Leadership dimensions and behaviors in business schools’ forced digital transformation

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INTRODUCTION

The digital transformation in business schools during the COVID-19 pandemic is unique since external factors, not internal initiatives, drive it. This event is called ‘forced digital transformation.’ It raises new challenges for business schools to ensure that the transformation continues in the future since the post-pandemic situation has encouraged social and economic activities to return offline. As the situation begins normal, less external pressure can result in declining creative initiatives from business schools to explore more opportunities from digital technologies. Consequently, the digital transformation process that started during the pandemic could stagnate. One of the essential factors that play a role in encouraging continuous digital transformation is leadership. Leadership is believed to be the core of every digital innovation process. However, research investigating the role of leadership in business schools’ digital transformation during the COVID-19 pandemic is still limited. Therefore, this study aims to describe leadership’s role in structural and behavioral changes during forced digital transformation in business schools by applying a systematic literature review.

INTRODUCTION

Digital Transformation has become a buzzword since the rapid development and diffusion of many digital technologies (Klein, 2020). The power of digital technology has attracted many organizations—private and public—to adopt it in various activities (Hai, et al., 2021). Kaur and Bath (2019) mention at least four benefits that can be internal triggers of digital transformation: cost reduction, an increase in accuracy, speed improvement, and efficiency. External situations such as technological developments, competition, and changes in consumer behavior can also be reasons for an organization to carry out digital transformation (Verhoef et al., 2021).

Opportunities promised by digital technology have led some organizations to adopt it voluntarily. As a result, transformations in the form of new business models, growth strategies, value chains, customer engagement tactics, or organization designs occur within organizations adopting digital technology (Gupta, 2018). Some organizations even go further by appointing special leaders for navigating the digital transformation process (Kessel and Graf-Vlachy, 2021; Kunisch et al., 2020; Firk et al., 2021). This type of digital transformation tends to be done systematically and emerges from the initiatives of top leaders within the organization. Expert calls this ‘planned digital transformation’ (Philips, 2021).

However, the substantial benefits do not guarantee that all organizations voluntarily carry out digital transformation. Before the COVID-19 pandemic, complacency inhibited digital transformation more than any other organizational barrier. A survey conducted by Fitzgerald et al. (2013) in higher education discovers that lack of urgency is the biggest single obstacle to digital transformation.
And then, all of a sudden, the world is shocked by the COVID-19 outbreak. It has disturbed many things and has forced humans to adopt new kinds of behaviour (Jens and Gregg, 2021). Nevertheless, behind the anxieties that have arisen from this pandemic, there are also blessings in disguise. One of the biggest opportunities created by the pandemic is a burning platform for digital transformation. A survey conducted last year by McKinsey & Company reported that during COVID-19 digital adoption has taken a quantum leap at both the organizational and industry levels (LaBerge et al., 2020).

Massive technology adoption driven by the COVID-19 pandemic is called ‘forced digital transformation.’ In a forced transition, organizations tend to do so in an unscheduled manner and have no strategic direction. Other characteristics are a reactionary attitude and a lack of willingness from leaders in the organization to carry out technology innovation (Philips, 2021). Digital transformation in higher education during the COVID-19 pandemic is categorized into this type. The impact and magnitude of the COVID-19 pandemic forced many higher education institutions across the globe to attempt to do class online and make quick adjustments to sustain operations by utilizing digital technology (Marks et al., 2020).

As part of higher education institutions, business schools also face similar challenges. The process of adopting digital technology in business schools during the COVID-19 pandemic is also categorized as ‘forced transformation.’ However, business schools have characteristics that distinguish them from other faculties in higher education institutions (Kotula et al., 2021; Thomas, et al., 2013). For this reason, there needs to be research that specifically examines the phenomenon of digital transformation in business schools.

With a large number of study programs and students in the business field in Indonesia, the need for this research is becoming increasingly urgent. Based on data from the Directorate General of Higher Education, Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia (2020), 12% of higher education institutions in Indonesia have offered business and economic study programs. Whereas in the same year, 20.89% of higher education students enrolled in business and economy programs. More specifically, the management/business study program has the highest number of students at the undergraduate and master's degree programs. In almost all islands in Indonesia—except Maluku—management/business is also the most popular study program for students (Directorate General of Higher Education, 2020).

