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Full Length Research Paper

Innovation types and SMEs financial performance relationship: Evidence from Eritrea

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The objective of this current study is to investigate the relationship between different types of innovation and the financial performance of small and medium-sized enterprises (SMEs) in a developing country, specifically in Eritrea. To achieve this, a questionnaire was distributed to managers/owners of selected firms, and Smart-PLS structural equation modeling was employed to test the hypotheses. The results reveal that all the types of innovation considered, including product/service, process, marketing, and organizational innovations, have a significantly positive effect on the financial performance of SMEs. These findings can increase awareness among entrepreneurs, researchers, and policymakers regarding the relationship between innovation and SMEs' financial performance. They also underscore the significance of innovation as a fundamental driver for firms to enhance their competitiveness. This study contributes to a better understanding of how different types of innovation impact SMEs' performance. This study builds upon prior evidence regarding the impact of innovation on firm performance. It also significantly extends the existing literature on innovation and SMEs from the perspective of a developing country, thereby making substantial contributions to research in terms of policy, practice, and theory.

Key words- Innovation types, financial performance, developing country, small and medium-sized enterprise.

INTRODUCTION

Innovation is of vital importance to enterprises as it serves as a key driver of success and long-term sustainability. It is widely recognized as a fundamental tool in development strategies, enabling businesses to enter new markets, expand their current market share, and gain a competitive advantage. Firms are increasingly realizing the significance of innovation, particularly in the face of rapid technological advancements and heightened global competition, which can quickly erode the value of existing products and services (Gunday et

al., 2011). In a world marked by heightened global and regional uncertainties, enterprises must maintain a competitive edge through innovation. Innovation plays a pivotal role in business strategies for several reasons, including gaining a stronger market position, implementing more efficient manufacturing processes, enhancing reputation, and securing a sustainable competitive advantage.

According to Oanh (2019), enterprise innovation capability is a substantial means by which firms can add

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to productivity. Enterprises which do not take part in innovation put themselves in great risk (Njoroge et al., 2019). It is contended that, since, competition has become tough and product life cycles shortened, an enterprise aptitude to stimulate innovation would be crucial in enhancing productivity and sustain a competitive advantage (Teece et al., 2016). The core justification for innovativeness is that enterprises strive to attain better market and increase their competitive benefit. It tends to assist enterprises to develop quickly and effectively, ultimately more profitably compared to non-innovators. Thus to meet customer necessities and present products or services and to be competitive in the market innovation is very necessary for enterprises. In general, innovation is vital, for the survival and sustainability of businesses organizations.

Due to their inherent characteristics, SMEs are often more agile in implementing significant innovations compared to larger enterprises. The introduction of innovative products or services is a fundamental business activity within SMEs (Sirmon et al., 2011). According to the resource-based theory, innovation is widely recognized as a critical factor influencing the performance of SMEs (Al-Ansari et al., 2013; Gunday et al., 2011). However, there has been limited exploration of the effects on firm performance within the context of developing countries. This is largely because most studies on innovation and resource-based theory have primarily been conducted among large enterprises in developed countries (Al-Ansari et al., 2013). Furthermore, the research on the association between innovation types and financial performance has often focused on product and process innovations (technological), neglecting other types such as marketing and organizational innovations (non-technological) (Gunday et al., 2011). All this denotes literature gap regarding innovation effect on SMEs financial performance. Thus this study, intend to fill this gap by examining innovation types (product, process, marketing organizational) effect on the SMEs performance in the context of under developed Sub-Saharan African country, Eritrea. The main research question that guides the research is, what is the relationship between innovation types selected and financial performance of SMEs?

The rest of the paper is structured as follows: the second section presents review of relevant literature and hypothesis development. The methodology applied is outlined in the third section. The fourth part comprises the results and discussion. And the last part is about the conclusion and implications of the study

LITERATURE REVIEW

Theoretical background

The purpose of this empirical study is to investigate the

relationship between different types of innovation and firm financial performance. According to the Organization for Economic Cooperation and Development (OECD, 2005), innovation encompasses the implementation of new or significantly improved products (goods or services), processes, marketing methods, or organizational methods in business practices, workplace organization, or external relations. There are two conventional ways of distinguishing between types of innovation. First, differentiation is based on the object of change, as proposed by Schumpeter in 1934. Second, innovations can be differentiated based on their degree of 'newness,' which is determined by the extent of change. Four kinds of objects of change or innovation (product, process, organizational, and marketing) have been implemented, based on the OECD report (OECD: 2005). Moreover, the extent of change linked with innovation may be displayed in terms of total newness or significant improvement. In line with the objective of the paper, this empirical study adopts the four-dimensions of innovation, as suggested by different scholars (OECD, 2005; Oke, 2007).

Service/product innovation includes new service or product with intensely enriched performance features, for instance integrated software and technological design, so as to satisfy the basic client needs better than the existing ones (OECD:2005). Product innovation is the making of a totally new product from new materials or the modification of current products to satisfy customer needs (Amara and Landry, 2005). It can also be defined as new changes in those actions that are undertaken to convey the main product/service and make it more appealing to clients. Service/Product innovation is a crucial driver of success that offers chance to expand into new market and aids firms to unearth opportunities to achieve an amazing income (Koloniari et al., 2018)

Process innovation is reengineering and improving internal operation of enterprise process. According to Schumpeter (1934) it is the application of new or considerably enriched development or distribution methods, changes in human resources, equipment and working practices. He highlighted it as the operation of new service or product strategies, or new approaches of selling the service or product. This type of innovation may affect productivity and efficiency of companies (Nambisan et al., 2017). Thus process innovation should, be a change in the action of delivering and manufacturing of goods that considerably allows the value added to the investors to be augmented (Oanh, 2019).

Marketing innovation is the implementation of new marketing strategies involving significant improvements in product design, product packaging, product positioning, and product promotion or pricing (OECD, 2005). Its main aim is to better satisfy client's needs, open up new markets, or place firms' goods on the market with the intent of expanding enterprise sales. It plays a vital part in satisfying market needs and responding to opportunities

of the market (Gunday et al., 2011). Thus it is essential for the business to align with the strategy and comprehending of marketing innovation to create sustainable progress.

Organizational innovation is “implementation of a new form of management in the firm’s business practice, workplace, or external relations of the business” (OECD, 2005). It is intended to improve firm performance by plummeting operational and administrative costs; it also helps to increase work place gratification which in turn increases labor productivity. It is highly related to all administrative practices, such as activities to stimulate team unity, redesigning of organizational structures, communication, processes, information exchange, and sharing knowledge and cooperation.

Hypothesis development

The relationship between product/service innovation and SMEs performance

Innovation enhances product quality, which adds to enterprise financial performance and, eventually, to an enterprise competitive edge (Al-Ansari et al., 2013). Rosli and Sidek (2013) study on numerous sectors of the industry in Malaysia and their findings showed that process and product are related positively to the performance of enterprise, where the later type of innovation has a larger impact. Similarly, Tung (2012) emphasized the significance incessant product innovation to assure customer loyalty, competitiveness, organization performance and survival. Atalay et al. (2013), showed significant and positive effect of product innovation on enterprise performance by taking a sample from automotive supplier industries. Augusto et al. (2014) concluded that, compared to firm wide innovation, product innovation is more significant on enhancing firm performance. Tsai et al. (2020), conducted research on high-tech firms located in Taiwan, and found that product innovation has a positive impact on organizational performance. They also revealed that the degree of this positive effect is more significant in high levels of business uncertainty. Moreover, other existing literatures have confirmed the positive association between innovation and enterprise performance (Omri, 2015; Calantone et al., 2002).

