



# POSITIVE EFFECTS OF DIGITAL TRANSFORMATION IN SMES IN CAMEROON

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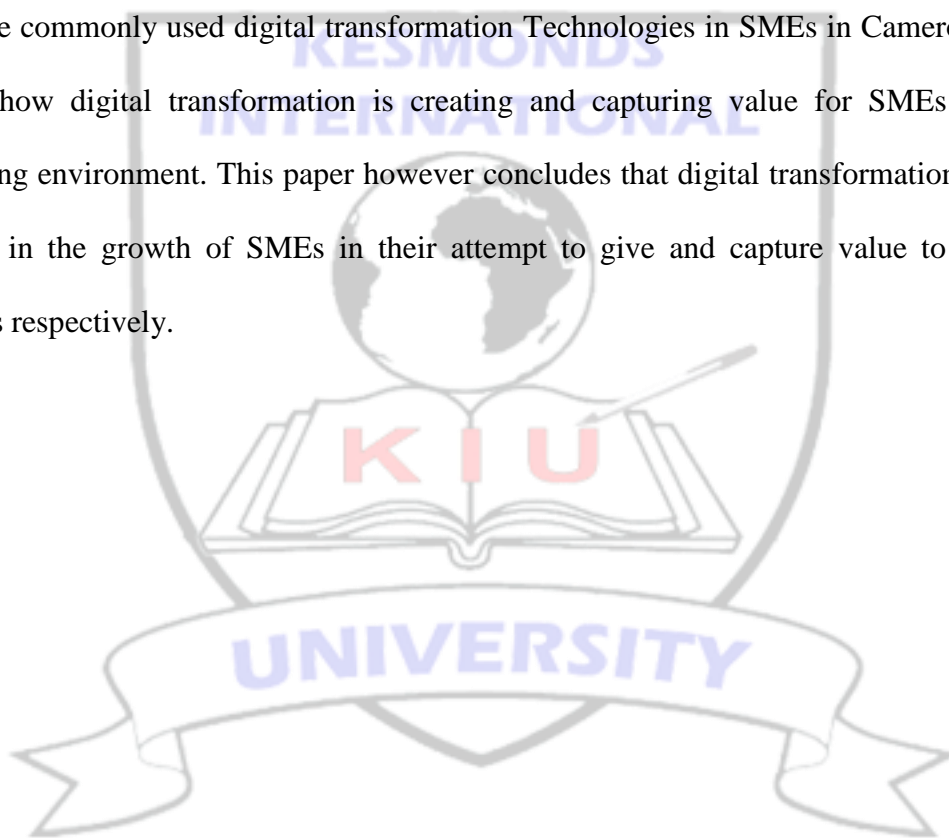
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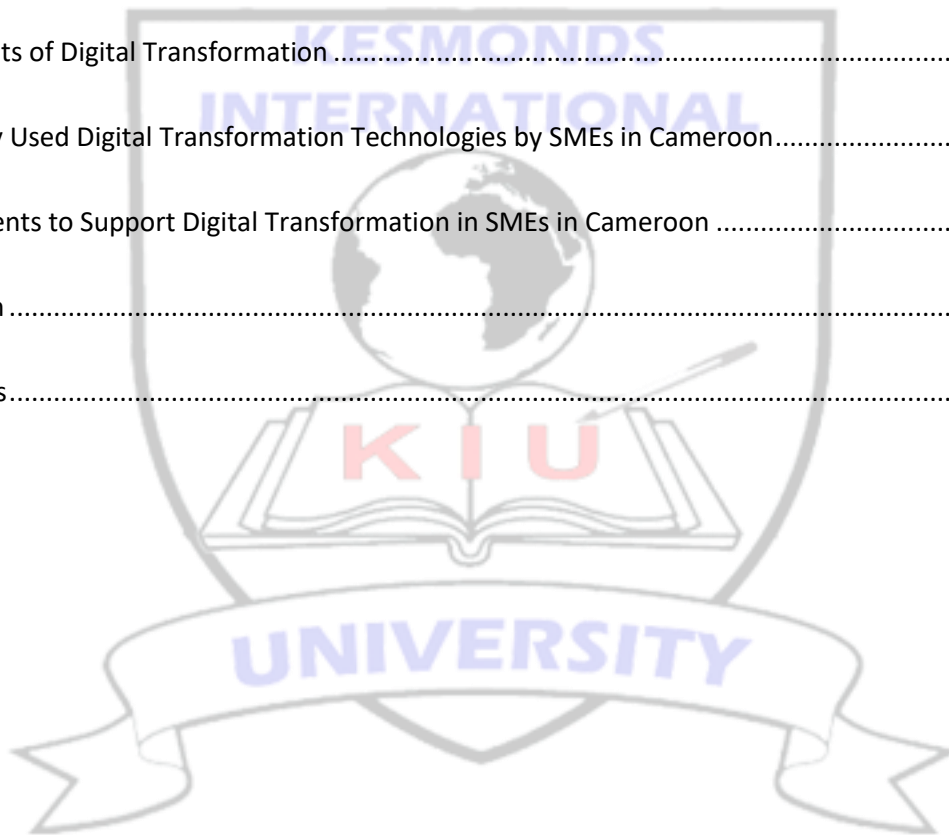
## Abstract