However, literature related to digital transformation challenges in higher education institutions and business schools, specifically within developing countries, is scarce (Marks et al., 2020). There is even less research discussing the role of leadership in navigating digital transformation in business schools. In fact, in crisis-driven or forced digital transformation—as happened in almost all business schools during the COVID-19 pandemic—an important factor influencing this process's success is leadership (Bartsch et al., 2021).

Effective leadership will be able to guide an organization to a more advanced stage of digital transformation (Porfírio et al., 2021). Joas et al. (2020) even state that leadership is not only a facilitator of digital innovations, but it is also at the heart of them. In another word, the core of every digital innovation is leadership.

This is the research gap highlighted in this study. By understanding the central role of leadership in digital transformation, business schools will be able to maintain and develop the technology adoption process and behavioral changes that have been carried out. Initiatives that have been started during the pandemic should not lead to stagnation.

The objectives of the research are: a) to investigate the role of leadership during forced digital transformation in business schools; b) to explore structural and behavioral changes during forced digital transformation in business schools; and c) to validate the proposed conceptual framework on leadership and its impact on structural and behavioral changes during forced digital transformation in business schools.

This research has some novelties and originalities compared to other studies on digital transformation. First, studies that discuss the causal relationship between leadership and digital transformation almost entirely take companies (business institutions) as the unit of analysis, rarely focusing on educational institutions. Second, although several studies discuss the relationship between leadership and digital transformation in business institutions, those that comprehensively examine the role of leadership dimensions (covering intellectual, emotional, and spiritual dimensions) and leadership behaviors (relationship-oriented behaviors and task-oriented behaviours) do not exist.

The digital transformation in higher education institutions and business schools during the COVID-19 pandemic has a special character: ‘forced,’ not ‘planned’ (Philips, 2021; Marks, 2020). Few previous studies related to digital transformation have highlighted the differences between the two and their consequences for the role of leaders in organizations. Therefore, another novelty of this research is its situational context, which highlights the role of leadership dimensions and leadership behaviors in the forced digital transformation that occurred in business schools during the COVID-19 pandemic.

**Literature Review**

Digital transformation is a complex and interdisciplinary issue (Furjan, Tomičić-Pupek and Pihir, 2020). Therefore, this review will only discuss the role of leadership in digital transformation, especially in business schools, so that the topic is more focused. By avoiding too broad or too specific issues, the search results obtained will also be more appropriate (not too many and not too few) (Stern et al., 2014).
Definition and Drivers of Digital Transformation

By its nature, a digital transformation is a form of strategic change within an organization (Trenerry et al., 2021; Balogun and Hailey, 2009). However, the existence of a major role in technology has distinguished digital transformation from other forms of strategic change (Gfrerer et al., 2021). Several authors have defined digital transformation from the perspective of business. Verhoef et al. (2021) summarize that digital transformation is a company-wide change that leads to the development of new business models, which provides a much greater added value for organizations.

The development of digital technology such as artificial intelligence, big data, 3D printing, robotics, and cloud computing is one of the factors that can encourage digital transformation (Trenerry et al., 2021). However, another study explains that advanced technology development sometimes does not directly create the need for digital transformation. Organizations do not automatically adopt new technologies when they become available in the market. Often the need to carry out new digital transformations arises because of competition and changes in consumer behaviour that have changed dramatically due to digital technology (Verhoef et al., 2021; Kotler et al., 2017).

Digital transformation can also be accelerated because of major events that force people and organizations to adopt digital technology. Based on their research in service sectors, Oliveira and Martins (2010) conclude that external pressures are among the most powerful drivers of digital transformation. The COVID-19 pandemic that shook the world at the end of 2020 was an example of another driver that forced humans to embrace digital technology to a more advanced level (Philips, 2021). Acceleration of digital transformation occurs at the individual, organizational and industrial levels during the COVID-19 pandemic (LaBerge et al., 2020).

Types of Digital Transformation

By its nature, digital transformation is a form of strategic change within an organization (Balogun and Hailey, 2009; Trenerry et al., 2021). However, the existence of a major role from technologies has distinguished digital transformation from other forms of strategic change (Gfrerer et al., 2021). The development of digital technology such as artificial intelligence, big data, 3D printing, robotics, and cloud computing is one of the factors that can encourage digital transformation (Trenerry et al., 2021).