H1: Product/service innovation positively influences SMEs performance

The relationship between process innovation and SMEs performance

Kowo et al. (2019), using survey method conducted research on major telecommunication operator employees in Lagos State, Nigeria, to examine the relationship

between process innovation and organizational performance. Their study found out that process innovation has a significant impact on enterprise performance. According to the study of Varis and Littunen (2010) in Finland SMEs, process innovation is positively related to enterprise performance. Ar and Baki (2011), conducted empirical research on Turkish SME’s and established positive and significant effect of process innovation on enterprises. Madrid-Guijarro, et al. (2013) took sample from Spanish SMEs and found that process innovation positively linked with enterprise performance during different economic conditions. According to Valmohammadi (2012) study on the innovation management practices in Iranian organizations, active innovation processes are positively linked to enterprise performances. Similarly, Atalay et al. (2013) revealed that process innovation has positive and significant influence on enterprises. Sintset et al. (2013) qualitatively investigated the impacts of process innovation on municipalities’ performances in Sweden by using the method of grounded theory. Their study revealed that, the application of process innovation has a positive impact on the municipalities financial and customer’s performances. Muharam et al. (2020), investigated the link between process innovation, market innovation and enterprise financial performance of Indonesian pharmaceutical companies. Their findings emphasized that there is a positive association between process innovation, market innovation and firm financial performance. Cheng et al. (2010) found a significant impact of process innovation on firm performance, but the effect was lower than that of product innovation. However according to Ar and Baki (2011), findings, the effect of process innovation on performance was as significant as the effect of product innovation on performance. Demeter et al. (2021) investigated the effect of process innovation on enterprise performance in the context of a dependent market economy.

The result of the study showed process innovation to have some influence on business performance.

H2: Process innovation positively influences SMEs performance

The relationship between marketing innovation and SMEs performance

According to Quaye and Mensah (2019) there is positive impact of marketing innovative strategies on enterprise sustained advantages, particularly for SMEs. Sulton et al. (2022) conducted research study using Structural Equation Modeling (SEM) to investigate the role of innovation in an enterprise growth. The findings of the study indicated that marketing innovation have a significant impact on marketing performance. Peng et al. (2021), studied Marketing Innovation influence on

Performance, using empirical data from China and found that it has significant positive impact on enterprise performance. Cuevas-Vargas and Parga-Montoya (2020) examined the marketing innovation on Jordanian private commercial banks and their findings revealed that, marketing innovation has a valuable effect on business long-term competitive edge and growth. Otero-Neira et al. (2009) conducted a study on SMEs innovation and performance relationship and found strong evidence of market innovation positively affected firm performance. Similarly, in the manufacturing industries marketing innovation continue to be effective for performance enhancement (Bartoloni and Baussola 2016; Gunday et al., 2011). Wang (2015) conducted research in Taiwanese high-tech companies and stated that focusing on marketing contribute in achieving superior innovation performances and in turn enterprise success. John and Davies (2000) conducted research on insurance firms of a medium-size and marketing innovations found to simplify new ways of comprehending the diverse markets and increasing sales. According to Naidoo (2010) marketing innovations help sustainable competitive edge by promoting product differentiation and cost efficiency. Moreover many researches have delivered positive assessment on higher marketing innovativeness results (Hult and Ketchen, 2001; Wu et al., 2003; Walker, 2005).

H3: Marketing innovation positively influences SMEs performance

The relationship between organizational innovation and SMEs performance

According to Donkor et al. (2018) innovation capabilities has been found to have a positive effect on SME's financial performance in Ghana. Similarly another study on Ghanaian SME's has found that organizational innovations have a positive impact on their international performance (Donbesuur et al. 2020). Research study on small and medium Pakistani textile enterprises revealed that that innovation capability had a significant impact on SME performance (Arshad and Arshad, 2019). Sofalchian et al. (2018) examined the impact of organizational innovation on the performance of manufacturing firms in Rasht Industrials Park. Their findings revealed a positive association between organizational innovation and performance through process innovation capabilities. According to Yavarzadeh et al. (2015) investigation on organizational innovation and performance relationship in Iran, product, process, organizational innovations have a positive and significant financial effect on organizational efficiency. In their study on the link between organizational innovation capability and performance in pharmaceutical SMEs in Iran, Dadfar et al. (2013), found a positive association between organizational innovation capabilities and performance, due to the existence of

effective innovation management and commitment through the organization. Similarly, Bahta et al. (2020) in their study to examine CSR and its effect on SMEs innovation capability and performance in a developing country found that significant and positive relationship between innovation capability and SMEs financial performance. Keskin (2010) using multiple regression analysis investigated the effect of innovation capabilities on the enterprise performance by taking a sample of 246 middle and senior managers in Turkey, and study result indicated that innovation has an impact on firm performance. Noruzy et al. (2013), using structural equation modeling from a sample of 106 Iranian manufacturing firms, found a direct link between organizational innovation and organizational performance. Additionally, Camison and Villar-Lopez (2014), by taking a survey from 144 Spanish manufacturing enterprises and using structural equation modeling confirmed that organizational innovation for products and processes can lead to higher business. Mooghali and Jafari (2014) investigated the effect of organizational innovation on product innovation, market performance and innovative performance of the companies. The results of the study indicated that organizational innovation has a significant effect on both market and innovative performance of the firm. Strychalska-Rudzewicz and Rudzewicz (2021) investigated the association between organizational innovativeness and enterprise performance, with innovation culture as moderator in Poland and their result showed a substantial and positive impact of organizational innovativeness on enterprise performance.

Taneseb and Park (2020) study results in Korean public-sector organizations showed organizational innovation positive on impact on work performance, through the mediation effect of organizational work resources. Camisón and Villar-López (2014) research study showed a positive association between organizational innovation and enterprise performance. Moreover many research studies found that organizational innovation valuable for enterprise performance (Sakowski et al., 2018; Gunday et al., 2011; Armbruster et al., 2008) and viable source for competitive advantage (Mol and birkinshaw, 2009; Hamel, 2006).

H4: Organizational innovation positively influences SMEs performance

Conceptual framework of innovation and organizational performance

Figure 1 presents conceptual framework of the current research study. The independent variables are drawn from review of literature and innovation theories. Moreover the study research model draws from current knowledge on innovation and performance (Gunday et al., 2011). This would be utilized to examine the effect of

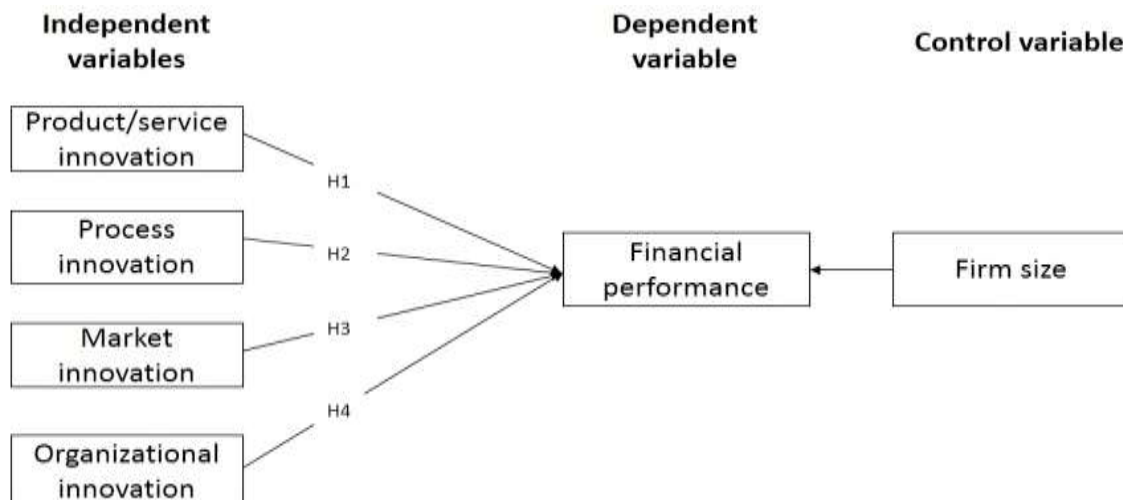


Figure 1. Research model.

Table 1. Demographic characteristics.

Demographic variable	Frequency	%
Gender		
Male	79	71.8
Female	31	28.2
Firm age		
Between 1 and 5 years	18	16.4
Between 6 and 10 years	25	22.7
Between 11 and 15 years	16	14.5
Above 16 years	51	46.4
Educational level		
high school	27	24.5
diploma	36	32.7
bachelors,	44	40
masters and above	3	2.7
Number of employees		
5 - 10	48	43.6
Above 11	62	56.4
Industry		
Manufacturing	36	32.7
Services	74	67.3
Total	110	100

the innovation types (independent variables) on the SMEs financial performance (dependent variable).

