

Strategic renewal through digital transformation: Insights from Indonesia's telecom industry

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Abstract: Digital transformation is a significant phenomenon that affects almost every business sector, particularly the telecommunications industry, which is closely intertwined with information technology. This study is grounded in McLuhan's concept of technological determinism and Martin Heidegger's philosophy of technology, which asserts that media and technology shape human thoughts and interactions, benefiting individuals, society, and culture alike. The primary objective of this research is to investigate the environmental factors that influence digital transformation and to assess its impact on the strategic renewal of a company. This research employs exploratory qualitative methods, collecting in-depth information through interviews with the respondents from Indonesia's leading telecommunications operator who can provide comprehensive and contextual insights into digital transformation. The findings reveal specific environmental factors that drive digital transformation. The major identified components of strategic renewal include advancements in information technology, the role of human resources, and interactions with external parties, including customers and partners.

Keywords: business environment; digital transformation; strategic renewal; qualitative analysis; telecommunication industry

1. Introduction

Significant changes in business development can be attributed to digitalization, such as increased human-machine collaboration (Nardo et al., 2020; Maresova et al., 2018), increased responsiveness to change (Maresova et al., 2018), changes in mechanisms of business operations across various industries (Sudarma, 2020), and increased efficiency and effectiveness of businesses (Alam and Noor, 2020). This change illustrated Hess et al.'s (2016) proposition, which states that digital transformation is linked to the use of digital technology in business models, leading to adjustments in process automation, organizational structures, and products.

Technology plays an important role in digital transformation. McLuhan's idea of technological determinism states that technology is more than just a tool; it is "media as information," meaning that media and technology influence humans' thoughts and interactions, which has a beneficial impact on individuals, society, and culture. Furthermore, Heidegger's notion of "enframing" or "Gestell" states that technology alters our perception and interaction with the world (Heidegger, 1977).

Digital transformation surpasses mere technology adoption; rather, it necessitates strategic changes in organizations for full utilization of digital technology (Wirtz and Göttel, 2016); adaptation to changes in technology and market demands (Roca et al., 2020); formulation of new strategies (Gharib, 2019; Khanom, 2023); and

reconsideration of Matzler's entire business model (2018). Digital transformation refers to the use of digital technologies for fundamental changes in the way existing business processes are executed, making it easier for customers to connect with the company by interacting through technology (Verhoef et al., 2021).

Digitalization is becoming a top priority for businesses due to the significant technological shift (Nylén and Holmström, 2015); hence, businesses must reconsider their business models to ensure successful outcomes from this change. There are several elements that will affect a company's perspective on digital transformation both now and in the future, making it necessary to adopt an internal as well as an external approach (Davenport and Westerman, 2018).

Internal and external approaches are an analysis of the company's environment that will determine the steps of digital transformation because it has a major impact on the company's business and management, with implications for business and organizational strategy (Bharadwaj et al., 2013). Service-oriented companies that focus on customers (Denisova et al., 2022), competitors that push companies to innovate (Farida and Setiawan, 2022), and global trends that are important for positioning digital transformation (Tomyuk et al., 2022) are all crucial factors that companies review in implementing strategies. Additionally, the culture prevailing in the company poses a challenge to digital transformation, due to which employees view digital transformation as a threat (Pretorius, 2019).

Strategic renewal is influenced by industrial and technological forces (Warner and Wäger, 2019). Strategic renewal in digital transformation refers to fundamental changes in corporate strategy that result in long-term value and success (Barney and Hesterly, 2015; Sirmon et al., 2007), along with a key mechanism in organizational business models, collaborative approaches, and organizational culture (Warner and Wäger, 2019). Companies must consider their business environment before determining the best strategy for digital transformation, which will result in strategic business updates, especially since the recent McKinsey study shows that only 25% of Indonesian companies have a clear digital strategy, compared to 30% across Asia and 50% globally (Das et al., 2018).

A company's strategic decisions are critical and serve as a determining factor for the organization's future success. Strategic decisions, including technology investment, product development, and strategic alliances, are influenced by digital transformation (Laudon and Laudon, 2016). There is a close relationship between structure (technology) and strategy; the wider the adoption, the greater the change in strategy of various specifications (Van Zeebroeck et al., 2021). Previous studies have demonstrated that digital transformation improves financial performance, productivity, innovation, and customer experience (Bughin et al., 2018; Westerman et al., 2014). Warner and Wäger (2019) researched German organizations and discovered that digital transformation entails a constant renewal strategy that embraces improvements in digital technology to develop new capabilities.

