

The Living Environment of Management Control Digitalization: An Analysis Based on Perceptions and its Determinants

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ABSTRACT: This study focuses on the digitalization of management control in Cameroonian small and medium-sized enterprises (SMEs). It pursues three main objectives: to analyze the perceptions of managers and employees regarding this transformation, to identify the determinants that facilitate or hinder it, and to evaluate its effects on organizational performance. In a country where these enterprises represent 95% of the economic fabric but struggle to survive beyond five years, digital transformation is often presented as a solution. However, in the field, things are far from being so simple. Through a qualitative study conducted with seven SMEs in the city of Douala, we sought to understand how stakeholders experience this digitalization. The results paint a contrasting picture: while digitalization is largely perceived as a strategic lever (time savings, information reliability, transparency), it encounters very real obstacles – high costs, insufficient skills, failing infrastructure and, above all, a certain "culture of opacity" where digital transparency is feared. Ultimately, performance does not arise from technology itself, but from the way actors adopt and hybridize it with their local practices.

KEYWORDS : Digitalization; Management control; Organizational performance; SMEs

I. Introduction

The Cameroonian economy rests on a very specific foundation: small and medium-sized enterprises (SMEs). With nearly 95% of the entrepreneurial fabric and 40% of the Gross Domestic Product (GDP), they constitute both the heart and the engine of national activity (INS, 2023). However, this economic engine shows signs of breathlessness. The five-year survival rate of SMEs is capped at under 45%, and in certain sectors such as commerce or services, the mortality rate reaches nearly 60% (MINPMEESA, 2024). This persistent fragility raises questions among observers, who often point to management practices that have remained highly traditional: a concentration of power around the manager, largely intuitive decision-making, and an organization strongly imbued with orality and interpersonal relations (Chapellier, 1997). Faced with this observation, the question of modernizing management tools and methods appears to be a priority.

In parallel, the literature agrees on a profound transformation of management control. Driven by the digital wave, the controller's profession is changing radically. The repetitive tasks of data collection and compilation are progressively automated thanks to integrated management software (ERP), business intelligence (BI), and big data. The management controller can thus refocus on higher value-added activities: analysis, advice, and anticipation. They become a true business partner, a strategic partner for decision-makers (Gaga et al., 2025; Badre et al., 2024). This evolution redefines not only their skills, but also their place within the organization. In the same

vein, numerous studies emphasize that the digitalization of management control is not limited to a simple change of tools; it implies a transformation of roles, processes, and organizational culture.

Bringing these two observations together reveals a major tension. On one hand, Cameroonian SMEs face an imperative need to modernize their management practices in order to survive and develop. On the other hand, the digitalization of management control offers enticing theoretical promises in terms of efficiency and performance. Yet, the gap between these promises and the reality on the ground seems immense. In Cameroon, digitalizing management control is not simply about acquiring software. It means confronting a harsh environment: dissuasive investment costs, a scarcity of technical skills, unstable electrical and digital infrastructures, and, more deeply, a managerial culture where information is often considered an attribute of power. Digital transparency is sometimes experienced as a threat, because it exposes and redistributes the cards of informal power. Bello (2021) describes this phenomenon as a "culture of opacity." A survey conducted by GIZ (2023) confirms the scale of the phenomenon: 42% of Cameroonian managers admit to seeing digital transparency as a risk to their authority.

It is in this context that our research is situated. It seeks to answer the following central question: how does the digitalization of management control affect the organizational performance of Cameroonian SMEs? To answer this, we have structured our proposal into three main parts. First, we provide an overview of the digitalization of management control and its evolution. Next, we present the theoretical framework that guides our analysis, combining the Resource-Based View (RBV) with the Technology Acceptance Model (TAM). Finally, we outline the methodological approach adopted, from which the results obtained in this study derive.