METHODOLOGY

Data collection and procedure

To investigate the impact of different innovation types on the

financial performance of SMEs in Eritrea, we conducted a cross-sectional study. The study population includes SMEs from various sectors located in the capital city, Asmara. This area was chosen due to the fact that the majority of enterprises listed in the Ministry of Trade and Industry (MTI) are situated in Asmara, providing a balanced representation of both manufacturing and service sectors (MTI, 2018). The data were collected through a survey, administered to the owner/manager. In this study 110 Eritrean SMEs were taken as a sample and using PLS structural equation modeling, direct relationship between dependent and independent variables were tested. Table 1 shows the demographic characteristics of the respondents.

Measurement of variables

Innovation types were measured and adopted from the study of Gunday et al. (2011). The construct comprises of 21 items, and scored using a five-point Likert scale. Financial performance was measured and adopted from the study of Gunday et al. (2011) and Martinez-Conesa et al. (2017). The construct comprises 4 items and Likert scale of 1-5 used to measure the enterprise performance for the last 3 years. Firm owners are not legally required to issue information related to financial performance making it difficult to obtain them easily. This compelled us to use perceptual measures of financial performance in this study. (Lubatkin et al., 2006). Besides, it is recommended that self-report of firm performance by managers substantially associate with objective measures of performance (He and Wong, 2004; Chang and Hughes, 2012). Finally, the authors controlled the firm size that may influence the connection between innovation types and enterprise performance. The size of the enterprise is examined by the number of employees (Sweeney, 2007; Tilakasiri, 2012; Saeidi et al., 2015).

Data analysis

SPSS Statistical package version 21 and Smart PLS 4 used to analyze data. Variance based smart – PLS, structural equation modeling approach is preferred for its aptitude to determine causal relationships among all latent constructs simultaneously, while dealing with measurement errors (Hair et al., 2016). Furthermore, PLS-SEM is best fit for explanatory study (Farooq and Radovic-

Table 2. Reliability and validity results.

Constructs	FL	Alpha	CR	AVE
Product/service				
PS_1	0.699			
PS_2	0.711			
PS_3	0.710	0.816	0.869	0.541
PS_4	0.888			
PS_5	0.843			
Process				
Proc_1	0.811			
Proc_2	0.827			
Proc_3	0.835			
Proc_4	0.809	0.885	0.887	0.685
Proc_5	0.856			
Market				
Mkt_1	0.833			
Mkt_2	0.874			
Mkt_3	0.792	0.832	0.835	0.665
Mkt_4	0.757			
Organizational				
Org_1	0.792			
Org_2	0.823			
Org_3	0.814			
Org_4	0.806	0.871	0.907	0.566
Org_5	0.694			
Org_6	0.691			
Org_7	0.774			
Performance				
FP_1	0.806			
FP_2	0.858			
FP_3	0.852	0.848	0.855	0.686
FP_4	0.794			

Markovic, 2017). Measurement and structural models are two classifications of SEM analysis (Anderson and Gerbing, 1988). Measurement model tests the validity and reliability of the indicators for each construct while the connection between dependent and independent variables structural model (Smith, 2003).

RESULTS

Measurement model

Table 2 demonstrates the results of the PLS factor loading (FL), reliability, Average Variance Explained (AVE) of the items utilized to measure product/service innovation, process innovation, market innovation, and financial performance.

The FL and AVE of the items considered are greater than 0.6 and 0.5, respectively, and topped the required

threshold; subsequently, Convergent validity has been proven (Henseler et al., 2009). The composite reliability (C.R.) of the five constructs topped the given boundary of 0.7 suggested (Hair et al., 2014). This reveals the maintenance of the reliability of all scales in this current study.

DV demonstrates sufficient difference among constructs (Hair et al., 2014). According to Fornell and Larcker (1981) DV criteria requires that each construct's square root of the AVE must exceed that of correlations between constructs and Table 3 proves the presence of discriminant validity.

Goodness of Fit (GOF)

Goodness of fit (GoF) was tested using one of the most

Table 3. Discriminant validity.

	F. Perf	Mkt Innov	Org Innov	Proc Innov	Prod/Serv innov
F. Perf	0.828				
Mkt Innov	0.387	0.815			
Org Innov	0.342	0.190	0.752		
Proc Innov	0.379	0.278	0.232	0.828	
Prod/Serv innov	0.470	0.114	0.247	0.168	0.735

Table 4. Hypothesis testing.

Hypothesis	Path coefficient	T- statistics	P- values	Decision
H1: Prod/serv innovn -> F. Perf	0.367	4.836	0.000***	Accepted
H2: Proc Innov -> F. Perf	0.210	2.632	0.009**	Accepted
H3: Mrkt Innov -> F. Perf	0.258	4.138	0.000***	Accepted
H4: Org Innov -> F. Perf	0.154	2.009	0.045*	Accepted

***p < 0.001; **p < 0.01; *p < 0.05.

widely used statistical techniques, the GoF formula, as proposed by Tanenhaus et al. (2005) to assess model fit. Henseler et al. (2016), defined it as “the linear mean of the average AVE and average R² for dependent variables”. The cut-off values of GoF are 0.1 = small GoF; 0.25 = medium GoF; 0.36= large GoF (Wetzels et al., 2009). Using the formula, a 0.50 GOF was obtained, indicating that the model satisfies the large criteria and thus is acceptable.

$$\text{GOF} = \sqrt{\text{AVE}} * \sqrt{R^2}$$

$$\text{GOF} = \sqrt{0.793} * \sqrt{0.405} = 0.50$$

Structural model

To test the hypothesized relationships, we run the bootstrapping technique with 5000 sub-samples in Smart-PLS. Multicollinearity and common method bias were checked with the values for variance inflation factor (VIF). Above 3.3 VIF indicates the existence of high multicollinearity and a sign of common method bias (Diamantopoulos and Siguaw, 2006). The VIF scores are under 3.3, showing absence of multicollinearity (Hair et al., 2014), and common method bias problems (Kock, 2015). SEM results are displayed in Table 4.

In this paper, the result of the analysis demonstrates a definite connection between Product/service innovation and SME performance, having path coefficient value ($\beta = 0.367$, $p < 0.000$). The impact of process innovation on SME financial performance is found to be significant ($\beta = 0.210$, $p < 0.009$). Market innovation had significant impact on SME performance, ($\beta = 0.258$, $p < 0.000$). Organizational innovation also has a positive and significant effect on SME financial performance ($\beta =$

0.154, $p > 0.045$). The results of the R² for financial performance were 0.40. Finally, an analysis to check whether the control variable play any role in the model is done. The result revealed insignificant effect of the variable.

DISCUSSION

Innovativeness is comprehended as a vital variable that increases the existing market share and influences the performance of SMEs. However little has been done, to explore the effect on firm results, in the context of developing world for the majority of the research on innovation were mostly conducted among large enterprises in the developed countries (Al-Ansari et al., 2013). Moreover the link between innovation types and financial performance focused on product and process innovations ignoring other innovation types like marketing and organizational innovations (Gunday et al., 2011). All this denotes literature gap regarding the effect of innovation types on SMEs financial performance. Thus based on resource based theory, this study, intend to fill this gap by examining innovation types (product, process, marketing and organizational) effects on the performance of SMEs in the context of under developed Sub- Sahara African country, Eritrea.

Result from the current study proved the existence of a significant association between product/service innovation and SME financial performance. This suggests that a rise in service/ product innovation would result in a rise in the SMEs financial performance. The result of this study is consistent with Tsai et al. (2020), Atalay et al (2013) and Calantone et al. (2002), which stated significant and positive service/product innovation and organizational

performance relationship. Hence, SMEs engagement in high levels of service/product innovation would lead to good performance financially.