Several researchers have shown that digital transformation brings strategic renewal (Karl, 2019; Leso et al., 2023; Masoud and Basahel, 2023; Nwankpa and Yaman, 2016). An analysis of a multinational company in Germany in line with Warner and Wäger's (2019) study showed that new technologies bring strategic updates to the business model, collaborative approach, and culture of an organization,

as well as the German government's initiative to change the production process (Benzerga et al., 2017). Six legacy news publishers in the UK, Finland, and Switzerland digitized their news business operations and diversified laterally into non-news digital markets (Lischka, 2019). Changes in value-chain integration (Raj et al., 2020) and strategic updates occur in parallel and in close relationships with each other across specifications and industries in North America, Europe, and Asia (Van Zeebroeck et al., 2021). Kretschmer and Khashabi (2020) focus on organizations and argue that their impact affects organizational design in many dimensions. The impact of digitalization on organizational design will be much stronger. Manufacturing companies in China are significantly increasing their investment in innovation activities in the digital transformation process (Wen et al., 2022).

In previous research on the impact of digital transformation on strategic renewal in the telecommunications industry, we found that network externality strategies can enhance customer engagement (Wiemker, 2015), process and content strategy changes (Gharib, 2019), access, and infrastructure (Haryanti et al., 2023). Strategic renewal aims to increase the number of customers, reduce the number of networks (distortion of market competition), and lower the prices of telecommunications services (Radukić et al., 2019). Even developing countries are focusing on augmenting their digital skills (van Deursen and van Dijk, 2019).

Therefore, the purpose of this study is to investigate three key areas that are crucial to digital transformation: how environmental factors influence digital transformation, how digital transformation works, and how the company develops strategic renewal. The study is focused on the telecommunications sector, which is the primary global driver of digitalization (Ifeoma et al., 2021). The telecommunications sector is directly tied to technology (Lajous et al., 2023) and uses technology extensively due to its range of products and services (Yildiz, 2019).

To achieve the research objectives, qualitative analysis will be carried out by conducting interviews at Indonesia's two largest telecommunications companies, leveraging the experience of senior leaders working in these companies (Regnér, 2008; Warner and Wäger, 2019) to emphasize their individual perspectives on digital transformation. The qualitative analysis chosen in this study allows us to dig deeper into the experiences of senior executives in leading digitalization projects. With the open-ended question method, the implications of the strategy and policy of digital transformation will be obtained more from the informants we choose at the board level. The objective of this research is to contribute an overview of the business environment, including what is important for targeted digital transformation, how digital transformation works, and the strategic renewal for long-term growth.

2. Theoretical foundation

According to the study theme and purpose, this section presents a more systematic analysis of literature works relevant to the research topics on the business environment, technological determinism and digital transformation, disruptive innovation and innovation diffusion theory, and strategic renewal.

2.1. Business environment

The strategic process involves appropriate managerial leadership because it influences organizational effectiveness (Hanson et al., 2016). According to Pearce et al. (2000) and Coulter and Coulter (2002), environmental evaluations can assist businesses in identifying urgent issues that have a substantial influence on business operations. This will enable them to prioritize their responses to these problems and formulate suitable control strategies.

Imran and Kantola (2019) argue that if companies want to deliver optimal performances, significant operational changes need to be made. According to Warner and Wäger (2019), internal support includes cross-functional teams, rapid decision-making, and executive assistance, whereas three main internal barriers are rigid strategic planning, reluctance to change, and a high level of hierarchy. Tarutè et al. (2018) identified additional internal factors such as capability, resource suitability, and business model changes, while external determinants include legislation and industry-related factors. Due to shifting consumer demands, global competitiveness, and technological advancements, businesses are facing increasingly dynamic external obstacles (Lederer et al., 2017). Several elements listed by Valdez-de-Leon (2016) as the primary motivators include technological advances, new companies providing digital services, changes in customer expectations, and the decline of traditional telecommunication products.