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Based on the type of driver and the organization’s response, digital transformation can be classified into ‘planned digital transformation’ and ‘forced digital transformation’ (Philips, 2021). The two differ not only in their catalyst (Woerkum et al. (2011), but also in terms of degree of voluntarism, technology sophistication, and attitudinal factors (Philip, 2021). In addition, the suitable leadership styles are also different (Stoker et al., 2019).

Meanwhile, based on the dimensions, Philip (2021) explains that digital transformation dimensions include structural and behavioral changes. Structural changes involve updating tools, business processes, and standard operating procedures. Meanwhile, behavioral changes involve organizational members’ readiness for change and increased cross-functional collaboration.

<table>
<thead>
<tr>
<th>Degree of Readiness</th>
<th>Planned DT</th>
<th>Forced DT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preparation</td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td>Drivers</td>
<td>Internal factors (Language and practices)</td>
<td>External factors (External events)</td>
</tr>
<tr>
<td>Level of Technology</td>
<td>Current technology level to the highest sophisticated level</td>
<td>Current technology level to next higher level</td>
</tr>
<tr>
<td>Time factor</td>
<td>Within months or a year</td>
<td>Within hours or days</td>
</tr>
<tr>
<td>Attitude of followers</td>
<td>Positive or negative</td>
<td>Negative</td>
</tr>
<tr>
<td>Leadership style</td>
<td>More participative</td>
<td>More directive</td>
</tr>
</tbody>
</table>

**Source:** Philips (2021); Stoker et al. (2019); Woerkum et al. (2011); Govindarajan & Srivastava (2020).

Research and Methodology

This study uses a systematic literature review approach. The main source used to collect references is the Scopus database, one of the most widely used sources of scientific literature (Zupic and Cater, 2015). Various terminologies are used to increase the possibility of getting relevant references. The keywords used in the search are a combination of “digital transformation”, “digitalization”, “digitization”, and “digital” with “leadership”, “leader”, “manager”, “chief”, “director”, “principal”, “rector”, and “dean” (Table 2).
Table 2: Keywords in the Search Process

<table>
<thead>
<tr>
<th>Keywords</th>
</tr>
</thead>
<tbody>
<tr>
<td>“digital transformation” OR “digitalization” OR “digitization” OR “digital” &amp;</td>
</tr>
<tr>
<td>“leadership” OR “leader” OR “manager” OR “chief” OR “director” OR “principal” OR “rector” OR “dean”</td>
</tr>
</tbody>
</table>

In addition to the keyword "digital transformation", this research also uses other terms such as "digitalization" and "digitalization." Although these concepts have different definitions and scopes (Wessel et al., 2021), their usage is sometimes interchangeable (Marks et al., 2020). The use of a few additional words as synonyms of "leader" is intended to broaden the search process to include relevant research titles with a wider variety of keywords (Rowley and Slack, 2004). For example, a search process using the keyword "chief" managed to find several articles related to the Chief Digital Officer. This new role appears at the C-Level regarding the implementation of digital transformation within the company (Singh and Hess, 2017). The use of the keywords "rector" and "dean" refers to terminology that describes the strategic position in higher education institutions, especially business schools (Kotula et al., 2021). This review also conducts a backward search to identify relevant studies cited by the journal articles (Webster and Watson, 2002). Using the list of references at the end of the article is an effective way to find these additional pieces of literature (Xiao and Watson, 2019). The literature search and screening process is carried out through several stages as follows:

i. First screening is carried out regarding:
   a. selection of keywords in title and abstract
   b. selection of time frames (2011-2021)
   c. selection of sources type (academic journal) and
   d. selection of language (English).

ii. The second screening is carried out by:
   a. reading the title and abstract thoroughly to find articles that discuss the role or relationship of leadership with digital transformation
   b. selecting only journals using individual and organization units of analysis (excluding industry and country-level analysis); and
   c. eliminating article duplications.

iii. Backward search is done by checking the list of references from articles that pass the second screening to get additional literature.

iv. Final screening, carried out by reading each article in detail to ensure that “leadership” and “digital transformation” appear in the research questions, hypotheses, constructs, or research models used.

