge come in handy to make informed IT investment decisions. Adopting digital metrics—using digital tools to measure the value of IT investment—(Luftman et al. 2017) might be easier when leaders possess the right skill sets. According to Jedynak et al. (2021), appraisal of the value of investment ensures the IT expenditure is justified and aligned with organisations' IT needs and goals. Taken together, we propose the following.

H5: *Leadership skills is positively associated with IT alignment.*

H6: *Leadership skills is positively associated with the use of digital metrics.*

H7: *The use of digital metrics is positively associated with IT alignment.*

As the primary objective of digital transformation within the public sector is to create added value for citizens (Panagiotopoulos et al. 2019), leaders are expected to manage the collaboration between partner organisations and other stakeholders. Relationship management skills in the public sector are critical given the long list of stakeholders. Besides, maximising value requires integrating public services that can be improved through favourable relationships (Mergel et al. 2018). The importance of stakeholder relationships in reaching IT alignment is established in the literature (e.g., Winkler 2013). Taken together, we propose the following:

H8: *Leadership skills is positively associated with stakeholder relationships.*

H9: *Stakeholder relationships is positively associated with IT alignment.*

External domain alignment—the compatibility of various organisational and leadership factors between collaborating organisations and the external environment (Benbya et al. 2019; Jonathan et al. 2021b) is also attracting the attention of many. The argument is that internal organisational factors alone could not provide leaders with the resources they need to align IT use with organisational objectives. Particularly, those undertaking digital transformation need to monitor the external technological, political, and business landscape (Lindgren et al. 2021; Mu et al. 2022). This consideration helps organisations articulate their IT needs, seize potential opportunities and meet the threats (enabling IT alignment). Thus, we propose the following.

H10: *Stakeholder relationships is positively associated with external domain alignment.*

H11: *External domain alignment is positively associated with IT alignment.*

Despite the continued focus on the technological aspects of digital transformation, the significance of the human resources issues has not attracted sufficient attention. However, the lack of knowledge seems to be pronounced in the public sector. According to Brunetti et al. (2020), public organisations are falling behind in attracting and retaining competent personnel and in some areas of skills development. However, appropriate human resources management was one of the determinants of proper IT use to meet organisational objectives (Luftman et al. 2017; Pittaway and Montazemi 2020). It is also evident that IT alignment approaches in organisations during digital transformation require transparent recruitment, remuneration, and training and development programmes (Fischer 2020; Jedynak et al. 2021). Thus, we posit the following.

H12: *HR management practices influence the degree of IT alignment.*

2.3 Research Model

The theories mentioned above—technology enactment theory, stakeholder theory, and public value theory—can help us illustrate how the various organisational and managerial factors influence IT alignment as public organisations during digital transformation. As shown in Figure 1, our eight constructs focus on IT applications in public organisations to create public value. This is a departure from the resource-based view debates in the extant literature. Those subscribing to the theory argue that IT alignment’s benefit must be assessed as to whether it results in a strategic advantage creating unique and challenging-to-imitate capabilities (Chan and Reich 2007). However, we argue that this view does not reflect the realities of today’s public organisations. According to the technology enactment theory (Fountain 2004), the organisational settings of the public sector determine how well new technologies are enacted. This, in turn, determines how the application of technologies is matched with the needs of public organisations. Besides, the management practices and leaders’ views on how value is created in public organisations have implications for IT alignment. In contrast with the private sector, public value theory (Moore 1995) informs us how the outcomes of technology use could be measured.

On the other hand, one of the rationales for digital transformation is the role it plays in changing the relationship between public organisations and citizens and private businesses. Stakeholder theory (Freeman 2010) also informs us how a relationship with internal and external relations can enable the deployment of IT that meets the overall organisational objective. According to Jonathan et al. (2021a), appropriate stakeholder relationships also improve IT alignment in public organisations.