The business trend highlighted by Aghayari et al. (2022) is the dominance of technology in the telecommunications industry very rapidly after the software industry. Wiemker (2015) focuses on current customer trends due to changes in customer expectations (Valdez-de-Leon, 2016). Chengli et al. (2019) discussed the importance of government institutional support as it influences entrepreneurial orientation and strategic renewal because business regulations and government attitudes ultimately impact business performance (Ramzaeva et al., 2021).

Wheelen et al. (2018) stated that structure, culture, and resources are internal environmental factors that support corporate strategy. Other factors that influence the success of strategic renewal include organizational culture, innovation, quality human resources, and strong leadership (Revees and Deimler, 2018; Nambisan and Baron, 2019).

2.2. Technological determinism and digital transformation

McLuhan's technological determinism posits that technology not only serves as a tool or means of achieving goals, but it also has a positive impact on individuals, society, and culture. According to McLuhan (1964), media and technology not only convey messages or information but also have a substantial impact on how humans think and behave. This notion can assist businesses in developing an effective digital transformation plan by taking into account the media and technology used to communicate and engage with employees, customers, and business partners, ensuring user acceptance.

In order to stay relevant and innovative in the digital age, businesses need to continually adapt their strategies to reflect these developments (Heidegger, 1977). Heidegger's theory, especially his concept of technology as "enframing" or "Gestell,"

argues that modern technology not only functions as a tool but also changes the way we understand and relate to the world. This enframing concept can help companies develop effective digital transformation strategies by considering the social and ethical implications of using technology.

This is supported by earlier studies on ambidexterity (Tushman and O'Reilly, 2017), disruptive innovation (Christensen, 2016), and dynamic capabilities (Teece, 2018). According to Christensen (2016), disruptive innovation highlights how important it is for businesses to continue to innovate and adapt by following changing customer needs and technological advances. According to this idea, a company's renewal strategy focuses on how the company will adapt to changing market conditions and competitive customer demands; therefore, digital transformation should involve integrating digital technologies into organizational processes.

Ambidexterity theory (Tushman and O'Reilly, 2017) argues that companies need to maintain a balance between the exploration of new innovations and the exploitation of existing resources to create competitive advantages in the era of digital transformation. Dynamic capability research by Teece (2018) emphasizes the importance of a company's ability to develop new resources and capabilities to face market and technological changes. Overall, dynamic capability creates a relevant conceptual foundation for understanding how organizations respond to digital transformation, integrate unique company characteristics, and implement strategic updates as part of a strategy to deal with rapid and complex changes occurring in the business environment.

Maltaverne (2017) describes digital transformation as designing "new ways of doing things that generate new sources of value." Hebbert (2017) defines digital transformation as a company's ability to react to and successfully utilize new technology and procedures now and in the future. Aghayari et al. (2022) have identified five major drivers of digital transformation: (i) strong communication with customers; (ii) business flexibility; (iii) operational efficiency and cost reduction; (iv) innovation in services; and (v) growth opportunities.

The current digital transformation implies business strategies and organizational strategies and adjustments that need to be made to take advantage of those changes. (Bharadwaj et al., 2013). Digital transformation also influences strategic decisions within companies pertaining to technology investment, product development, market selection, and strategic alliances (Laudon and Laudon, 2016), as well as increasing productivity (Obokoh et al., 2024). Previous research shows that digital transformation can bring benefits to companies, including improved financial performance, productivity, innovation, and customer experiences (Bughin et al., 2018; Westerman et al., 2014).

Digital transformation occurs at the operational level through workflow automation, product development, and changes in organizational structure (Clohessy et al., 2017). Furr et al. (2022) identified four pillars of digital transformation: information technology, digital operations, digital marketing, and new business. Ananda (2021) concluded that the digital transformation carried out by companies varies according to context, with the aim of improving business processes and competitiveness.

2.3. Disruptive innovation and innovation diffusion theory

Disruptive innovation describes a situation where an industry is shaken, and previous incumbent firms decline (Christensen, 2016). This can be illustrated by emerging technologies being abandoned and replaced by other new technologies over time, occurring quickly or unexpectedly, and affecting all the sectors of the economy (de Weck, 2022). This disruptive innovation can cause large companies to fail, but on the other hand, it can open up opportunities for new products or companies (“Innovator’s Dilemma” by Christensen, 1997).