Due to globalisation, businesses are changing their business models so as to reach more customers and gain a competitive advantage. This cannot be possible without the growing Digital transformation. It is for this reason that this paper sought to investigate the positive effects of digital transformation in Small and Medium size enterprises (SMEs). The primary focus of this paper were to critically examine what digital transformation is all about, to outline the commonly used digital transformation Technologies in SMEs in Cameroon and to find out how digital transformation is creating and capturing value for SMEs and their surrounding environment. This paper however concludes that digital transformation plays a vital role in the growth of SMEs in their attempt to give and capture value to and from customers respectively.



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## **Purpose of this paper**

This paper aims to investigate

1. What digital transformation is all about?
2. Commonly used digital transformation Technologies in SMEs in Cameroon.
3. How is digital transformation creating and capturing value for SMEs?



## Introduction

In recent years, the phenomenon of digital transformation (DT) has gained a lot of traction (G. C. Kane et al., 2015). The incorporation of emerging technology into business processes is referred to as "digital transformation" or "digitalization" (Liu et al., 2011). The use of emerging technology allows goods and services to be integrated across functional, organizational, and regional boundaries (Sebastian et al., 2017). As a result, because they have the "power" to disrupt the status quo and lead to significant transformation in a number of industries (A. Bharadwaj et al., 2013). These emerging technologies accelerate the speed of change and lead to significant transformation in a number of industries. And also, it can be used to drive technological change (Bharadwaj et al., 2013). Digital innovations have transformed the way businesses work (Dal Mas et al., 2020c), ushering in the idea of "Industry 4.0" or the "smart factory" (H. Lasi et al., 2014). Digital channels have given businesses and organizations in a "market environment" a new way of working, resulting in shifting patterns in value networks. Digital innovations have had a significant impact on industry (Ng & Wakenshaw, 2017) and culture, introducing profound changes through modern circular and shared economy approaches. The three characteristics of digital technologies include digital artefacts, digital platforms, and digital infrastructures (Nambisan, 2017) which are used to create opportunities for businesses to innovate a gain a competitive advantage.

Data analytics, cloud computing, and three-dimensional (3D) printing are examples of digital infrastructures that are offering new tools for rapid scaling (Huang et al., 2017). As a result, digitalization blurs the lines between technology and management, introducing new digital technologies and ideas that are radically altering the way businesses function, evolve, build partnerships, and conduct business.

In order to stay competitive in the modern digital world, businesses must use digital technologies and platforms for data collection, integration, and consumption, as well as adjust to the platform economy (Petraiki et al., 2018). Also, Subramanian et al., (2011) SMEs, for example, use android phones or tape recorders to record interviews with their target markets while conducting marketing research. Furthermore, recent research indicates that businesses use external venturing modes (for example, startup programs and accelerators) to improve dynamic capabilities (Enkel & Sagmeister, 2020). As a result, digitalization is viewed as an entrepreneurial phase (Henfridsson & Yoo, 2014), in which firms pursuing digital transformation render previously successful business models obsolete (Kiel et al., 2017) by introducing business model innovation (BMI).

In comparison to conventional BMs systems, firms embracing emerging technology consider data sources to be of paramount importance and give them a central role in supporting their digital transformation strategies (Zott et al., 2011) and (Pigni et al., 2016). As a result, emerging innovations are inextricably linked to BM strategic shifts (Sebastian et al., 2017). And consequently, the development of new BMs (Hess et al., 2016) and hence the growth of small and medium sized enterprises.