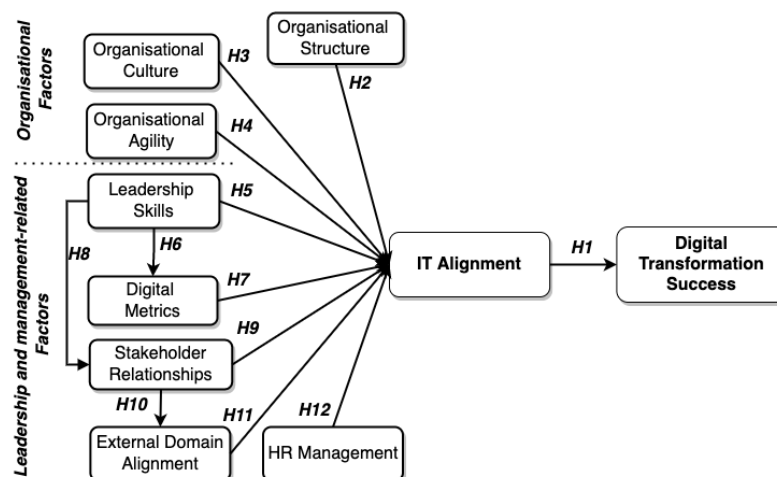


Figure 1. The research model.

As shown in Table 1, the measurement items used to test the relationship between our ten constructs were derived from the extant literature. We formulated only three measurement items for each one of the ten constructs. However, IT alignment was assessed based on SAMM’s (Luftman’s et al. 2017) six dimensions widely used among IS researchers. Instead of using more items for the other nine constructs, we used already established items in the literature, consulting multiple sources. For all measurement items, we formulated a single question which requires an answer based on a seven-point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree).

Constructs	Measurement Items (sources)
Digital Metrics (DMT)	Outputs, outcomes, impact (Mergel et al. 2018; Panagiotopoulos et al. 2019)
Digital Transformation Success (DTS)	Operational efficiency, value creation, and improved relations (Luna-Reyes and Gil-Garcia 2014; Mergel et al. 2019; Panagiotopoulos et al. 2019)
External Domain Alignment (EDA)	IT infrastructure and processes, organisational culture, and legislations (Avila et al. 2018; Schmidt et al. 2017)
HR Management (HRM)	Hiring, incentive structure, and knowledge management (Barthel 2021; Bitzer et al. 2021; Luftman et al. 2017)
IT Alignment (ITA)	Communications, dynamic IT scope, IT governance, partnering, skills development, and value analytics (Luftman et al. 2017)
Leadership Skills (LSK)	Digital leadership, transformative leadership, and conversational competencies (Cámara et al. 2018; Schiuma et al. 2021)
Organisational Agility (OAG)	Flexible IT infrastructure, scalable workforce, rapid organisational learning (Nijssen and Paaue 2012; Tallon and Pinsonneault 2011)
Organisational Culture (OCL)	Openness to change, acceptance of failure, and innovative behaviour (Barthel 2021; Fischer et al. 2020)
Organisational Structure (OST)	Centralisation, formalisation, and hierarchy (Chan 2008; Fischer et al. 2020; Pennings 1973)
Stakeholder Relationships (SRL)	Citizens' involvement, collaboration with suppliers, and inter-governmental relations (Luna-Reyes and Gil-Garcia 2014; Mergel et al. 2018; Winkler 2013).

Table 1. Constructs and corresponding measurement items.

3 Research Methodology

3.1 Research Strategy

Survey as a research strategy is deemed appropriate to meet the aim of this study—establishing the influence of various organisational and managerial factors on IT alignment in organisations undertaking digital transformation. In contrast with other research strategies, surveys are best suited to test hypothesised relationships and theoretical models using a large amount of quantitative data (Denscombe 2017; Newsted et al. 1998). IT alignment and digital transformation studies (e.g., Cámara et al. 2018; Schmidt et al. 2017) have also been conducted using a survey research strategy.