Disruptive innovation causes incumbent firms to fail because they do not respond effectively to newly introduced products (Christensen, 2016) or because of the inability of organizations to respond effectively (Henderson, 2006). Disruptive innovation occurs when the performance of new products meets market demand more effectively than existing products (Jonathan, 2021). Disruptive technologies actually open up opportunities for new products, demanding a change in the way we view market failures and the impact of new technologies (Terry, 2020). Disruptive technologies bring a very different value proposition to the market than ever, so disruptive technologies should be framed as a marketing challenge rather than a technological challenge (Christensen, 2016).

Disruptive innovation is related to the diffusion of innovation. In Rogers’ (2003) diffusion of innovation framework, the relative speed at which an innovation is adopted by members of a social system describes how quickly a new idea or technology is adopted. Diffusion is not only a means by which innovations become useful by spreading throughout the population but is also an intrinsic part of the innovation process, similar to the learning, imitation, and feedback effects that occur during the spread of new technologies and enhance the original innovation (Hall, 2004). Most approaches view innovation as a unit of output produced by a firm and diffusion as the consumer-centered social process that follows (Vargo, 2020). This implies that disruptive innovation involves the spread of innovation, as ideas and technologies are adopted by many people, resulting from “invention and diffusion” (Rogers, 2003).

2.4. Strategic renewal

Strategic renewal is the process by which businesses adjust their plans to changing environmental conditions (Volberda, 1996). Strategic renewal refers to changes that occur in firms as a result of strategy reform or the reconfiguration of segmentation and targeting strategies (Rossato et al., 2020). Strategic renewal is a process of revitalizing a company’s operations by overhauling its business scope and market movements (Huang, 2009).

Strategic renewal improves business performance (Ahmed et al., 2023; Gandolfo and Lupi, 2021; Issah et al., 2023;). As a relevant concept in the context of digital transformation, strategic renewal refers to fundamental changes in the corporate strategy adopted to create long-term value and organizational success (Barney and Hesterly, 2015; Lavie et al., 2010; Sirmon et al., 2007). The strategic planning process involves modifying business, strategic, and organizational operations to adjust to changing market conditions. This is a complex and challenging process but is very

important for organizations that want to survive and grow in the current environment (Agarwal and Helfat, 2009).

Digital transformation fosters a continuous renewal strategy by exploiting improvements in digital technology to create new capabilities while replacing business models, collaborative methods, and organizational culture (Warner and Wäger, 2019). However, not all organizations are successful in executing a renewal plan. Agarwal and Helfat (2009) identified four elements that determine the effectiveness of a renewal strategy: organizational capability, environmental dynamics, top management support, and organizational inertia.

3. Methods

This research used a qualitative method to provide more detailed information when answering research questions. Qualitative research is one of the most common types of exploratory research and is used to gain an understanding of patterns, causes, effects, and relationships. Qualitative research involves important processes such as asking questions, following procedures, collecting specific data from respondents, analyzing data from specific polls for the general population, and interpreting data (Creswell, 2009). Warner and Wäger (2019) conducted qualitative research to tap into the experiences and perspectives of each senior leader in digital transformation; Gharib (2019) also used the same method.

The research results to be obtained do not use statistical analysis procedures or other quantitative methods (Moleong, 2010). This qualitative (exploratory) research focused on understanding the variables in depth, determining the dimensions of each variable related to the business environment, and renewing digital transformation strategies. In this study, the sampling method used is a purposive sample, where the sampling strategy used as participants is based on criteria by determining characteristics that are related to the objectives (Hadi, 2007). The research subjects include two public telecommunications companies that are the two largest telecommunications companies in Indonesia and are considered to encounter complexity in digital transformation. The telecommunications industry was selected because it is closely connected to technology (Lajous et al., 2023) and heavily relies on it to deliver its wide array of products and services (Yildiz, 2019).

Using qualitative methods, the respondents who can provide in-depth and contextual insights into how companies respond to the corporate environment, digital transformation, and strategic updates were selected. The type of data used is primary data, where data is obtained directly from the source (informants) to describe the formulation of the problem and explain the objectives of the study. This primary data can be collected with several techniques (Malhotra, 2010), and we used interviews.