II. Conceptual Issues of Management Control Digitalization in SMEs

The concept of management control has been the subject of numerous definitions since its emergence in the managerial literature. Anthony (1965), considered one of the pioneers of the discipline, defines management control as "the process by which managers ensure that resources are obtained and used effectively and efficiently to achieve the organization's objectives." This definition, rooted in a traditional perspective, emphasizes the verification of the conformity of results with set objectives and the steering role of managers. For Anthony, management control is situated at an intermediate level between strategic planning and operational control, and relies essentially on accounting and budgetary tools. This conception has been enriched by other authors. Thus, for Bouquin (2008), management control is "a steering mode that relies on information and aims to orient managers' actions towards the organization's objectives." This definition emphasizes more the prospective dimension and the steering role, rather than simple a posteriori control. Simond (2003) proposes a broader definition by considering management control as a set of devices and practices aimed at mastering the functioning of the organization and influencing the behavior of its members. In a more recent perspective, the francophone literature (Löning et al., 2013) defines management control as "a set of devices and practices aimed at shedding light on the decision-making process of an organization's actors, by providing them with relevant information, and encouraging them to act towards the organization's objectives." This conception explicitly integrates the decision-making and behavioral dimension, which is central to our analysis of digitalization. Within the framework of our research, we retain a definition that integrates both the technical and human dimensions of management control. We consider management control as an organizational steering system that articulates information and planning tools with mechanisms influencing the behavior of actors, with the aim of orienting the organization towards the achievement of its strategic objectives.

Furthermore, the concept of digitalization is often confused with that of informatization. However, these two notions cover distinct realities. Informatization refers to the adoption of IT tools to automate existing tasks, while digitalization implies a deeper transformation of processes, roles, and organizational culture. For Parmentier et al. (2020), digitalization is "a socio-technical transformation process that deeply modifies the practices, professions, and business models of organizations." It is not limited to the use of digital technologies, but encompasses the organizational, cultural, and strategic changes that accompany this adoption. In light of the above, we define the digitalization of management control as the integration of digital technologies (ERP, business intelligence, Big

data, etc.) into organizational steering processes, leading to a transformation of data collection, processing, and analysis practices, as well as an evolution of the roles and skills of the actors involved.

Since the consequence of the digitalization of management control is performance, and given that it is a polysemous concept, we focus on its organizational dimension. For Morin et al. (1994), performance is "the achievement of organizational objectives, whether economic, social, or environmental in nature." In our study, we adopt a broad conception of organizational performance, which integrates both economic criteria (cost control, profitability), operational criteria (reactivity, quality of information), and more qualitative criteria (satisfaction of actors, improvement of decision-making processes). This multidimensional conception seems particularly well-suited to the context of SMEs, where performance is not reduced to financial indicators.

The definition of SMEs varies according to contexts and reference bodies. In Cameroon, Law No. 2010/001 of 13 April 2010 on the promotion of SMEs defines a small enterprise as one employing between 1 and 15 people and achieving an annual turnover of less than 50 million CFA francs, and a medium-sized enterprise as one employing between 16 and 100 people and achieving a turnover between 50 and 500 million CFA francs. Beyond these quantitative criteria, SMEs present specific organizational characteristics. As Chapellier (1997) points out, SMEs are often marked by a strong centralization of power around the manager, low formalization of processes, intuitive decision-making, and a managerial culture steeped in interpersonal relationships. These specificities have important implications for the digitalization of management control.

II.1. Evolution of Management Control: From Traditional to Digital

Management control has undergone significant evolution since its origins. In its traditional version, it relied essentially on accounting and budgetary tools, and the management controller played the role of a specialized technician, focused on collecting and presenting financial data. This conception, inherited from Taylorism and formalized by Anthony (1965), favored a posteriori control and the sanctioning of deviations. The main objective was then to verify the conformity of results with set objectives.

The advent of information technologies has progressively modified this conception. The computerization of accounting systems, followed by the emergence of ERPs, has made it possible to automate data entry and processing. More recently, the explosion of big data and the development of business intelligence tools have paved the way for finer, real-time performance analysis. The digitalization of management control is therefore distinct from simple computerization. It does not merely consist of replacing paper supports with electronic ones; it implies a redesign of processes, roles, and skills.

This transformation is accompanied by a paradigm shift. The management controller evolves towards a business partner role, that is, a strategic interlocutor capable of supporting operational staff in decision-making (Gaga et al., 2025; Badre et al., 2024). This transition from a profession centered on information processing to a profession oriented towards value creation is one of the major changes induced by digitalization. However, this transformation does not happen by itself. It presupposes a redefinition of boundaries between departments, an evolution of collaboration modes, and an appropriation of new tools by all actors.

II.2. The Digitalization Process: Crossed Perspectives and Positioning

The digitalization of management control cannot be decreed; it requires a structured approach. Several authors propose step-by-step models. Parmentier et al. (2020) distinguish four phases: digitization, digitalization, digital transformation, and digital innovation. Gaga et al. (2025), for their part, describe a path going from the automation of repetitive tasks to predictive analysis, through interactive reporting.