Figure 1 summarizes the literature screening process based on the stages that have been discussed previously. As the final result, 45 journals were obtained for further analysis.
Findings

Previous studies can be summarized in table 3 below. The purpose of using this kind of table is to view each piece of literature through the same lens (Imel, 2011).

Table 3: Research’s State-of-The-Art (SOTA)

<table>
<thead>
<tr>
<th>Ref</th>
<th>Leadership Dimensions</th>
<th>Leadership Behaviours</th>
<th>DT</th>
<th>CONTEXT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intellectual Dimensions</td>
<td>Emotional Dimensions</td>
<td>Moral Dimensions</td>
<td>Task-Oriented Behaviours</td>
</tr>
<tr>
<td>Other Studies</td>
<td>Only partially cover these issues</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>This Study</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td>V</td>
</tr>
</tbody>
</table>

From the literature review conducted, this study found a research gap related to the influence of leadership dimensions (intellectual, emotional, and spiritual dimensions) and leadership behaviors (task-oriented and people-oriented behaviors) on structural and behavioral changes in business schools during the covid-19 pandemic. Previous studies have discussed these variables separately, and none of them have investigated their relationship in a complete model.

The selection of the concepts of "leadership dimensions" and "leadership behaviors" refers to several references that explain the role of leadership in change or transformation in organizations. Gill argues that change in organizations must be supported by the development of comprehensive leadership dimensions. Compared to other concepts, "leadership dimensions" are considered to be able to help organizations meet the challenge of change more broadly (Gill, 2002).

Task and people-oriented leadership behaviors model from Bass will also be used in this study from the different extant leadership models (Bass, 1990). According to some studies, to navigate organizational transformation during times of crisis, leaders must balance these two seemingly opposing leadership behaviors (Bartsch et al., 2021; Stoker et al., 2019). This context is relevant to our research investigating leadership's role in the digital transformation process driven by major external forces.

Digital Transformation in Business Schools

The COVID-19 pandemic has different impacts on the industry. Some companies that provide essential services such as healthcare and logistics can still continue operating even though they have to implement strict health protocols for customers and employees. On the other hand, some industry players have been forced to stop or reduce their activities during the implementation of the lockdown, for example, hairdressers, airlines, and hotels. Different impacts are felt by institutions from financial services, consulting, media, and education that have to adapt and start operating in new ways (Tuzovic and Kabadayi, 2020).

Since the beginning of the COVID-19 pandemic, higher education institutions and business schools across the globe have to make rapid adjustments through digital technology adoption. For example, universities and business schools have signed up in droves with Zoom, MS Teams, Google Meet, and other online meeting/conference platforms to sustain teaching activities (Marks et al., 2020).

Krisnamurthy (2020) in his study also concludes that the business schools recently face a once-in-a-lifetime move to emergency remote teaching. Such rapid transitions make faculty members and students have to adapt to new learning methods quickly with very little preparation (Govindarajan & Srivastava, 2020). The most fundamental challenge facing digital transformation in higher education institutions is the lack of leaders' holistic vision and faculty members' digital competencies (Marks et al., 2020). These are the characteristics of "forced digital transformation," as discussed earlier.

Digital transformation in higher education institutions and business schools has different characteristics from firms or corporations. Kaminsky et al. (2018) define digital transformation in higher education institutions as "the modernization of corporate IT architecture management, which could provide an important contribution to structuring the efforts of innovation in education."

In their study, Benavides et al. (2020) describe that digital transformation dimensions in higher education institutions include teaching, infrastructure, curriculum, administration, research, business processes, human resources, extension, governance, information, and marketing. Teaching activities, curriculum, and infrastructure have been the dimensions most influenced by
technological development. Marks et al. (2020) have almost the same conclusion: the most significant influence of digital transformation in universities is on the teaching and learning process, research process, enabling process, and governance process. Regarding the digital transformation in business schools, Krishnamurthy (2020) emphasizes that changes in universities are highly correlated with the dynamics in the business world. Preparing students to succeed in applying telework (virtual team) is an example of a digital transformation trend in business schools influenced by the business world.