The observation unit for this study is a telecommunications company represented by two large telecommunications businesses, namely PT XL Axiata, Tbk (participant 1), and PT. Telkom Indonesia, Tbk (participant 2). We interviewed participants who are top company management personnel (board of directors) and have experience in the telecommunications industry for more than 25 years. Participants were asked several open-ended questions about the corporate environment, digital transformation, and strategic renewal. The interview was conducted for 1 hour for each participant.

All interviews were audio recorded and transcribed by the researcher. The researcher then synthesized the interview data to obtain the primary gist for answering the study questions. The research questions are structured as in **Table 1**.

Table 1. Question structure.

Variable	Dimension
External Environment	Global Trend
	Customers
	Regulations
	Competitors
Internal Environment	Capital
	Leadership
	Employees
	Corporate Culture
Digital Transformation	Information Technology Usage
	Information Technology Growth
	Information Technology Coverage
Strategic Renewal	Business Model
	Strategic Renewal Growth
	Strategic Renewal Scope

4. Results and discussion

4.1. Results

4.1.1. Business environment that influences digital transformation

Both participants agreed that the digital revolution is inevitable. Digital technology drives all industrial sectors, including previously inconceivable items like ride-hailing services and digitalization in the manufacturing sector. However, they also emphasized that the success of this digital transformation is dependent on the support of the company's external and internal environment.

Participant 1 explained that the main source of external effects is a rivalry with businesses that are inherently digital native players or digital platform companies. Companies with digital platforms have become a new pressure in the competitive telecommunications industry. If telecom companies do not immediately embrace digital transformation, they will gradually fall behind due to the demands of the surrounding ecosystem and competition from non-traditional telecom companies. Telecommunications businesses are under more pressure to preserve business continuity in the face of valuation falls, while digital native companies continue to see an increase in their company valuations. Telco businesses need to be able to follow the newest worldwide trends as they are still relevant to their own operations and the rapidly shifting needs of customers who have started abandoning traditional products. Voice and Short Message Services (SMS) are gradually being replaced by digital products, especially those created by businesses operating on digital platforms such as Facebook or WhatsApp. In the meantime, as technology is advancing more quickly

than accompanying regulatory changes, outside influences such as rules in the telecommunications sector have less of an impact.

The focus given to the valuation value of digital native players, where Return on Investment (ROI) is lower than hyper-scaler companies, is one of the internal reasons for encouraging digital transformation. The internal goal is to increase productivity and efficiency by simplifying procedures, moving to digital platforms, and automating tasks to save costs and shorten time for the market. Because labor costs are relatively lower compared to other countries, the biggest burden in Indonesia is not related to labor costs but rather to the marketing of the product. Faster marketing duration leads to cost savings.

Human Resources (HR) is a vital asset for every organization; therefore, the digital transformation process requires mapping through an assessment process to improve qualifications (up-scaling) through training and resizing the number of HR needs. With these changes, company culture must also adapt to the digital transformation process. Mapping and adapting HR demands, as well as changes in business culture, are consequences of digital transformation rather than the cause.

Since 2016, PT. XL Axiata Tbk has undergone a digital transformation process, which shows readiness and good management of capital adequacy. Leadership has an important role in driving the digital transformation process and its success. The innovation carried out by the company also shows leadership that is able to recognize ecological changes and meet ecosystem needs, one of which is by becoming a service provider that has eliminated dealers.

Participant 2 highlighted that both internal and external factors contribute to the successful implementation of digital transformation at PT. Telkom Indonesia, Tbk. The company is well aware of the rapid technical changes that are taking place, particularly in the worldwide telecoms industry. To respond to these changes, the company has developed a number of fundamental reform programs. Adaptive change includes technological developments such as satellite technology, platform security, and artificial intelligence (AI). These competitive concerns are addressed using a customer-focused “Five Bold Moves” strategy. This demonstrates the company’s dedication to long-term growth, tailoring products and services to lifestyles, and embracing the latest trends in line with its focus on digital connectivity, digital platforms, and digital services.

Digital transformation is taking place not only due to corporate competition with Over the Top (OTT) platforms like WhatsApp, Google, and Facebook but also due to satellite technology disruption to telecommunications infrastructure, especially telecommunication towers. Increased client demand also has a substantial impact. These factors push Telkom to reorient its business strategy and customer service, as it can no longer rely on outdated business models under contemporary conditions. All changes made are based on customer needs and satisfaction.