In a synthetic way, the digitalization process can be apprehended through eight phases: the assessment of the current state, the definition of a strategy, the identification of processes to digitalize, the choice of adapted tools, data collection and processing, security, user training, and continuous evaluation. An analysis of these phases indicates that they are not linear. They intertwine in practice. Digitalization is an iterative process where the

learning achieved at each stage can lead to revisiting previous choices. Furthermore, the human and cultural dimension is transversal to all these phases and often constitutes the main obstacle to the success of the process.

II.3. The Posture of SMEs Facing Management Control Digitalization

The posture of Cameroonian SMEs facing digitalization is marked by profound ambivalence. On one hand, managers perceive it as a legitimate opportunity to professionalize their management, secure information, and gain responsiveness to market demands (Chapellier, 1997; Laviolette et al., 2019). On the other hand, this aspiration clashes with tangible obstacles: often insufficient financial resources, rare technical skills, and managers overwhelmed by daily urgencies. Beyond these material constraints, digitalization disrupts deeply anchored cultural references. In organizations where authority is centralized and where trust relies on interpersonal relationships, digital transparency is sometimes feared as a threat to established power balances (Bello, 2021). Faced with this dilemma, SMEs generally favor a pragmatic and incremental approach, testing hybrid solutions before committing to more integrated systems. In this context, our positioning will consist of showing how these aspirations clash with structural and cultural constraints, and the way in which actors' perceptions condition their appropriation of digital tools.

III. Combining Resource-Based Theory and the Technology Acceptance Model

After laying the foundations of management control digitalization and analyzing the specific posture of SMEs facing this transformation, we now specify the conceptual tools that allow us to analyze its deployment in Cameroonian SMEs. To do this, we mobilize a complementary dual theoretical approach: the Resource-Based View (RBV) and the Technology Acceptance Model (TAM).

The Resource-Based View (RBV), also called the resource-based theory, finds its origins in the work of Penrose (1959) on firm growth. It was formalized in the 1980s and 1990s by authors such as Wernerfelt (1984), Barney (1991), and Peteraf (1993). This theory proposes an endogenous vision of performance: it considers that the sustainable performance of a firm depends on its internal resources, provided they meet certain criteria.

The fundamental statement of the resource-based theory rests on the idea that firms are sets of heterogeneous resources and that this heterogeneity is the origin of performance differences. According to Barney (1991), to constitute a source of sustainable competitive advantage, a resource must possess four characteristics: Value: the resource must allow the firm to exploit an opportunity or neutralize a threat in its environment. Rarity: the resource must be rare, that is, held by a limited number of competing firms. Imitability: the resource must be difficult to imitate or substitute by competitors. Organization: the firm must be organized to fully exploit the potential of the resource.

The resource-based theory functions according to a mechanism that links internal resources to firm performance. This mechanism can be broken down into several steps: First, the firm identifies and evaluates its internal resources. This evaluation is done through the VRIO framework: which resources are valuable, rare, difficult to imitate, and well organized? Second, the firm combines its resources to develop capabilities, that is, aptitudes to use resources effectively to accomplish specific tasks. These capabilities are often transversal and involve complex organizational routines. Third, the firm deploys its capabilities to implement strategies that allow it to create value and differentiate itself from competitors. It is at this level that competitive advantage manifests itself. Fourth, the firm engages in a learning and innovation process to renew and improve its resources and capabilities, which allows it to maintain its competitive advantage over time.

This mechanism was deepened by Teece (2007) with the concept of "dynamic capabilities." According to this author, sustainable performance depends not only on existing resources, but on the firm's capacity to reconfigure its resources in response to environmental changes. Dynamic capabilities are defined as "the aptitude of an organization to integrate, build, and reconfigure its internal and external competencies to face rapidly changing environments."

Within the framework of this research, resource-based theory allows us to analyze management control digitalization as a process of constructing new organizational resources. We mobilize this theoretical framework to understand why some SMEs derive an advantage from their digital investments while others do not. Applied to our object of study, RBV suggests that it is not technology per se that creates competitive advantage, but the way the firm combines this technology with its existing resources—human skills, organizational culture, internal processes—to develop unique capabilities. Digitalization can thus be seen as a process of constructing new resources: digital skills, integrated information systems, data culture. The mobilization of this theoretical framework in our study occurs through the analysis of the resources mobilized by SMEs in their digitalization process. We examine notably: Physical resources: IT equipment, software, digital infrastructures; Human resources: the skills of managers and employees in management control and digital tools; Organizational resources: corporate culture, management routines, trust among actors. Our hypothesis, inspired by RBV, is that the organizational performance resulting from digitalization depends on the capacity of SMEs to develop intangible resources (trust, training, data culture) that complement their technological investments.