BMs have become a new unit of research in the digital context (Zott et al., 2011) to investigate the evolving impact of digital technology on how companies generate and deliver

value through BMI. According to the literature, BMI offers opportunities for benefit capture in a system of networked activities (Zott & Amit, 2010), as well as improving firm results (Foss & Saebi, 2017). The BM's position is critical in defining the most important aspects of a digital strategy. Indeed, it aids businesses in using the digital lens to innovate their business models in order to generate new value (Berman, 2012). However, this phase is still evolving (Ferreira et al., 2019), and several questions for entrepreneurs and managers remain unanswered, especially in relation to the convergence of digital transformation and business transformation strategies (Matt et al., 2015), in order to realize the “digital business strategy” (Bharadwaj et al., 2013).

### **Digital Transformation and Value Creation to customers**

The essence of the products and services provided by SMEs to their customers is defined by value development in SMEs. Companies may generate new value in a variety of ways thanks to digital transformation. We'll look at four different ways to create value and describe each one.

To begin with, digital transformation enables SMEs to generate new value by revising and expanding their current product and service portfolios. For example, to deliver digital goods to consumers, the newspaper and book publishing industries used a servitization (using a product to sell a product) strategy (Iestad and Bugge, 2014).

Second, digital transformation allows businesses to better understand their customers' desires and have new value offerings that are tailored to their preferences. A value proposition that bridges the gap between the company and its consumers is one form of value proposition. For example, in the manufacturing industry, innovative value propositions may provide a high degree of customer participation in value co-creation through additive manufacturing and 3D printing technologies (Bogers et al., 2016). New business models (BMs) that depend entirely



on recent technological advances such as smart apps, drones, 3D printing, and crowdsourcing distribution to generate new value for consumers are often focused on high-value creations and through new services. Companies in the logistics industry have been turned into technology businesses as a result of the introduction of these emerging technologies, which offer "transportation and logistics solutions without being encumbered by heavy asset investments" (Alberti-Alhtaybat et al., 2019).

Some value propositions, on the other hand, tend to meet only the most basic requirements. In this case, SMEs meet the needs of low-income consumers in developing economies, creating new value propositions and even new industries (for example, resource-constrained developments in the healthcare industry) (Winterhalter et al., 2017).

Thirdly, we've noticed that some sectors, such as financial services, hospitality and automotive services, and healthcare, are increasingly incorporating emerging technology into their business processes in order to address sustainability concerns and adopt a shared economy approach. The automotive industry, for example, is embracing sustainable mobility (Bohnsack & Pinkse, 2017), generating new sources of demand by providing a superior product or service (e.g., car-sharing platforms and mobile applications) or by combining their goods with other services (Bohnsack and Pinkse, 2017). In the financial services industry, embedding the shared economy approach is introducing new technologies for processes and services (Gomber et al., 2018), resulting in digital banking services, goods, and features that improve customer experience (Gomber et al., 2018).

Fourth, digital networks or "platforms" and ecosystems are being used to create new value. The required digital infrastructure for everyone to link to various actors in networks is provided by digital transformation. In the United States, for example, digital transformation has resulted in the creation of new Health Information Exchanges (HIE) organizations, which

use multi-sided digital platforms to provide information exchange services between various industry actors (Khuntia et al., 2017). A mobile telecommunication ecosystem has emerged as a result of the widespread distribution of data content through mobile devices and the advancement of network infrastructure technology. The introduction of booking platforms (booking.com) and sharing platforms (Airbnb) in the hotel industry has provided consumers with new value propositions that are both cheaper and more authentic.

### **Digital Transformation and Value Delivery**

Quality distribution refers to how a company's operations and procedures are used to deliver the promised value to customers. An analysis of the literature shows that the way value is transmitted in digitally powered business models (BMs) has changed significantly. Firms' core competencies, practices, skills, and responsibilities have all been challenged by digital transformation (Ghezzi et al., 2015).

To align themselves with the transition to digital platforms and servitization, businesses must first review their core competencies (Iestad and Bugge, 2014). In order to manage relationships with customers, their new competencies should include knowledge of emerging technology with customers efficiently and to use the interactivity of digital channels. In order to continually innovate their activities, businesses should be open to introducing new disruptive technologies (Alberti-Alhtaybat et al., 2019).

Second, rapid changes in the current ecosystem market environment necessitate the development of new capabilities as well as a greater focus on existing ones. To cope with changes in the value chain and market climate, new skills are needed. In the pharmaceutical industry, for example, companies must deploy specialized assets and technologies related to the orchestration and management of network information flows. The role of projects based on emerging digital technologies (in this case, the blockchain) to differentiate real drugs from

fake drugs has been highlighted in previous literature (Dal Mas et al., 2020). Integrative skills assist businesses in capturing value from environments and maximizing the value of their properties (Helfat & Raubitschek, 2018). In other industries (for example, telecommunications), marketing skills must cope with reduced costs and technological abilities to deal with ecosystem changes. Firms must be "agile," relying on networks and strategic alliances.