In this study a significant relationship between process innovation and SME financial performance was supported. Hence this suggests that a rise in process innovation would result in an improvement in SMEs financial performance.

The result is consistent with the findings of Demeter et al. (2021), Varis and Littunen (2010) and Madrid-Guijarro et al. (2013) who attested that process innovations have positive link with organizational performance. Therefore, it can be concluded that, SMEs engagement in process innovation would lead to good performance financially.

The results of this study showed that there is a significant connection between market innovation and SME financial performance. This suggests that an increase in marketing innovation is associated with an improvement in SMEs' financial performance. These findings align with previous studies that have reported a positive and significant relationship between marketing innovation and business performance, as observed in the works of Quaye and Mensah (2019) and Peng et al. (2021). Therefore, it can be suggested that, SMEs involvement in marketing innovation practices would lead to good performance financially.

Result from the current study also attested positive and significant connection between organizational innovation and SME financial performance. This shows organizational innovation has strong, direct impact on business. This finding is also compatible with that by Donkor et al. (2018), Donbesuur et al. (2020) and Gunday et al. (2011). Therefore, it can be suggested that managers need to give more consideration to organizational innovation, which have a decisive role for enhancement of financial performance and innovative capabilities.

Conclusions

In summary, all four types of innovation significantly and positively impact businesses. This underscores the importance of an innovation strategy as a key driver of enterprise performance, which should be developed and implemented as an integral part of the overall business strategy. A precise understanding of the nature of these innovations will help enterprises prioritize their production, marketing, and process strategies and implement them through the right action plans. To achieve their organizational strategic goals, SME managers should ensure sufficient investment in all selected types of innovation. Hence, it is advisable for managers to foster a conducive business environment that promotes innovative activities. This can involve activities like developing new products or services, enhancing the features of existing products or services, eliminating non-value-added processes in production or service delivery, and

innovating in the design of products or services by making changes in appearance, shape, and volume without altering their core functional and technical aspects. Additionally, refreshing routines, procedures, and processes used in enterprise operations in an innovative way can be beneficial. These innovative practices contribute to improved customer satisfaction and enhanced firm performance. Besides its managerial implications, this study contributes empirical evidence to the existing literature on innovation and financial performance within the context of a developing country. The findings can serve as a valuable reference for students and researchers interested in further exploration of this topic. One limitation of this study is its cross-sectional nature, which suggests the need for a longitudinal study to further confirm the positive relationship between dependent and independent variables. Additionally, since this study was conducted in the specific context of Eritrea, future research in other developing countries can enhance the generalizability of the results. Furthermore, this study relied on perceptual financial performance measurement, and therefore, future research may consider incorporating more objective measures to validate the findings.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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Full Length Research Paper

Telework due to covid-19 in organizations in Cameroon: A managerial change or a delusion

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This study focuses on teleworking, the adoption of which involves a managerial adjustment based on digital technology. Its objective is to assess the practice of telework in Cameroonian organisations, particularly the managerial change operated by the management team. To achieve this objective, we adopted the case study method. Thus, from the semi-directive interviews conducted with seven managers of Cameroonian companies and administrations, it appears that telework: is limited to administrative tasks, remote services, and technical design tasks; lacks clear objectives for teleworkers; offers a number of advantages to organisations and teleworkers, but also has disadvantages for the latter; and is not accompanied by mechanisms for remote monitoring of teleworkers. These results show that in the context of forced telework, there may still be shortcomings in the necessary managerial adjustment.

Key words: Organisation, telework, ICT, managerial change.

INTRODUCTION

In 2019, the world faced the advent of a new pandemic: Coronavirus pandemic (COVID-19). To counter the spread of this pandemic, which is unfortunately still raging, governments have taken strong measures, which vary from country to country. In Cameroon for example, on 17 March 2020, the president of the republic took several measures among which are the closure of the air and sea borders; the closure of all public and private learning institutions; the prohibition of public gatherings involving more than fifty persons; the restriction of urban and interurban transport to cases of extreme necessity; giving preference to electronic communications and digital tools for meetings likely to involve more than ten

people; and the strict observation of the hygiene and sanitary measures recommended by the World Health Organisation; which were valid from Wednesday 18 March 2020 until further notice (Biya, 2020).

The implementation of these measures has led to the disruption or even cessation of activities in many organisations, with related consequences on their performance. The organisations that have suffered the most from this pandemic of COVID-19 are certainly those that were not used to liberated management and remote working, with employees defining their own objectives.

In this respect, Frimousse and Peretti (2020a) indicate that with COVID-19, "the real leaders were able to

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transmit positive energy despite the context of uncertainty created by the coronavirus. The others duplicated, from a distance, their hierarchical office models, with demands that were unachievable for an employee, who was now drowning in new tasks that had previously been delegated: childcare and homeschooling". In the same vein, Frimousse and Peretti (2020a) report that "The Covid-19 crisis is challenging a very hierarchical French managerial culture based largely on 'Command and Control.' The health crisis calls for other ways to ensure the existence and cohesion of the social body and to organise collective intelligence in a world where remote working will be structurally more important. The questions of identity, mission, and "what are we doing together? will become even more acute". Frimousse and Peretti (2020b) posit that "The COVID-19 crisis will probably leave its mark on management practices. Managerial practices will change in at least two ways: the lasting widespread use of teleworking and the return to favour of the engineering logic of industrial control in companies. Teleworking is suddenly spreading to all organisations. We are witnessing a widespread use of digital remote working tools such as videoconferencing applications. The most reluctant managers have had to learn to let go of the long-established practice of management by direct supervision."

These comments show us that teleworking remains a path to follow because even if the COVID-19 crisis were to be contained, other crises could still occur. The resilience of organisations would depend on this change in the way they operate. This leads us to ask the following question: After almost four years of COVID-19, what is the assessment of telework in Cameroonian administrations and companies?

This question is very important because the COVID-19 crisis shows us that telework must now be an integral part of the organisation of activities in administrations and companies, with the management that is appropriate in such circumstances. Indeed, it has challenged the very hierarchical managerial culture based largely on 'Command and Control' (Frimousse and Peretti, 2020b).

There has been a great deal of work on the effects of the COVID-19 crisis on organisational management. In this respect, Frimousse and Peretti (2020a), based on the views on the repercussions of COVID-19 on organisational management of one hundred and fifty-five (155) teacher-researchers, experts, consultants, company directors, human resource managers, operational and functional managers of organisations, from sixteen countries spread over five continents, emphasise that this pandemic has led to a reevaluation of the role of proximity and committed organisations to a greater humanisation of management, with new forms of work organisation and life at work, and to an economic model that are more considerate of nature, gender and social equity in response to the strengthening of several major societal trends. Later on, Frimousse and Peretti (2020b) insist on

the need to invest in new online platforms to facilitate remote leadership, but also to reverse decision-making habits by favouring collective intelligence. COVID-19 has led to a forced transition to teleworking. However, organisations now need to make the transition from imposed teleworking to deliberate teleworking, to avoid dysfunctions of all kinds and to react intelligently (Frimousse and Peretti, 2020b). This requires management based on trust and a redefinition of working practices through the dissemination of a culture of cooperation.

Autissier et al. (2020a), in their first collective work, proposed a formalisation to help understand how organisations experienced the COVID-19 crisis and highlighted good practices that could be perpetuated. In their second collective work, Autissier et al. (2020b) consider what will change as a result of the experiments carried out during the crisis.

Mvogo (2021), looking at two hundred and sixty-six small businesses in Cameroon, highlighted the difficulties created for these businesses by COVID-19 and showed that the level of impact of the disruption on the activities of these businesses influenced their operations. Nsegbe et al. (2020) looked at the difficulties encountered by businesses (both large and small) and their impact on their performance.

It should be noted that much of the academic literature on crises, disasters, and turbulence focuses mainly on the stages of prevention/preparation, management, and finally post-crisis learning (Frimousse and Peretti, 2020b). Our study, which looks at the adoption of teleworking as a means of managing and making organisations more resilient in the face of crises, is very much in line with the research carried out by Autissier et al. (2020a, b), Frimousse and Peretti (2020a, 2020b), Nsegbe et al. (2020), and Mvogo (2021).