III.1. The Technology Acceptance Model (TAM): Foundations and Contributions

III.1.1. Foundations of the Model

The Technology Acceptance Model (TAM) was developed by Davis (1989) in the context of his work on the factors of information technology acceptance. This model is rooted in the tradition of the theory of reasoned action and planned behavior (Ajzen & Fishbein, 1980), which postulates that the intention to adopt a behavior is the most immediate predictor of actual action. According to TAM, the acceptance of a technology is determined by two main perceptions: perceived usefulness on one hand, and perceived ease of use on the other. Regarding perceived usefulness, it is the degree to which an individual believes that using the technology will improve their performance at work. This perception is influenced by the expected benefits in terms of efficiency, productivity, or quality. For perceived ease of use: it is the degree to which an individual estimates that using the technology will be simple and will not require excessive effort. These two perceptions influence the attitude towards the technology, which in turn conditions the intention to use and, finally, actual use. The model integrates social and contextual factors (Venkatesh et al., 2003).

III.1.2. Mobilization of TAM in our Study

In our research, TAM allows us to analyze the way in which actors perceive and adopt digitalized management control tools. We examine notably: Perceived usefulness, from which managers and employees consider that digitalization improves their performance. Is this perceived usefulness affected by the fear of losing power (culture of opacity)? Regarding perceived ease of use: to what extent do actors estimate that digital tools are simple to use? Is this perception reduced by the lack of digital skills? The acceptance of digitalized management control tools depends on these subjective representations, which can vary according to status (manager, financial manager, operational) and experience.

III.2. Theoretical Interweaving of Management Control Digitalization

Associating RBV and TAM allows us to grasp both the strategic dimension and the human dimension of management control digitalization. RBV emphasizes the organizational resources and capabilities necessary to leverage technology. TAM sheds light on the individual mechanisms of acceptance, which condition the effective appropriation of tools. These two theories complement each other in the sense that RBV indicates which resources the firm must possess or develop to succeed in its digital implementation (skills, culture, routines). TAM shows us how these resources are perceived and used by individual actors. Organizational performance then appears as the result of a co-construction: it emerges from the way firm resources interact with actors' perceptions and uses.

This theoretical complementarity allows us not only to avoid reducing digitalization to a simple technical problem, but also to consider it as a complex social and organizational process, where representations, interests, and capabilities combine to produce differentiated effects.

III.3. Operationalization of Variables

To operationalize our analytical framework, we identified the following variables: dependent variables (organizational performance, measured through time savings, information reliability, improved communication, increased turnover, and customer satisfaction); independent variables (perception of digitalization (perceived usefulness, perceived risks, general attitude) and determinants of adoption (favoring and inhibiting factors)); and as a mediating variable (appropriation of tools, training received, actual use, and hybridization with local practices). This analytical model postulates that perceptions and determinants (independent variables) influence the appropriation of tools (mediating variable), which in turn determines organizational performance (dependent variable). The data necessary for measuring these variables were collected through semi-directive interviews, in accordance with our qualitative approach.

IV. Research Methodology

After establishing our theoretical framework, we now present the methodology adopted to answer the various questions that drive this study. This work falls within an interpretativist paradigm, which privileges the understanding of the meaning that actors give to their actions and their environment. This leads us towards a qualitative methodology, based on a multiple case study, adapted to the exploration of complex and contextualized phenomena (Wacheux, 1996).

IV.1. Case Selection and Data Collection

Seven SMEs in the city of Douala were selected according to a principle of maximum diversity (activity sectors: services, commerce, light industry; size: from 5 to 50 employees; degree of digitalization: ranging from the absence of specialized tools to the use of management software). This choice aimed to obtain a variety of situations allowing for the identification of regularities while respecting the singularity of each context.

We conducted semi-directive interviews with managers or those responsible for financial and control aspects, for a total of seven interviews. The average duration of the interviews was half an hour. The interview guide explores four main themes: the perception of digitalization (advantages, risks, representations); the determinants of implementation (motivations, obstacles, mobilized resources); current tools and practices (software, dashboards, reporting); and the perceived impacts on organizational performance (efficiency, quality of information, decision-making). The interviews were recorded with the participants' consent and transcribed in full. Data collection took place between December and March 2026. We also had access to some internal documents (examples of dashboards, reports) which served as complementary material.