Internal encouragement is caused by an increase in Capex (Capital Expenditure), which is not commensurate with stagnant income, so the concept of economic sharing can be implemented through digital transformation. This shows the need for the company’s ability to manage funding for digital transformation, as well as the need for leadership in realizing sustainable digital transformation. Through this digital transformation, changes occur in the HR structure and company culture.

The results on the business environment show that considering the global trend dimension, the factors in the internal environment of the company that influence digital transformation are sustainable products and services, following lifestyles, and business trends. In the customer dimension, the influencing factors are customers' ease of switching and their lifestyles. In the competitor dimension, the presence of digitally native companies and traditional businesses and the speed of change in IT influence digital transformation. These results are shown in **Figure 1**.

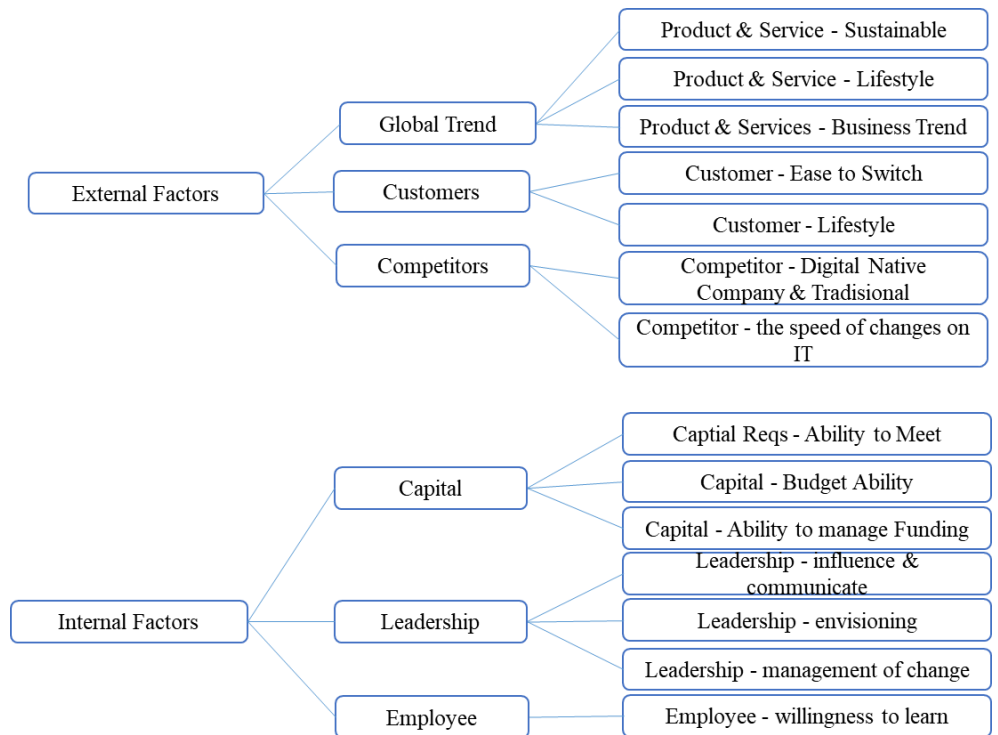


Figure 1. Influenced factors—Variable: Business environment.

4.1.2. Digital transformation

Digital transformation causes several changes in business operations, with the primary goal of increasing efficiency. This study divides digital transformation into three dimensions: IT usage, IT growth, and IT coverage.

Participant 1 highlighted that digital transformation improves employees' business operational capabilities as a result of fundamental changes in organizational procedures. One of the successes of this digital transformation lies in the company's ability to eliminate the dealer system. One key feature of digitization is innovation in sales methods, especially regarding changes while serving traditional customers who rely on cash-based systems and changes such as retail kiosks that sell products digitally. Meanwhile, most digitalization collaboration occurs in supply chain, procurement, and asset management.

Leveraging information technology capabilities in asset management seeks to minimize costs, boost ROI, and provide targeted levels of service support to retail and corporate customers. This is demonstrated by product and process innovations that have an impact on expanding work automation and transforming formerly labor-intensive operations. IT capabilities also help to speed up the process, reducing the

number of personnel engaged.