3.2 Data Collection Method

We collected survey data from a selected sample of experts in the Ethiopian public sector since our theoretical model was developed partly based on the findings of a qualitative study conducted in the same country. Following the suggestion of prior IT alignment studies (e.g., Chan 2008; Luftman et al. 2017), leaders from the IT and administration sides were targeted for the survey (See table 2).

Role (Positions)	n	%	Organisational Size (Number of employees)	n	%	Age	n	%
Executive	58	14.4	100-250	42	10.4	31-40	129	32.1
Middle management	191	47.5	251-1000	217	54.1	20-30	56	13.9
Team leader	110	27.4	1001-5000	61	15.2	31-40	129	32.1
			>5000	82	20.4	41-50	145	36.1
Organisation Type	n	%	Sex	n	%			
Regional government	75	18.7	Male	266	66.2			
City administration	82	20.4	Female	136	33.8			
Ministry	149	37.1						
Public University	46	11.5						
Justice	27	6.7						
Other	23	5.7						

Table 2. Demography of our respondents, their role and organisational affiliation.

Probability sampling was deemed inappropriate for our study, given our specific area of study. Thus, only respondents expected to possess IT alignment and digital transformation knowledge were recruited i.e., based on their functional roles within their respective organisations (Denscombe 2017).

The online survey questionnaire was pre-tested with a sample of 25 leaders randomly selected from three public organisations. Minor revisions were made to address identified issues with the questionnaire before the active link of the survey was sent to 589 selected experts. In addition to the demographic questions, we included a dummy question to exclude unserious responses. The online survey, active for 45 days, resulted in 402 complete questionnaires with a response rate of 68 per cent.

3.3 Data Analysis Method

Partial Least Structural Equation Modelling (PLS-SEM) was adopted to analyse the quantitative data. PLS-SEM was deemed appropriate for our study since we aim to estimate the influence (i.e., casual prediction) of various organisational and managerial factors on IT alignment. The operationalisation of our constructs with formative measures. In contrast with reflective measures (i.e., unidimensional), our choice of formative measures was justified since we are interested in capturing the different aspects of the organisational and managerial factors (Petter et al. 2007).

As suggested in the literature (Hair et al., 2019), the data analysis was conducted in two steps—evaluation of the measurement model followed by an assessment of the structural model. Since our constructs are all formative, we evaluated convergent validity, indicator collinearity, statistical significance (), and relevance of the indicator weights. In the second step, we assessed the structural model by applying three criteria—collinearity, the model's predictive power, statistical significance and relevance of path coefficients. Version 3.3.9 of SmartPLS software was used to run the analysis (Ringle et al. 2015).

4 Results

Our analysis started with estimating the path coefficients and assessing the collinearity statistics. As we ran the PLS-SEM algorithm, we selected a path-weighting option with maximum iterations of 10000. In the next step, we did a bootstrapping with the same maximum iterations to calculate significance. The result of the PLS-SEM analysis is shown in Figure 2.

4.1 Measurement Model

We started examining the measurement models by computing the collinearity statistics of the items. As suggested in the literature (Hair et al. 2019), the variance inflation factor (VIF) was used to measure collinearity. Our aim is to determine whether the other formative indicators related to the same construct may affect any formative indicator. The VIF value was calculated for each of the indicators. We note that a VIF value of 5 or higher indicates a potential collinearity issue. Since none of the VIF values of our indicators is over 5, we are satisfied that there is no collinearity issue.

The next step in our analysis was to examine the statistical significance and relevance of the indicator weights. This was done by examining the *t*-values for the indicator weights. The study showed that the weight in 27 of the 33 items seemed to be significant at 1%, standing above the threshold of 2.576. Hair et al. (2019) suggest that an indicator weight which is not significant should not necessarily be considered to exhibit evidence of poor quality. Accordingly, we assessed the six formative indicators' absolute contribution to their respective constructs. Since the outer loadings of these indicators were above .50, we are satisfied that they sufficiently contribute to the construct. Thus, we retained all the indicators, and no collinearity issues were encountered.