In general, digital transformation that occurs within the organization will include structural and behavioral changes. Structural changes are "hard" transformations that involve updating tools, business processes, and standard operating procedures. Meanwhile, behavioral changes are "soft" transformations that involve organizational members' readiness for change and increased cross-functional collaboration (Philip, 2021). Based on the explanation of the type of change, this study describes the digital transformation dimensions in business schools in table 4 below.

**Table 4: Dimensions of Digital Transformation in Business Schools**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Structural Changes</th>
<th>Behavioral Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching</td>
<td>Development of online learning infrastructures and new administration procedures</td>
<td>Advancement of digital capabilities and innovation of learning methodologies.</td>
</tr>
<tr>
<td>Curriculum</td>
<td>Modernization of digital business curriculum</td>
<td>Enhancement communication among lecturers.</td>
</tr>
<tr>
<td>Research</td>
<td>Alignment of the research process with business requirements</td>
<td>Improvement of online research competencies</td>
</tr>
<tr>
<td>Governance</td>
<td>Application of data security and risk management</td>
<td>Improvement of awareness in digital security</td>
</tr>
<tr>
<td>Extension</td>
<td>The use of independent certification in digital competencies and collaboration with digital companies</td>
<td>Enhancement of faculties coordination with external parties related with digital transformation.</td>
</tr>
<tr>
<td>Marketing</td>
<td>The use of social media advertising, virtual marketing events, etc</td>
<td>Refinement of digital marketing competencies (knowledge, skills, and attitude).</td>
</tr>
</tbody>
</table>

**Source:** Philip (2021); Benavides et at. (2020); Krishnamurthy (2020); Marks et al. (2020)

**The Roles of Leadership in Organizational Transformation**

Conceptually, there is still ambiguity related to the terminology of leadership. It is often interchangeably used with the definition of management (Carroll and Levy, 2008). Although different, the two have complementary roles. Kotter (1990) explains that management is about coping with complexity, while leadership, by contrast, is about coping with change. Another expert proposes that "leadership is the process of persuasion or example by which an individual induces a group to pursue objectives held by the leader and their followers (Gardner, 1993). Organizations must combine and balance strong leadership and strong management to sustain in an increasingly complex business environment (Kotter, 1990).

The dynamics of the external environment and technological developments that we are dealing with today require a more agile approach than ever before. As organizations are under the pressure of constant transformation, leaders must adapt to these volatile conditions (Avolio et al., 2000). In a dynamic situation like this, the role of leadership becomes critical. Kotter (1996) explains that leadership consists of processes that adapt organizations to significantly changing environments. Leadership will align people with a particular vision and inspire them to progress towards the desired future.

The digital transformation that took place massively in higher education institutions and business schools during the COVID-19 pandemic is an example of a volatile situation that requires a leadership role (Bartsch et al., 2021). With effective leadership, organizations will be able to oversee the digital transformation process to a higher stage, not stagnate in a position (Porfírio et al., 2021).

Unfortunately, in practice, the role of leadership in organizational transformation in difficult times is often marginalized. In their study for nearly two decades, McNulty and Marcus (2020) concluded that crises are most often over-managed and under-led. The organization focuses more on reactionary actions to address emerging urgent needs rather than building a vision for the future.

Therefore, this research will focus more on the role of leadership in organizational transformation during the COVID-19 pandemic. Several fundamental concepts such as leadership dimensions and leadership behaviors will be related to organizational changes during the digital transformation process.
Leadership Dimensions

Previous studies have emphasized several leadership dimensions needed by a leader to navigate change effectively, including the rational or intellectual dimension ("thinking"), emotional dimension ("feeling"), and spiritual dimension ("meaning") (Gill, 2002). For the context of leaders in higher education institutions (dean), Wepner, D’Onofrio, and Wilhite (2008) propose four leadership dimensions: intellectual, emotional, social, and moral dimensions. This research will use the leadership dimensions of Wepner et al. (2008) by combining emotional and social dimensions into one. This merger follows the explanation of Goleman (1998), which incorporates social skills into the emotional dimension. Effective leadership requires cognitive abilities to understand information, rationalize, make decisions and solve problems (Gill, 2002). Webner et al. (2008) explain that the intellectual dimensions of leaders in higher education institutions (deans) include the ability to transcend polarities, tolerate ambiguity, see reality as complex and contradictory, understand situations from different points of view, make decisions, and describe problems. Another study specifically highlights the leaders' intellectual dimensions in the digital era which include critical analysis, vision or imagination, and strategic perspective (Sahyaja and Rao, 2018; Dulewicz, Young, and Dulewicz, 2005).