Third, digital transformation necessitates a change in the firm's operations and processes. Manufacturers in the automotive industry use environmentally friendly production processes as they participate in sustainability programs. Companies and suppliers have collaborated on open innovation initiatives like "Mobility Scenarios for the Year 2030 – Materials and Joining Technologies in Automotive Engineering" as a result of this initiative (Wiener et al., 2018). The other example is frugal innovation processes in the healthcare sector, which are structured to minimize costs across the entire value chain (Winterhalter et al., 2017).

Fourth, the role of businesses in the industry has changed as a result of digital transformation. The entry of new players has resulted in a change in the position of actors in the industry. The entry of new players (web companies) into the telecommunications industry, for example, has an effect on value distribution (Ghezzi et al., 2015).

### **Digital Transformation and Value Capture**

The revenue model and its financial sustainability are emphasized in the value capture of companies, which focuses on revenue sources and cost structures. Firms can reduce costs and raise sales in a variety of ways as a result of digital transformation.

New enabling technologies help businesses capture value. Big data allows businesses to reduce complexity in decision-making, optimize procedures, and improve the performance and quality of their goods and services (Loebbecke & Picot, 2015). These characteristics aid

companies in identifying new sources of value in other markets and lowering the costs of BM adoption over time.

Superior value propositions can help businesses capture value. Customers pay for superior support and solutions, or resource-constrained technologies, for the superior efficiency of a service network in industries such as logistics. Firms in the pharmaceutical industry capture value by developing new value propositions for which they provide services to patients. Premium prices in the creative industries are determined by the level of exclusivity and personalization of the service provided (Li, 2020).

By using emerging technology to enhance consumer intimacy, digital transformation enables businesses to capture value on channels (Gomber et al., 2018). However, research indicates that value capture is influenced by the advancement of services rendered, and transaction-based revenue models are ineffective for long-term viability.

### **The Different Types of Digital Transformation**

Three major areas of digital transformation for businesses are highlighted by the MIT Sloan Management Review:

**Experience with Customers:** Digital transformation can be used to accelerate consumer development and create more customer contact points by working to better understand consumers.

**Internal Processes:** Using digitization and automation to improve internal processes, providing workers with digital resources, and gathering data to track success and make more informed business decisions.

**Business Models:** Adding digital resources and services to physical offerings, introducing digital goods, and leveraging technology to deliver global shared services are all ways to transform a business.

## **The Benefits of Digital Transformation**

While the return on investment from digital transformation is dependent on a number of factors, the right technology can significantly change how the company operates and how consumers interact with it.

### **1. Increases production while lowering labor costs.**

One of the most effective ways to transform the company is to use technology to function more effectively. For businesses, the time and money spent on training new hires and upgrading digital infrastructure, for example, will easily add up. With the right resources, you can keep costs low while increasing efficiency.

### **2. Improves the customer experience**

Customers who are tech-savvy expect a great experience through various channels — mobile apps, social media, email, live chat, and so on. Improved customer interactions are propelled by digital transformations.

### **3. Makes You More Competitive in Your Industry**

Whether or not you are considering digital transformation, your rivals are. If you refuse to accept digital transformation, you are effectively agreeing that you don't mind falling behind.

## Frequently Used Digital Transformation Technologies by SMEs in Cameroon

Here are some of the most common technologies SMEs in Cameroon use to enable digital transformations:

- **Mobile phones and apps**

With the rise of digital transformation, SMEs in Cameroon are beginning to use mobile phones to conduct business more effectively and conveniently. A mobile application has been created to enable users to make purchases at anytime, anywhere.

Small and medium-sized businesses (SMEs) are increasingly using mobile money, a result of digital transformation, to make and receive payments. PayPal, WazaPay, ZuumPay, CashApp, and other mobile digital transformations are used by SMEs in Cameroon.

- **Cloud computing**

Simply put, cloud computing is a result of digital transformation that allows for the delivery of computing services such as servers, storage, databases, networking, applications, analytics, and intelligence over the internet (the cloud) to provide quicker innovation, more versatile resources, and economies of scale. You usually only pay for the cloud services you use, which helps you cut costs, operate your infrastructure more effectively, and scale as your company grows.

Cloud storage is used by small and medium-sized businesses to store massive files that can be used to make educated decisions.