4.2 Structural Model

Since the measurements of our constructs seemed to be valid, we continued assessing the structural model. The first step in the analysis is to assess collinearity by looking into the computed value of VIF. VIF values of the predictor constructs over 5 indicate collinearity issues. Since all values are lower than the threshold of 5, we are satisfied that no further measure is necessary. In the second step, we tested the predictive power of our model. In contrast with other structural equation modelling techniques, PLS estimates are based on the variance explained (Wong 2013). We assessed R^2 to test the hypothesised relationships of the theoretical model (Figure 1). According to Hair et al. (2019), R^2 values range from 0 to 1 indicating the model's explanatory power (i.e., 0.75 = substantial, 0.5 = moderate, and 0.25 = weak). As shown in Figure 3, the model seems to substantially explain the variances of the two constructs (i.e., stakeholder relationships = 78.4%, IT alignment = 77.5%). The variance for external domain alignment

and digital transformation success (i.e., 68.8% and 61.9%) seem moderate. On the other hand, the model accounted for 38.1% of the variance for digital metrics, which is weak.

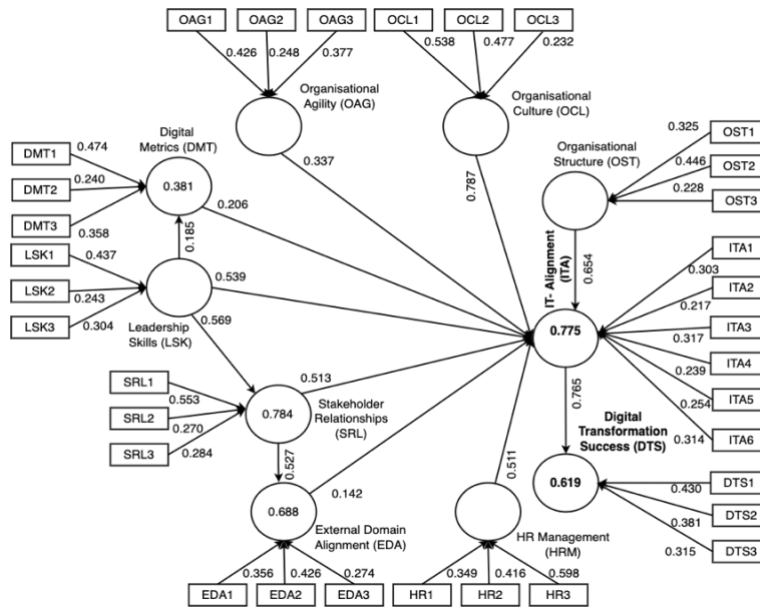


Figure 2. Results of the structural model evaluation.

In the third step, path coefficients’ statistical significance and relevance were evaluated. Path relationships explain the strength of the effect one variable has on another. According to Cohen (2013), the power of the prediction as measured by path coefficients might be strong (0.5 or higher), moderate (higher than 0.3, but less than 0.5), or small (higher than 0.1 but less than 0.3).

Hypot. & Path	Path Coef. (β)	P-Value	Decision	Hypot. & Path	Path Coef. (β)	P-Value	Decision
H1: ITA→DTS	0.765	0.000	accepted	H7: DMT→ITA	0.206	0.000	accepted
H2: OST→ITA	0.664	0.002	accepted	H8: LSK→STR	0.569	0.000	accepted
H3: OCL→ITA	0.787	0.000	accepted	H9: STR→ITA	0.513	0.002	accepted
H4: OAG→ITA	0.337	0.000	accepted	H10: STR→EDA	0.527	0.000	accepted
H5: LSK→ITA	0.539	0.007	accepted	H11: EDA→ITA	0.142	0.002	accepted
H6: LSK→DMT	0.185	0.001	accepted	H12: HRM→ITA	0.511	0.001	accepted

Table 3. Outcomes of structural equation model analysis.