Cognitive ability is not the only quality needed to be a good leader. Goleman (1998) argues that emotional abilities have more influence on the success of a leader than intellectual abilities. He explains five components of emotional intelligence in the workplace, namely self-awareness, self-regulation, motivation, empathy, and social skills. Another study revealed that the emotional dimensions of a leader in higher education institutions include the ability to express feelings through words and actions, understand inner conflicts, have empathy to people and situations, tolerate self and others, deal with conflict, and maintain relationships (Webner et al., 2008). As for the digital era, the emotional dimensions that a leader must possess include self-awareness, emotional resilience, interpersonal sensitivity, influence, and motivation (Sahyaja and Rao, 2018) Following various ethical scandals in business, politics, sports, non-profits, and even educational institutions, people ask, what is wrong with our leaders? The answer to this question becomes an argument about the importance of ethical or moral dimensions for a leader (Brown & Trevino, 2006). The development of moral dimensions in practicing leadership is essential for the success of educational institutions. Leaders in educational institutions demonstrate moral dimensions in leadership by doing action based on the best interests of students. They are leaders who firmly hold personal values such as consistency, reliability, and integrity (Davidson & Hughes, 2020). According to other research conducted by Webner et al. (2008), the moral dimensions of a leader in higher education institutions include the ability to make decisions that are fair, based on good values, following inherent goodness, and considering followers’ well-being (safety and happiness). In the digital era, a leader must also have a personal commitment to finding ethical solutions to his problems (Sahyaja and Rao, 2018; Dulewicz et al., 2005).

Leadership Behaviors

There is rising evidence that managers’ leadership behaviors influence the success of organizational transformation (Batiliana et al., 2010). However, organizational transformation or change involves various different activities that require different roles and behaviors from leaders (Higgs & Rowland, 2005). From the various existing leadership models, this research will use the task-oriented and person-oriented behaviors model from Bass (1990). This model is particularly relevant and well suited to the study of leadership in the context of organizational transformation. Nadler and Tushman (1999) emphasized that task-oriented behaviors and person-oriented behaviors are critical to influencing organizational change. In the context of crisis-induced digital transformation in the services industry, Bartsch et al. (2020) also use the same leadership model. Bass (1990) describes that task-oriented behaviors are those leadership activities related to organizational structure, design, control, and attainment of organizational goals and objectives. This behavior is also referred to as “initiating structure,” which focuses on clarifying and monitoring work progress to attain organizational goals (Judge et al., 2004). While person-oriented skills include behaviors that create a supportive climate, encourage collaborative communication among organization members, and endorse management practices that ensure equitable treatment (Bass, 1990). Other researchers also refer to this leadership behavior as "consideration" (Batiliana et al., 2010). Table 5 and 6 summarize other studies' findings related to leadership behaviors in digital transformation.

Table 5: Task-Oriented Behaviors in Digital transformation

<table>
<thead>
<tr>
<th>Description of Task-Oriented Behaviors in DT</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creating agendas, coordinating meetings, and monitoring team members’ performance.</td>
<td>Benson (2018)</td>
</tr>
<tr>
<td>Developing new business models, innovating by capitalizing on emerging technologies</td>
<td>Antonopoulou, et al. (2021)</td>
</tr>
<tr>
<td>Preparing technology development plans; endorsing a culture of experimentation</td>
<td>Razak (2015).</td>
</tr>
<tr>
<td>Promoting the status and progress of digital transformation activities to all stakeholders</td>
<td>Brock &amp; Wangenheim (2019)</td>
</tr>
<tr>
<td>Considering data to be an important resource for the organization</td>
<td>Gaffley &amp; Pelser (2021).</td>
</tr>
<tr>
<td>Controlling team performance using virtual tools</td>
<td>Yusof, et al. (2019)</td>
</tr>
<tr>
<td>Managing disruptive transition</td>
<td>Cortelazzio et al. (2019)</td>
</tr>
<tr>
<td>Finding and removing obstacles that may hinder digital transformation</td>
<td>Guinan et al. (2019)</td>
</tr>
</tbody>
</table>
Table 6: People-Oriented Behaviors in Digital Transformation