- **Internet of Things (IoT)**

The internet of things (IoT) is a digital transition that relies on cloud-based systems to provide solutions to computations, analytics, and other tasks (Erboz, 2020). One of the most important functions of IoT is to link the Internet by collecting data from physical objects through simulations of manufacturing machines. Most SMEs in Cameroon have computerized their business models, and as a result, they rely on the internet to perform calculations. As a result, their companies become more successful, and they gain a competitive advantage.

- **Digital twins**

Digital twins, which are exact digital replicas of physical objects, are made possible by Internet of Things (IoT) sensors that collect data from the physical world and send it to machines to recreate. A digital twin, also known as a prototype, is a digital reproduction of a physical object, such as a jet engine or wind turbines, or even larger objects, such as buildings or entire cities. Photo studios that print pictures, for example, often make a sample (Negatives) before the final picture is printed, and SMEs have begun to incorporate the aspect of digital twins (Marr, 2017).

- **Artificial intelligence/machine learning**

Artificial intelligence (AI) is a field of computer science that focuses on creating intelligent machines that can perform tasks that would normally require human intelligence. While AI is a multidisciplinary science with many methods, advances in machine learning and deep learning are causing a paradigm shift in nearly every field of the tech industry.

Small and medium-sized enterprises in Cameroon are integrating artificial intelligence into their day-to-day operations. SMEs, for example, are now using software that provides instant responses to customer questions. These responses have been conditioned to react exactly as if they were coming from humans.

## **Requirements to Support Digital Transformation in SMEs in Cameroon**

In addition, the extant research identified through the literature review supports and complements those requirements. In sum, the following 11 requirements for the procedure model could be defined:

- **Integration of External Supporters**

External sponsors, such as competence centers or research institutes, may assist SMEs in understanding and implementing DT initiatives. Collaboration with SME helpers, innovation labs, research institutions, and other intermediaries is stated in the literature in a similar way (Goerzig, and Bauernhansl, 2018).

- **Provision of Practical Orientation**

Provide DT with domain-specific orientation by directing SMEs through current trends and demonstrating their relevance through real-world examples (Heikkilä et al., 2016). As a result, a technique can go beyond the conceptual level and assist in the development of overviews that provide domain-specific information, best practices, real-world examples, and pre-filled resources (de Reuver et al., 2016).

- **Creation of a Supportive Environment**

Make people aware of the fundamental requirements that must be met before a project can begin.



- **Consideration of Tangible Goals**

Assist SMEs with criteria and needs analysis so that they can clearly identify achievable objectives.

- **Provision of an Individual Roadmap**

Assist SMEs in developing a simple roadmap based on their current state of DT and a combination of fast wins and long-term developments (Heberle et al., 2017).

- **Enabling a Stepwise Implementation**

Provide a cyclic, step-by-step strategy to assist SMEs in achieving achievable goals one by one. This enables sequential implementation to overcome resource constraints (Heikkilä et al., 2016). Still, the protocol should allow for multiple entry points and the ability to change the goals as needed (Brunswicker & Ehrenmann, 2013).

- **Identification of Opportunities**

Assist SMEs in identifying various potential solutions for a particular target and selecting the best one. As a result, various business scenarios should be compared (Reuver et al., 2016).

- **Assisting Reflection & Measurement**

Assisting SMEs in comprehending and assessing (un)successful digitization activities in order to generate best practice and spur on new initiatives.

- **Balancing Strategy and Operation**

However, a strategic fit is ensured by leading to acts (Reuver et al., 2016).

- **Supporting all Levels of Digital and Data driven Innovation**

Strike a balance between incremental and dramatic changes. As a result, it should encourage digital and data-driven creativity at all levels (Heikkilä et al., 2016).

- **Consideration of Open Innovation**

Consider forming groups in which SMEs can assist one another. Ideas and resources can be exchanged between internal and external organisations to improve the efficiency of their innovation process (Johannsson, 2015).

## **Conclusion**

The key goal of digital transformation is to restructure an organization's business through the use of digital technology, resulting in benefits such as increased efficiency, cost savings, and innovation.

It is common knowledge that digital transformation benefits SMEs in Cameroon in a variety of ways, including capturing and bringing value to customers. Digital technologies, on the other hand, need the requisite help in order to be adopted by any organization. Budget deficits in SMEs, impossibility of investment due to high investments and operational costs, inability to understand internet technologies, inconveniency of sector, data security, privacy concerns, technological developments, insufficient information about digital standards, being unaware of the benefits of digitization, having constrained resources are all obstacles to digital transformation adoption.

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