As shown in Figure 2 and Table 2, all paths in our theoretical model are significant. Thus, our theoretical model is supported. However, the degree of influence seems to vary. For instance, organisational culture strongly influences IT alignment, followed by organisational structure, leadership skills, stakeholder relationships and HR management. On the other hand, the influence of organisational agility, digital metrics use, and external domain alignment seem to be small. In addition to the hypothesised path relationship it has with IT alignment, leadership skills seem to have a strong influence on stakeholder relationships. However, its association with digital metric use is small. The strong influence of stakeholder relationships on external domain alignment is also observed.

5 Discussion and Conclusion

This study set out to contribute to the scant literature on digital transformation and IT alignment. Even though the two topics have garnered the attention of many, there seems to be a lack of appreciation for the sectoral and various organisational differences in prior studies (Plesner et al. 2018). On the other hand, a close look into the extant literature indicates a lack of overlap of studies on the two topics. For instance, even though IT alignment and digital transformation have been recognised as related topics, to the best of our knowledge, no studies have explored how public organisations should approach IT

alignment while undertaking digital transformation. To address this gap in the literature, we used three theories justifying how organisational and managerial factors in public organisations warrant a fresh investigation.

In response to the first research question, we have established that the strong influence on IT alignment was found to be from **organisational culture** ($\beta=0.787$), **organisational structure** ($\beta=0.664$), **leadership skills** ($\beta=0.539$), **stakeholder relationships** ($\beta=0.513$), and **HR management practices** ($\beta=0.511$). The effect of the remaining three factors on IT alignment was moderate (i.e., **organisational agility** with $\beta=0.337$) and small (i.e., **digital metrics use** with $\beta=0.513$ and **external domain alignment** with $\beta=0.513$). Nevertheless, our results show that all hypotheses are supported. Besides, we have also established the relationship between some of the factors. **Leadership skills** was related to **stakeholder relationships**, which, in turn, affects **external domain alignment**. The study has also revealed interesting findings that are contradictory to prior research. For instance, the influence of **external domain alignment** on IT alignment was found to be strong in public organisations (Lindgren et al. 2021; Mu et al. 2022; Schmidt et al. 2017). However, our analysis suggests it has the least influence on IT alignment. Besides, prior research on the relationship between **organisational agility** and IT alignment provides contradictory findings (Tallon and Pinsonneault 2011; Jonathan et al. 2021a). However, our results indicate that **organisational agility** moderately influences IT alignment. This is consistent with another study investigating IT alignment and organisational agility in the public sector (Jonathan et al. 2021a). In response to our second research question, we have found that the influence of IT alignment on digital transformation success is strong ($\beta=0.765$), with the model explaining 61.9%.

Our findings contribute to the IT alignment and digital transformation studies in the public sector. With regards to research, we argue that our findings could be a starting point for further studies. Possible point of departure could be investigating the factors that strongly influence IT alignment. For instance, how can public organisations design and implement favourable organisational structures or adopt HR management practices to improve IT alignment?

The managerial implications of this research might be an appreciation for the various factors that influence IT alignment. Given the strong positive causal relationship between IT alignment and digital transformation, leaders need to allocate their resources to pursue IT alignment. Thus, the level of strengths of the influences we established can be informative.

The findings of our study should be interpreted with caution, considering the limitations. Our evaluation is based on cross-sectional survey data on how various factors influence IT alignment. Applying the same analysis method, longitudinal data might have resulted in a different observation. Managing the activities related to IT alignment and digital transformation in the current dynamic environment can be challenging. Thus, evaluating these factors as internal and external environments change could provide invaluable insights. The other limitations are related to our sampling strategies. As respondents were selected non-randomly, the final list might be based on bias affecting the result of our study. Besides, since the data was collected in Ethiopia, the responses might be culturally biased. Future studies might be conducted in similar public organisations in other countries.

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