The aim of this study is therefore to assess the practice of teleworking in Cameroonian organisations, particularly the managerial change brought about by the management team. In other words, the aim is to identify the changes made by these organisations in the context of teleworking and to understand whether these changes are likely to ensure their resilience in the face of crises. This will enable us to provide them with appropriate support if necessary.

LITERATURE REVIEW

The effects of COVID-19 on the functioning of organisations

The advent of COVID-19 led not only to the confinement of large numbers of people but also above all to the closure of many public spaces and borders. Although these measures have achieved their objective of limiting the spread of the disease, they have also had a

significant negative impact on organisations, affecting both their operations and their performance.

In a study conducted and published in 2020, Nsegbe et al. (2020) found that "nine out of ten business leaders believe that they have been negatively affected by COVID-19. This situation is the same in both the formal and informal sectors, whatever the size of the business (...). Nearly 80% of business leaders in the formal sector believe that they are experiencing a moderate or significant slowdown in their activity. In the informal sector, this slowdown concerns almost 82% of heads of informal units". These malfunctions have resulted in a reduction in production, turnover, and the number of employees. In this respect, Nsegbe et al. (2020) point out that "generally speaking, 82% of businesses are experiencing a fall in production. Of these, 69% are in the industrial sector and 26% in services. However, this situation is more pronounced in businesses in the formal sector than in the informal sector, which has proved to be more resilient. In terms of impact, almost half of the businesses negatively affected said that they had seen their production fall by more than 50%. Companies' turnover during the crisis was compared with that of 2019 at the same period. Nearly 95% of businesses have seen a fall. Of these, almost half report a drop of more than 50%". These falls in production and sales have led some companies to revise their staffing levels downwards. The surveys carried out respectively by GICAM (2020) and INS (2020, 2021) are revealing in this respect. According to GICAM (2020) and Nsegbe et al. (2020), this phenomenon has affected 65% of large companies. According to the INS (2020), 62% of small and medium-sized enterprises (SMEs) in the modern sector have been affected by the reduction in the number of employees.

There have also been price rises for certain products. In Cameroon, for example, these increases have mainly "concerned imported food and clothing products. The disruption of logistics chains has reduced supply, while demand has risen sharply, particularly in households where consumption units have remained grouped together and confined for long periods, in an unusual fashion. This rise in demand led to speculation on the part of importers who, despite reminders and controls from the Ministry of Trade, managed to raise prices. In the clothing, IT and telephony sectors, the closure of borders has halted supplies from China. This has led to higher prices, from wholesalers to small retailers" (Nsegbe et al., 2020).

In addition to the disruptions in the aforementioned organisations, temporary or permanent cessation of activities was also noted. They affect nearly 13% of businesses in the informal sector and 16% of businesses in the formal sector, including 5% of large-businesses and 10% of SMEs (GICAM, 2020; Nsegbe et al., 2020). It should also be noted that these businesses that are temporarily or permanently closed are particularly present in education, tourism, catering, and construction (GICAM,

2020; Nsegbe et al., 2020).

It should also be noted that with the closure of borders, some employees have had to spend weeks away from the countries in which they work and therefore away from their places of work. This situation is likely to have a negative impact on relations at work, but also on the life of organisations.

The impact of COVID-19 on organisations was amplified by the fact that they were unprepared for teleworking, which promotes resilience in such circumstances. The lessons learned from the consequences of COVID-19 should encourage organisations to move from traditional management to more flexible management. In this respect, Frimousse and Peretti (2020b) point out that "One of the lasting repercussions of the unprecedented health crisis we are experiencing today on the management of organisations is, without doubt, the increased development of teleworking, despite the reluctance expressed here and there in the world of work. In fact, teleworking is set to become more widespread and, for many organisations (in both the private and public sectors) that are not yet prepared, it will represent a real challenge, if not a work culture". This is no more and no less than a call for the desired development of teleworking in organisations.

The unified theory of acceptance and use of technology as framework for explaining the adoption of telework in organisations

Telework in organisations is a long-standing practice. It was first introduced in the late 1970s (Taskin, 2021). Despite this long history and the many studies that have been devoted to it, there is still no consensual definition of telework. Indeed, some consider work in delocalised business centres, or satellite offices bringing together employees from the same company, to be a form of telework. Others include call centres where telephone operators are grouped together in a location separate from the organisation that employs them. Others include mobile work carried out in various locations outside the office (salespeople, technicians, etc.), as well as telecentres or telecottages, which bring together employees from several companies. Scailerez and Tremblay (2016) point out that "some authors also consider that sales and representation staff, who are generally at customers' premises, but who sometimes work from home, without having another office within the organisation which employs them, are also teleworkers. Finally, the most widespread form of telework today is working from home". Thus, today, in the common usage of the term telework, it is often confused with teleservices (tele-conception, telemarketing, tele-sales, remote assistance, digitisation of information embedded in and/or accessible through databases). Yet there is a difference between the two. Teleworking is a production organisation

concept in which the teleworker works away from the company's production site. Teleservice, on the other hand, is a method of subcontracting services to companies which is organised remotely" (Crouzet, 2002). Thus, while in both (02) cases the work is done remotely, it should be noted that in telework, the employee works on behalf of his employer outside the usual place where he is supposed to work, whereas, in teleservice, it is a subcontracting, and therefore work for a client.

In our understanding, telework is defined as a method of organising or performing work carried out on a regular basis by a natural person under the following conditions: on the one hand, this work is carried out at a distance, that is, outside the immediate vicinity of the place where the result of this work is expected; without any physical possibility for the principal to supervise the performance of the service by the teleworker; on the other hand, this work is carried out by means of computer and/or telecommunication tools, including through remote communication computer systems: of the data useful for carrying out the work requested and/or of the work carried out or in the course of being carried out (Breton, 1994; Taskin, 2003). Telework therefore classically refers to a professional activity carried out wholly or partly at a distance from the employer's premises and making use of information and communication technologies (Korte and Wynne, 1996; Taskin, 2003).

In contrast to the 1980s, when telework was relatively unsuccessful due to trade union opposition, the costs of acquiring and maintaining Information and Communication Technologies (ICTs), the need to change management and organisational styles, and the need to protect information, there has been considerable growth in telework today (Valenduc and Vendramin, 1997; Taskin, 2003). This development can be justified firstly by the phenomenon of globalisation and the development of ICTs, and secondly by the advent of the COVID-19 health crisis.

Telework fundamentally affects the structure of work and control, firstly by giving workers more autonomy to organise, plan and carry out their work. Secondly, by having the ability to erase the rigidities often associated with task specialisation and work boundaries, in the Taylorist tradition (Edwards et al., 2002; Taskin, 2006).

The use of teleworking is seen as an adoption of new technologies in organisations. Thus understood, several models and theories help to explain its adoption or, better still, its use. These include contagion diffusion models, rank models, stock-order models, super-modularity theory, theory of reasoned action (TAR), theory of planned behaviour (TCP), Technology acceptance model (TAM), motivation model, social cognitive theory (SCT), diffusion of innovations theory (DIT), social influence theory (SIT), theory of interpersonal behaviour (TIB), unified theory of acceptance and use of technology (TUAUT) (Fadwa and Ez-zohra, 2019).

In the present research work, we will rely on the Unified

Theory of Acceptance and Use of Technology (TUAUT), in view of its purpose. It should be remembered that none of the previous TUAUT models has been able to explain more than 40% of the variance in intention to use innovations (Fadwa and Ez-zohra, 2019). TUAUT explains 70% of the variance in the intention to use innovations (Fadwa and Ez-zohra, 2019). This confirms its robustness and clearly demonstrates the importance of the factors it considers to have an impact on the digitalisation of companies.

TUAUT is a model developed by Venkatesh et al. (2003). This model is a synthesis of the following eight theories and models of innovation adoption and use: Theory of Reasoned Action (TAR), Theory of Planned Behaviour (TCP), Technology Acceptance Model (TAM), Revised Technology Acceptance Model (TAM 2), Motivation Model (MM), PC Use Model, Diffusion of Innovation Theory (DIT), and Social Cognitive Theory (SCT) (Fadwa and Ez-zohra, 2019).