<table>
<thead>
<tr>
<th>Description of People-Oriented Behaviors in DT</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collaborating with team members from different backgrounds</td>
<td>Benson (2018)</td>
</tr>
<tr>
<td>Mentoring cross-functional teams; engaging transnational task force</td>
<td>Antonopoulou, et al. (2021)</td>
</tr>
<tr>
<td>Giving moral and technical support; strengthening trust</td>
<td>Razak (2015)</td>
</tr>
<tr>
<td>Involving staff in decision-making related to digital initiatives, improving team’s digital literacy</td>
<td>Claassen et al. (2021).</td>
</tr>
<tr>
<td>Encouraging lecturers with opportunities for further learning</td>
<td>Kulophasa &amp; Kimb (2020).</td>
</tr>
<tr>
<td>Making discussions and dialogue with team members</td>
<td>De Tuya et al. (2020)</td>
</tr>
<tr>
<td>Supporting members to make improvement</td>
<td>Zulu &amp; Khosrowshah (2021).</td>
</tr>
<tr>
<td>Maintaining connectivity</td>
<td>Cortellazzo et al. (2019)</td>
</tr>
</tbody>
</table>

In developing theory and model, this research uses an input-process-outcome (IPO) framework. Leadership dimensions and leadership behaviors will be the elements of input and process, while the outcome is digital transformation in terms of structural and behavioral changes (figure 2).

![Proposed Conceptual Framework](image)

Figure 2: Proposed Conceptual Framework

Propositions Development

Leadership Dimensions and Leadership Behaviors

In the context of digital transformation, a leader’s intellectual dimensions include digital know-how (Gferer et al., 2021; Alekhina et al., 2020), the ability to predict the future (Wu et al., 2021), creative thinking (Schwarzmueller et al., 2018; Benson, 2018), and also ability to make decisions strategically (Berman et al., 2021). With this ability, a leader will make decisions more effectively in times of transition. Leadership behaviors can be categorized into two seemingly opposing types: task-oriented and people-oriented behaviors (Bass, 1990). Examples of task-oriented behaviors in the context of digital transformation include developing a technology plan (De Tuya et al., 2020), challenging members to be more innovative, and giving clear instructions related to technology adoption (Pramono et al., 2021). These behaviors are closely related to the intellectual dimensions that have been discussed previously. A leader who has strategic thinking and the ability to predict the future will make better plans. Likewise, leaders with creative thinking will also tend to want to have an innovative team. Meanwhile, to provide clear direction, a leader needs digital know-how. The people-oriented behaviors in the context of digital transformation include collaborating with other team members (Benson, 2018), giving support for digital problems (Clasen et al., 2021), and providing technical support to the team (Razak, 2015). Such behaviors also require the support of intellectual abilities such as digital know-how and creative thinking.

Based on the literature review, two propositions can be concluded as follows:

i. Proposition 1.a: Leader’s intellectual dimension positively influences task-oriented behavior during forced digital transformation in business schools.


Humans are creatures that are not entirely rational. Therefore, the emotional dimension becomes something important in leadership. Previous research has investigated the emotional dimension elements that can play an essential role in the digital transformation process. The elements include self-awareness (Wu et al., 2021; Schwarzmueller et al.), social awareness (Schiuma et al., 2021; Sahjaya & Rao, 2018), emotional expression (Benson, 2018; Klus & Muller, 2021), and the ability to build relationships (Hanson et al., 2018; Klus & Muller, 2021).
The relationship between a leader's emotional dimensions and leadership behavior (both task-oriented and people-oriented behaviors) can be seen from the need for all these behaviors to express emotions and build relationships. These two competencies are an essential part of the leader's emotional dimension. Leaders will have difficulty interacting and communicating with team members without this ability. Therefore, based on the literature review, this research proposes two propositions as follows:

i. Proposition 2.a: Leader’s emotional dimension positively influences task-oriented behavior during forced digital transformation in business schools

ii. Proposition 2.b: Leader’s emotional dimension positively influences people-oriented behavior during forced digital transformation in business schools