Participant 2 stated that as the global operational system shifts toward digitization, organizations can no longer operate using traditional ways. To adapt, businesses must begin embracing digital platforms and make changes to their operational model and plan. Customers serve as the foundation for the digital transformation that is being implemented. Economic sharing is one approach to improving IT capabilities in support of specific business services. Companies can use economic sharing to share infrastructure and interact with digital partnerships, allowing them to form specific units to discover and collaborate with technology owners. In fact, competitors are increasingly viewed as strategic partners that help to develop the company’s ecosystem.

Information technology updates carried out by Telkom can be seen from digital-based products, such as Infrastructure Communication (InfraCo), Data Center, IT services for B2B (business to business), and Digital Company (DigiCo) introduced by PT Telkom. Another technical innovation is the use of artificial intelligence to solve energy-related challenges. Digital partnerships are inherently linked with digital transformation. Companies no longer perform end-to-end operations independently as before but have started building strategic alliances.

The results of the digital transformation show that in IT usage, the factors that influence digital transformation are IT to increase productivity, support operations, and support asset management. In the IT growth dimension, the influencing factor is some IT renewal. In the IT scope, the influencing factors are how IT serves as a working tool, an integrator of business, and increases accessibility. These results are depicted in **Figure 2**.

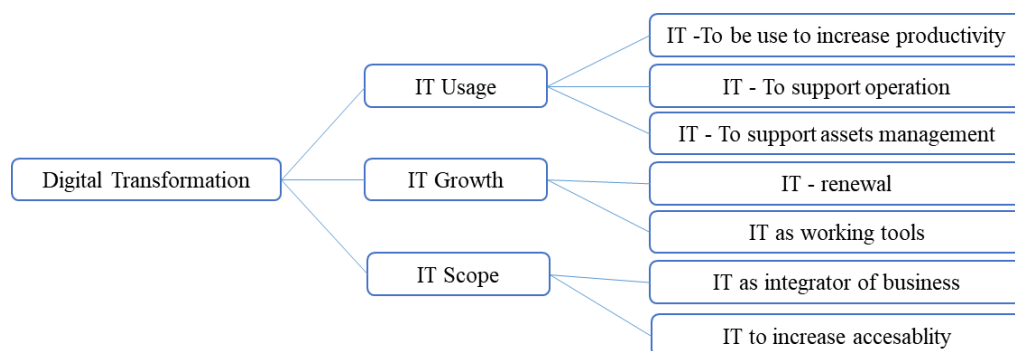


Figure 2. Influenced factors—Variable: Digital transformation.

4.1.3. Strategic renewal

The findings from participant interviews clarify that digital transformation alters businesses fundamentally.

According to Participant 1, the strategic updates brought about by digital transformation are first of all related to strategic operations, especially network and distribution operations, which form the basis of cellular telephones. Digital network operations will operate more efficiently, resulting in higher performance. Meanwhile, distribution requires large but crucial costs because no matter how inventive a product is, it will be a big problem if it is unable to reach consumers. Second, strategies related to human resources in terms of increasing capabilities are adapted to the current

environment. HR criteria have changed, and companies need agile employees who are able to quickly adapt to changes. Third, strategy relates to partnerships, and fourth, strategy relates to Information Technology (IT), where IT policies are the most frequently updated.

Participant 2 explained that the company realizes the importance of customers in policy formulation because they are the foundation of the company’s sustainability. Partnerships are another strategic pillar of strategy because companies will find it difficult to operate end-to-end on their own in the digital era. The Five Bold Moves approach summarizes the strategic renewal, which focuses on customers and relationships.

The scope of the FMC (Fixed Mobile Convergence) strategy includes: first, combining cellular and fiber businesses to provide broad internet access at low cost and coverage. Second, a digital partnership strategy in the form of strategic alliances to ensure infrastructure efficiency. Third, plans to improve client experience through data center development. Fourth, IT service strategy for business segment customers (B2B) due to expansive digital adoption in various industries. Fifth is the digital company strategy, which is a partnership strategy. There are three categories of partners for building partnerships, including partners who have competence, who can attract customers because they will leverage, and who have capital capacity.