TUAUT "brings together several variables likely to explain user intention and technology use behaviour" (Ghouly and Mrhari, 2022). In the initial version of TUAUT, Venkatesh et al. (2003) identified three direct determinants of the intention to adopt the technology: expected performance, expected effort, and social influence; two direct determinants of technology use: facilitating conditions and intention to adopt the technology; and four moderating variables: gender, age, experience and context of use (voluntary or compulsory).

Subsequent work has led to several extensions of TUAUT. The most important of these extensions is the inclusion in the model of behavioural expectation, following the observation of a gap between the intention to use technology and its actual use (Sykes et al., 2009; Venkatesh et al., 2008), and the level of education (El-Khalkhali and El Byere, 2018). The expected behaviour is a variable that depends on the facilitating conditions and the intention to adopt the technology. But it also makes it possible to explain the use of the technology. Level of education is a mediating variable, as are the other individual characteristics noted earlier (gender, age, experience).

The moderator variables are not often used by different authors at the same time (El-Khalkhali and El Byere, 2018).

The different variables used in the TUAUT model have very specific meanings. For example:

(1) The expected performance refers to the degree to which an individual believes that the expected use of technology can help them improve their performance at work (Venkatesh et al., 2003). Expected performance includes the following five constructs: perceived usefulness, extrinsic motivation, work compatibility, relative advantage, and outcome expectation (Bello et al., 2022). For Venkatesh et al. (2003), the expected performance is the major explanatory factor in the

intention to use technology;

(2) Expected effort is the degree of ease associated with using technology (Venkatesh et al., 2003). It is the effort required by an individual to learn and use a technology. The expected effort can be broken down into three constructs: perceived ease of use, actual ease of use, and complexity. However, in many studies, these three constructs are summarised in two: ease of use and complexity;

(3) Social influence refers to the impact of environmental factors and variables on the behaviour of the user of a technology (Venkatesh et al., 2003; Ghouly and Mrhari, 2022). These are the pressures exerted by the environment on the decision-maker, which can lead him or her to adopt a technology or to resist it (Bello et al., 2022). These pressures can come from superiors, family, colleagues, friends and awareness campaigns on the use of technology (Ghouly and Mrhari, 2022);

(4) Facilitating conditions refer to the extent to which an individual believes that an organisational and technical infrastructure exists to support the use of technology (Venkatesh et al., 2003). These may include the availability of telecommunications infrastructures, accessibility to these infrastructures, and the knowledge and support needed to use the technology;

(5) The intention to adopt the technology is the subjective likelihood of a person performing the behaviour in question (El-Khalkhali and El Byere, 2018). It is the willingness of actors (promoters or key managers of companies and administrations) to adopt and use technology;

(6) Expected behaviour is understood as a self-declared subjective probability that the user will adopt a particular behaviour (Warshaw and Davis, 1985). This probability is based on the cognitive evaluation of the voluntary and involuntary determinants of the behaviour (Jawadi, 2014);

(7) Sex corresponds to the gender (male or female) of the decision-maker (promoter or principal manager of the company, Director General of an institution, head of a ministerial department);

(8) The age and level of education here are those of the person who has the power to decide on the adoption and use of the technology (Venkatesh et al., 2003). In the case of companies, this may be the promoter, or the main manager, or the Board of Directors; and in government, the head of the ministerial department, among others;

(9) Experience refers to the activities carried out in the past by the person called upon to make the decision to adopt and use the technology (Bello et al., 2022);

(10) The context of use refers to the environment in which the activities of the company or administration take place. It reflects the latitude available to the decision-maker (promoter or principal manager of the company, head of the ministerial department) for the adoption and use of the technology. This latitude (mandatory or voluntary) may result from existing legal or regulatory provisions, or from the perception of threats to survival or

potential losses due to the non-adoption and non-use of the technology (Bello et al., 2022).

TUAUT has been the subject of several empirical validations. In this respect, Dewhurst et al. (2007), based on a survey of SMEs operating in the telecommunications sector in Spain, show that the use of e-government is very significantly affected by the degree of use of information and communication technologies within these companies. These results are supported by the work of Martin and Poussing (2008), who report that the more communication technologies a company uses, the more likely it is to use e-government (Martin and Poussing, 2008; Ghouly and Mrhari, 2022). Other studies focus mainly on the role of managers. In this vein, Nduati et al. (2015) and Ghouly and Mrhari (2022), report that if senior management is not sufficiently trained, informed and made aware of the opportunities offered by the adoption of ICTs, it cannot afford to invest it in most cases very limited financial and human resources in ICTs. In the same vein, Boisvert and Begin (2002) report that the manager's willingness is one of the factors determining the adoption of ICTs by companies. Raymond and Menvielle (2000) conclude that the will of senior management is one of the factors that favours the integration of digital technology into businesses. Hammami (2014) in Tunisia and Yousfi and Matmar (2017) in Algeria came to the conclusion that the degree of use of Internet applications (Intranet, Extranet, competitive intelligence, e-commerce, website) is positively and significantly influenced by the manager's interest in these technologies. This shows that the manager remains a key factor in the adoption and use of ICTs and, by extension, teleworking.

However, the role of the manager is said to be influenced by age, professional experience, and gender. In this respect, Dahab (2001) and Boukef and Kalika (2002), came to the conclusion that younger people (aged 20 to 40) have a better perception of the usefulness of messaging in their work and consider it easier to use. For Raymond and St-Pierre (2005), Riemenschneider and Mykytyn (2000), and Raymond et al. (1998), professional experience makes managers aware of the importance of using ICTs and has a positive influence on the adoption of a 'sophisticated' technological production system. Gefen and Straub (2003) report that the perceived usefulness and presence of e-mail are higher among women than men. These results support those of Linlin (1996), who shows that women send more messages than men.

Furthermore, Rieck and Tung (2005) and Ghouly and Mrhari (2022), note that the perceived advantage of using e-government is a critical factor in the adoption of this new procedure by companies in Singapore. Ahmad et al. (2012) and Ghouly and Mrhari (2022), find that expected performance and expected effort have a significant impact on taxpayers' intention to file electronically. These same authors (Ahmad et al., 2012; Ghouly and Mrhari,

Table 1. Characteristics of the cases and companies studied.

Case	Gender of manager	Age (year)	Level of study	Type of structure	Place of interview	Duration of interview
Case 1	Female	71	Doctorate (Humanities)	Ministry	Yaoundé	40 min
Case 2	Male	56	Baccalauréat + 5 (Civil Engineering)	Ministry	Yaoundé	26 min
Case 3	Male	54	Baccalauréat + 5 (Mathematics)	Distance Education Centre	Yaoundé	1 h 42 min
Case 4	Male	49	Baccalauréat + 5 (Finance)	Company	Douala	1 h 02 min
Case 5	Male	51	Baccalauréat + 4 (Economics)	Company	Yaoundé	57 min
Case 6	Male	49	Baccalauréat + 5 (Mechanical engineering)	Company	Douala	48 min
Case 7	Male	45	Baccalauréat + 5 (Management)	SME	Douala	56 min

2022) add that the complexity of use can be a brake on the likelihood of using this electronic procedure.

Thus, according to TUAUT, it appears that in the same environment, organisations run by young people, women and experienced people would be more favourable to the adoption and use of telework.

Although these different factors will guide us in our exploratory study of telework and its understanding, it is not our intention to confirm or deny certain elements of TUAUT in the Cameroonian context. Rather, it is a question of identifying the determinants of commitment to telework that can also be found outside TUAUT.

METHODOLOGY

The main objective of this study is to assess the practice of telework in Cameroonian organisations. In this exploratory research, we focus on the main decision-makers in companies or public administrations because of their roles in the decision and implementation of telework.

To carry out this research, we chose the case study method, because this phenomenon is new in Cameroon, but also because of the diversity in its application. In such a context, only an in-depth case study can provide an understanding of the phenomenon (Hlady Rispal, 2002).