Leader's moral dimensions tend to be rarely studied in the context of digital transformation compared to other dimensions. From the previous literature review, it can be concluded that a leader’s moral dimensions include integrity (Sahjaya & Rao, 2018), fairness (Bregenzer & Jimenez, 2021), concern for the well-being of others (Bregenzer & Jimenez, 2021; Schiuma et al., 2021), and concern for ethical solutions (Cartellazo et al., 2019; Schiuma et al., 2021). The leader's moral dimension is related to people-oriented behaviors, especially in the element of "concern for others' well-being" (Schiuma et al., 2021). This trait will make a leader more willing to give moral support and motivate his or her team members. As for task-oriented behaviors, character integrity as part of a leader's moral dimension will encourage him to act more professionally. Sahjaya and Rao (2018) state that in the context of digital transformation, a leader must display clear commitment and integrity in the face of challenges. This character will enable the leader to execute task-oriented actions in a more professional manner. Based on the analysis of these previous studies, this research recommends:

i. Proposition 3.a: Leader’s moral dimension positively influences task-oriented behavior during forced digital transformation in business schools

ii. Proposition 3.b: Leader’s moral dimension positively influences people-oriented behavior during forced digital transformation in business schools

Leadership Behaviors and Changes during Digital Transformation

Philip (2021) explains that there are two changes that occur in organizations as a consequence of digital transformation: structural and behavioral changes. Examples of structural change in business schools include the development of online teaching infrastructures, modernization of digital business curriculum, and alignment of research activities with new business requirements. Meanwhile, behavioral changes can be in the form of improvement of digital competencies, online research skills, and coordination among lecturers. (Benavides et al., 2020; Krishnamurthy, 2020; Marks et al., 2020). Counter to their hypothesis, Bartsch et al. (2020) find that task-oriented behavior positively correlates with team cohesiveness. They concluded that in a forced digital transformation full of ambiguity, the team needed clear direction and coordination from the leader. On the other hand, Philip (2021) also concludes that creating a new vision and creative ideas positively influences structural change within the company during the digital transformation process.

i. Proposition 4.a: Task-oriented leadership behavior positively influences structural changes during forced digital transformation in business schools

ii. Proposition 4.b: Task-oriented leadership behavior positively influences behavioral changes during forced digital transformation in business schools

In the context of forced digital transformation, Philip (2021) concludes that motivating and providing a supportive environment has a positive influence on structural and behavioral changes in organizations. A similar conclusion was conveyed by Bartsch et al. (2020) in a study of service companies during the COVID-19 pandemic. They found that task-oriented behavior had a positive influence on the affective and behavioral aspects at the team level. Based on the literature review, two propositions can be recommended as follows:

i. Proposition 5.a: People-oriented leadership behavior positively influence structural changes during forced digital transformation in business schools

ii. Proposition 5.b: People-oriented leadership behavior positively influences behavioral changes during forced digital transformation in business schools

Conclusions

This research only uses a literature review; therefore, further study using an empirical approach is still needed. Qualitative methods (especially in-depth interviews or focus group discussions) involving leaders from business schools are needed for more rigorous theory building. After that, a survey using a questionnaire can be the right choice for doing theory testing.

The COVID-19 pandemic has become an accelerator of digital transformation in almost all institutions, including business schools (La Berge, et al., 2020). With the important role of business schools in Indonesia (Directorate General of Higher Education, 2020),
research related to digital transformation in these institutions is becoming increasingly relevant. An interesting perspective to use is related to the role of leadership in navigating digital transformation in business schools. Previous studies conclude that leadership has a critical role in the success of the digital transformation process (Porfírio et al., 2021; Joas, 2020).

This study tries to fill the research gap by setting several objectives. First, this study uses business schools as the unit of analysis, while most other studies focus more on the business institution. Second, this study examines the influence of leadership dimensions (intellectual, emotional, and moral dimensions) on task-oriented and people-oriented leadership behaviors during forced digital transformation in business schools. Third, it investigates the mediating effect of task-oriented and people-oriented leadership behaviors on business schools’ structural and behavioral change.

In addition, this study also has several managerial implications for business schools. The description of leadership dimensions and behaviors relevant to digital transformation can be a reference for business schools in administrating leadership development programs.

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