Aside from expanding the use of IT in operations, the company is also making strategic updates in terms of human resources, specifically by mapping the right number and position of human resources. Upscaling, resizing, and repositioning begin with establishing communication and trust in order to change the company culture. Changing company culture is not a simple process.

The results of the company’s strategic renewal show that, in the business model dimension, the strategy serves as a new source of revenue, reduces costs, and makes the business more agile. In strategic renewal, growth entails optimizing the user experience, while the strategic renewal-scope dimension encompasses network and distribution, partnership, operation, human resources, and corporate culture. The results are exhibited in **Figure 3**.

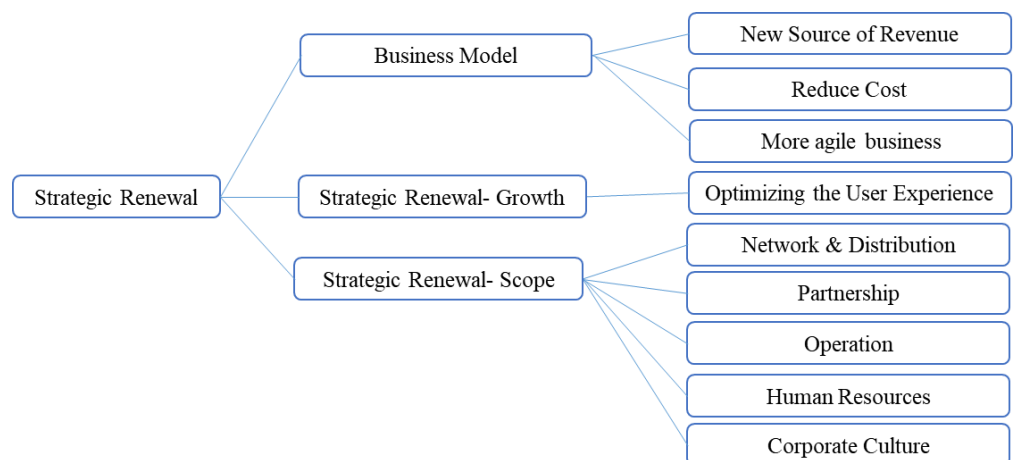


Figure 3. Influenced factors—Variable: Strategic renewal factors.

4.2. Discussion

This study aims to examine three things that we consider important from a digital transformation aspect, such as how the company's environmental factors affect digital transformation, what digital transformations occur, and then how strategic updates are created by the company. To achieve these goals, we conducted this study qualitatively by interviewing the top management personnel of Indonesian telecommunications companies.

The results of the study show that not all dimensions that we designed from the business environment affect digital transformation, such as government regulations. This finding differs from the research outcomes of Chengli et al. (2019) and Ramzaeva et al. (2021), establishing that there is an influence of government institutions. In the interview findings, participants explained that there was no significant influence from the regulatory system because technological change is so rapid that there is often an overlap between the policies issued and the technological changes that occur.

Another dimension that is different from our initial estimates that will affect digital transformation is corporate culture. Pretorius's research (2019) states that culture in a company is a challenge that is the mainstay of digital transformation. Our findings show that corporate culture must be changed with the occurrence of digital transformation; thus, creating a new corporate culture is part of strategic renewal.

5. Conclusion

Based on research findings, it is increasingly clear that the business environment has a significant impact on digital transformation. From the results of the interviews we conducted, the external environment consists of global trends, customers, and competitors, while the internal environment consists of capital, leadership, and employees. Regulations apparently do not have a significant influence, while company culture is more a manifestation of the digital transformation being carried out.

Companies are experiencing significant changes due to digital transformation, especially in business operations, which mostly utilize IT. Digital transformation is also changing the way businesses interact with consumers and partners. Competitors are no longer threats; instead, they can become strategic partners.

Digital transformation leads to substantial strategic renewal. Strategies connected to technology itself, strategies related to HR, and strategies related to external parties, specifically customers and partners.

6. Limitations

Several limitations emerged from this study, thus offering opportunities for future research. First, this study had a small sample size when collecting information. The new interviews were represented by telecommunications companies and not by the representatives from Internet Service Providers (ISPs). Future research can increase the number of participants from telecommunications companies and ISPs. Second, the study with interview time is also limited, so there may be information that has not been explored more optimally. Further research can be added to quantitative analysis to strengthen the preferences obtained from the interview results.

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