In this study, the cases are made up of the members of the boards of directors and the main managers of the organisations that use telework. These cases are essentially made up of the managers of the organisations involved in telework. The choice of cases also took into account their availability and willingness to participate in the data collection process.

For data collection, we conducted semi-structured interviews using a thematic interview guide. The guide included the following main points: (1) characteristics of managers who have opted for telework; (2) evaluation of telework; and (3) characteristics of the telework practised (aspects concerned, existence of objectives assigned to teleworkers, control of teleworkers).

The interviews took place in December 2022 and January 2023. These interviews were carried out with seven cases, that is, two ministers, one director in charge of a Centre for Distance Education created in response to COVID-19, three managers of large companies, and one manager of a small and medium-sized enterprise (SME).

Each interview was entirely recorded using a tape recorder (with the permission of the interviewees). The interviews lasted between 26 min and 1 h 42 min.

The cases studied and the length of the interviews can be summarised as shown in Table 1.

It was noted in Table 1 that telework in Cameroon is practised in both companies and administrations. The managers of the structures that practise them are of different ages, levels of education, and training specialties. There are managers under the age of fifty and those over sixty. They are recruited from among specialists in the hard sciences, engineering sciences, humanities, and economic and management sciences.

It should be noted that the interviews were conducted in the cities of Yaoundé and Douala. This is justified by the fact that these two cities are home to 57.4% of the companies operating in Cameroon (Institut National de la Statistique, 2018) and the decision-making centres for government departments.

The fact that the study takes into account companies operating in several industries and government departments may provide a wealth of information on the changes made to management by COVID-19 in the Cameroonian environment.

It should be noted that authors seem to be divided on the number of cases to be included in an exploratory study. For Yin (1994), a number of cases of less than four does not prevent the objective of the study from being achieved. As for Eisenhardt (1989), the number of cases should be between four and ten. When it is less than four, it makes it difficult to generate a theory. The number of our cases, which is seven, is therefore in line with the recommendations of authors (Yin, 1994; Eisenhardt, 1989) who have worked on the subject, and therefore pose no problem in terms of the validity of our results.

To process the data collected, we used thematic content analysis (Paillé and Mucchielli, 2012), since the data in question are discourse-based. With this in mind, each interview was transcribed in its entirety so that we could work on the original verbatim. We transcribed the interviews ourselves. Then, for each theme, we manually grouped the fragments of text from our interviews into sub-themes.

RESULTS

The main findings of the semi-structured interviews are as follows:

Telework in Cameroonian organisations

From the semi-structured interviews conducted, it appears that telework is mainly being introduced in Cameroonian organisations following the advent of COVID-19, even though online sales were already being practised. In this respect, Case 1 notes that: "COVID-19 forced us to physically distance ourselves and

temporarily close our schools, which led us to come up with solutions for continuing our activities". For Case 4, "teleworking was not practised in our company here in Cameroon before the advent of COVID-19. But with the constraints imposed by the disease, important measures were taken". Firstly, the "IT system has been overhauled to enable employees whose work can be done remotely to work from home. As for those whose work cannot be done remotely, a rotation system has been instituted to avoid having a large number of people in the same place at work". For Case 5, "No, you had to be on site and there was no possibility of working remotely".

These results show that teleworking is a new phenomenon in Cameroonian organizations. Indeed, for the seven cases studied (that is, 100%), telework only arrived in their organizations with the advent of COVID-19. Moreover, a survey by the Institut National de la Statistique (INS, 2020) reveals that only 16% of companies operating in Cameroon carried out teleworking in 2020, and these were mainly large companies. In 2021, a second survey conducted by the INS showed that the increase in the use of digital platforms was observed in large companies (46%), followed by SMEs (37%) and IPUs (13%).

Teleworking in Cameroonian organisations takes several forms. It involves holding meetings by videoconference, carrying out administrative tasks, remote services, and certain technical tasks away from the usual workplace. The following comments are evocative in this respect. For Case 1, "...These solutions include videoconferencing for meetings, staff rotation to avoid having several people in the same office at the same time, distance learning, distance guidance, and counselling, online meetings with partners, online data collection, etc." For Case 2: "Our meetings are held by videoconference. Files are prepared and sent to staff electronically. They process them and send them up the hierarchy electronically. This means we can work from home, away from the office, because we need to limit contact. Physical documents are scanned and put into the electronic processing circuit. Files are thus circulated electronically. Work that used to be done exclusively in the office can now be done remotely. Case 3 notes that: "In order to ensure the continuity of schooling, a Distance Education Centre was set up in Yaoundé for secondary education. When it opened, this centre distributed lessons and organised distance revision sessions for pupils in official examination classes to enable them to complete the 2019/2020 school year, because COVID-19 arrived in Cameroon in the middle of the school year and forced the government to close schools. To avoid a blank year, this remote support was needed. Today, the government has turned this constraint into an opportunity. Some teachers have been trained in distance learning. Lessons at all levels and in all subjects are being digitised. Lessons continue to be delivered remotely to pupils at all levels according to set timetables. An online

helpdesk has also been set up to provide psychosocial support and guidance for students. Digital lessons can also be viewed by pupils at any time, as they are recorded on the platform created for this purpose. The government also plans to set up a school radio and television service to cover areas without Internet access". The result is a hybrid model of education in which face-to-face and distance learning are combined. For Case 4, "It should be noted that some operations were not possible by teleworking because the level of security in the transfer of data was not sufficient. The applications put in place allowed customers to withdraw money from their accounts, to make transfers from Yup. However, the cashier staff continued to work face-to-face". For Case 5, "We note that there are tasks that we can do remotely and others that we cannot. There are tasks that require equipment in the hands of a physical person. However, not all services are teleworked because there are many aspects that need to be taken into account, such as the social aspect. To telecommute an employee, you need to be able to trust them, lest they disappear and only turn up for work. That does not rule out the fact that the applications development department works mainly from home, but we do have meetings from time to time to turn up the heat. For Case 7, "Teleworking is essentially about communicating with customers. It is also about communicating information with management".

It is thus clear that telework in Cameroon is essentially concerned with service activities and communications with partners (suppliers, customers) or within organizations, meetings, teaching, design activities, and the processing of files in companies and administrations.

Appreciation of telework in Cameroonian organisations

Teleworking in Cameroonian administrations and companies is appreciated in different ways. For some, despite the costs associated with its implementation and the problem of connection, teleworking makes it possible to devote more time to work and to better organise time between professional and non-professional activities. For others, it is devastating for married life and social ties. The following comments are evocative in this respect. For Case 3: "... Teleworking has several constraints because it requires a computer, an Internet connection, and specific software. This requires a cost that not everyone can afford. To this must be added the instability of the Internet connection in our country. But it makes an undeniable contribution to the conduct of activities". For Case 4: "... Our company's evaluation of teleworking showed that, in terms of performance, staff sometimes worked until 10 pm. There were exchanges between staff as part of their work, even at late hours. However, from a social point of view, teleworking has had a negative impact, as it has destabilised certain couples who could

not bear to see each other all day long. So, while some people want it, others find it harmful". For Case 5, "Apart from the costs, there are other benefits that come under the social aspect. There are fewer conflicts in the office, we see less of each other and we are more focused on our work. The other side of the coin, is that this practice also entails risks, which I have called macro reasons. Employees will tell you: 'they cut off the power in their neighbourhood', 'I didn't have internet', 'my mum had a stroke'. But in the end, teleworking is perfect, it is very good. If so far all my departments are not teleworking, it is only because the employees' mindset has not yet been forged for it. They are not ready. So, in addition to the advantages already listed by Cases 3 and 4, teleworking also helps to limit conflicts at work. For Case 6: "Teleworking has a lot of advantages because you spend a lot of time with the family, you manage your schedule and your day better and keep better track of your personal activities. When we ask staff to stay at home and work, some are available and some are not, which makes it difficult when your manager contacts you. It also makes it difficult to know whether you are there or not and creates doubt. With teleworking, we have found that we spend more time working than we would if we were in the office. Because, without realising it, we go beyond the time required. Teleworking can have its drawbacks, such as bad faith on the part of employees, but it is a great experience. Today, to create a friendly working environment, if the employer has the opportunity to offer teleworking to his employees, he should do so". Case 7, for his part, points out that: "What I think of teleworking is that I can work remotely, go to Douala to do the work that needs to be done in Ngaoundéré, I can also do it in Maroua or Garoua, but that does not prevent our organisation from functioning. However, there is a problem with the networks. If we remove this part, teleworking reduces a certain rigidity and heaviness in the work. Teleworking is therefore the working tool of the future, improving productivity and increasing profitability".

Overall, we note that telework provides a number of advantages for both organisations and their staff, despite its disadvantages.

Control of teleworking employees in Cameroonian organizations

In Cameroon, opinions on the control of teleworkers in organizations are diverse. For some, there are no control mechanisms, for others it is the time allowed to do the work that is taken into account, while others rely on the professional conscience of teleworkers.

For example, in Case 2: "We don't have any specific control over employees. They are supposed to process the files assigned to them and return them to the hierarchy". Case 5 points out that: "To control employees who are teleworking, we give them tasks with deadlines.

Otherwise, we really cannot control them". For Case 6: "When the employer puts you in the conditions to feel at ease, to grow, to enhance your professional know-how, you should in return know that he is giving you the means to succeed and you at your level must put all these means into play so that the 02 parties are satisfied. So there is no way of controlling them, they are not children to be run after. We are aware of what is at stake. For Case 7, "We set the objectives for the team leaders, we tell them to avoid at all costs conflicts with the camps caused by the tenants, problems with the administration, with the outside world, so they have to coordinate the activities. Yes, because they have the freedom to organise their work as they please, there is not too much constraint".

It thus appears that control mechanisms for teleworkers in Cameroonian organisations are not very well developed. This situation gives teleworkers a certain amount of latitude in carrying out the tasks entrusted to them. This situation, which from the outset is an element of motivation for teleworkers, can also be a source of counter-performance, as it can lead the people concerned to focus mainly on their personal activities to the detriment of those of the organization.

DISCUSSION

The results of the interviews carried out with our various cases show that telework in Cameroon:

- (1) is limited to administrative tasks, remote services, and technical design tasks;
- (2) lacks clear objectives for teleworkers;
- (3) brings several advantages to organisations and teleworkers, but is also a source of disadvantages for the latter;
- (4) is not accompanied by mechanisms for monitoring teleworkers.

The limitation of telework in Cameroonian organisations to administrative tasks, remote services, and technical design tasks is similar to what happens in other countries. These are activities that lend themselves to telework, unlike production work in factories, which must be done face-to-face. This shows that not all activities are eligible for telework.

In organisations in Cameroon, teleworking is practised in the same way as face-to-face work. The teleworker has no objectives predefined by the organization. Thus, this teleworking is done without individual and collective rules governing this activity as recommended by many authors and practitioners (Dumas and Ruiller, 2018). However, in such a context, management by objectives becomes a necessity. Without predefined objectives, it becomes impossible to assess the results achieved. Indeed, it is for this reason that many authors believe that in such situations of 'self-management', the manager's

role is to offer his or her staff clear objectives and to support them in creating new organisational routines, developing their self-organisational capacities in order to achieve the performance objectives set and to do so with little control (Manz, 1986; Cohen et al., 1997; Dumas and Ruiller, 2018).

Regarding the advantages and disadvantages of telework for organisations and teleworkers, our results corroborate those of Taskin (2003) and Scaillez and Tremblay (2016). The fact that teleworkers spend more time at work can be explained by the latitude they have in managing their time, but also by the fact that they are not subject to the stress of the distance between home and the workplace. Indeed, this route can lead employees to arrive late for work or to leave work a little early in order to get home at a reasonable time in the evening. However, spending more time at work raises a number of problems. Time spent working beyond normal working hours needs to be legally regulated, as it should be considered overtime. The same applies to health problems that may arise while teleworking. This situation requires appropriate regulations, which are still lacking in the Cameroonian environment. Without such regulation, the teleworker would be exposed to many risks that could compromise the future of telework.

In addition, the cost of investment in computers, software, Internet connection, and other digital tools is indispensable for the implementation of teleworking. It should be noted, however, that with the advent of COVID-19 and its corollaries of closed borders and confinement, the costs of these investments have increased, putting them beyond the reach of some organisations that had not already done a minimum in this area. However, it should be noted that these investments remain necessary, given the role of telework in the resilience of organisations.

As far as the lack of control mechanisms for teleworkers is concerned, the situation can be explained by the fact that these organisations introduced telework in a hasty manner, without prior preparation. However, such a situation is not likely to enable the teleworker to better organise his or her time between professional and personal activities, which can then be detrimental to the organisation's performance. It should be remembered that "telework contains, in its very conception, the notion of autonomy since the teleworker-client relationship tends to become virtual. They do, nonetheless, require the application of formal evaluation procedures, leading to monitoring of the actor's behaviour or results" (Pontier, 2014). Thus, "telework makes it essential to define new ways of organising the employee's activity, based on an idea of autonomy but also of remote control exercised by the manager, with a view to ensuring that the employee's activity is consistent with the organisation's objectives. It therefore seems interesting to define how, in the specific context of telework, it will be possible to devise ways of controlling the individual that preserve the autonomy

necessary for effective remote working" (Pontier, 2014). This situation in which Cameroonian organisations and teleworkers finds themselves calls for urgent regularisation, if we want to avoid a drift away from telework.

An overall reading of the results obtained from the TUAUT perspective shows that telework was adopted by organisations because of the possibility it offered of continuing to carry out their activities, which can be seen here as an expected benefit. But, despite this strong constraint, we note that telework has only been implemented in a limited number of organisations, particularly those headed by highly educated managers over the age of forty. Thus, our results in relation to the age of managers who have implemented telework seem to deviate from the precepts of TUAUT. Also, the availability of staff computers and Internet connection was a facilitating condition for the implementation of telework.

Finally, it should be noted that the implementation of teleworking was done under duress. Hence, some of the shortcomings mentioned earlier (lack of objectives, lack of control) are likely to hamper its smooth operation and may have a negative impact on the performance of teleworkers and hence on the performance of the organisation.

Conclusion

The main objective of this study is to assess the practice of telework in Cameroonian organisations. Thus, from semi-directive interviews with seven managers of companies and administrations, we note that telework in Cameroonian organizations: is limited to administrative tasks, remote services, and technical design tasks; lacks clear objectives for teleworkers; provides a number of advantages for organisations and teleworkers but is also a source of disadvantages for the latter; and is not accompanied by mechanisms for monitoring teleworkers.

By identifying the characteristic elements of telework in Cameroonian organisations, this study makes a scientific contribution to the debate on the practice of telework. These results also make it possible to question the relevance of TUAUT as an explanatory model of the adoption of technological innovations in the context of telework, particularly with regard to the age of the manager.

From a managerial point of view, the results obtained constitute a challenge for companies, business associations, and public authorities in Cameroon. Indeed, the absence of objectives assigned to teleworkers, of their remote control by managers, and of a regulatory framework for the management of teleworkers is likely to weaken the sustainability of telework. Yet telework is intimately linked to the future of organisations in today's world, characterised by the role of ICTs in their

operations. It is therefore becoming urgent for companies, with the support of business associations (GICAM, Syndustricam, etc.), to find ways of setting coherent objectives for teleworkers and providing tools for their remote control. As far as the public authorities are concerned, there is a need to establish a regulatory framework for telework, particularly as regards the management of overtime, accidents at work and occupational illnesses, and the control of teleworkers by managers.

However, this research is limited by the small size of the sample, which makes it difficult to generalise the results. This notwithstanding, we believe that this research has largely achieved its objective, because being exploratory, it was not intended to make generalizations, but to evaluate the practice of telework in Cameroonian organizations. It has the merit of having tackled a topical problem that is crucial for the future of organisations. Moreover, the aforementioned limitation and the results obtained open up avenues for future research. Future work could be carried out on larger samples to confirm or refute the conclusions of this study, which could then be used to develop a model for introducing telework into organisations.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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