IV.2. Data Analysis

We conducted a thematic content analysis (Wacheux, 1996). After a familiarization phase with the corpus, we carried out manual coding by identifying units of meaning. The codes were grouped into categories, then into main themes. The comparison of cases allowed us to identify regularities and divergences, ensuring a certain internal validity. To strengthen the reliability of the interpretation, we carried out a triangulation by comparing the statements of different interlocutors within the same company.

IV.3. Ethical Considerations

The anonymity of the companies and respondents was rigorously preserved. The names of the companies and individuals were anonymized in the transcripts. Each participant gave their informed consent after being informed of the research objectives and data processing methods. We also ensured that the restitution of the results would not allow the identification of the persons or companies concerned.

V. Results: Perceptions, Determinants, and Contrasted Impacts

The analysis of the interviews reveals three structuring dimensions: ambivalent perceptions of digitalization, multiple obstacles to its implementation, and the variability of its impacts depending on contexts.

V.1. Perceptions: Between Expected Modernization and Symbolic Threat

The majority of managers perceive digitalization as a necessity to remain competitive. They highlight tangible benefits: time savings in report generation, reduced data entry errors, and faster access to reliable indicators. A manager in the services sector testifies: "Before, to have a sales report, we had to wait a week. Now, with our little software, I have it in real time. I can react immediately if it drops." This type of discourse shows that perceived usefulness (TAM) is strong, particularly in terms of operational efficiency.

However, this positive vision is counteracted by negative perceptions, especially among employees and certain middle managers. The "culture of opacity" (Bello, 2021) is a recurring theme. Digital transparency is experienced as a loss of control and a risk of exposure. A financial manager explains: "Here, information is power. If the figures are on software that everyone can see, how do I keep my authority?" This type of perception fuels often silent, but powerful, resistance. It shows that perceived usefulness can be counterbalanced by a perceived threat to power.

These contrasting perceptions are not static; they evolve with experience. In certain companies, initial successes achieved through digitalization have made it possible to reduce resistance and progressively transform representations. In others, on the contrary, the lack of support has reinforced initial fears. The set of responses relating to the different perceptions of digitalization is summarized in the table below:

Categories of perception	Proportion of respondents	Illustrative Verbatim	Analysis
Positive Perceptions			
Perceived usefulness (time savings, reliability, decision support)	71,4% (5/7)	« Digitalization has made tasks quite easy and fast [...] and provides some assurance about data quality.» (WISE CONSULTING)	According to TAM, perceived usefulness is the main driver of adoption.
Facilitated communication	100% (7/7)	« We can work remotely. We can work simultaneously. » (PCIEF)	Digitalization is unanimously recognized as a vector for improving communication.
Competitive advantage	42,9% (3/7)	« Customer have trusted us more, given that there is traceability, transparency in management. » (JN CONSEIL)	Transparency is perceived as an asset, in line with RBV.
Negative Perceptions			
Threat to power (culture of opacity)	57,1% (4/7)	« These managers see that these tools are a danger for them, because it controls	The culture of opacity constitutes a major cognitive barrier.

		their activity rather than enhances it. » (PCIEF)	
Refusal of transparency	28,6% (2/7)	« We do not want transparency. Because if we digitalize everything, they will be able to trace our transactions. » (PCIEF)	Transparency is perceived as a threat to opaque practices.
Fear of depersonalization	28,6% (2/7)	« People always like to do everything manually and in a personalized way. » (EM SARL)	Conflict with standardization.

Source: Our own work

V.2. Determinants: Structural, Cognitive, and Cultural Obstacles

The interviews identified three categories of obstacles, which interact with each other. Financial and material obstacles (the initial cost of software and equipment is cited as the primary obstacle). A business owner deplores that: "ERPs, we talk about them, but the prices are unaffordable for us." The instability of infrastructures (power cuts, erratic internet connection) aggravates this difficulty. Some SMEs have had to invest in generators or satellite connections, which further inflates the bill. Obstacles related to skills: managers struggle to recruit staff who master both management control techniques and digital tools. Continuing education is considered insufficient and often too costly for small structures. This results in a dependence on external consultants, which can weaken the sustainability of the systems in place. Cultural obstacles: beyond the "culture of opacity," the prevalence of interpersonal relationships plays a key role. Several managers state that they trust more "a figure they have under their eyes in an Excel file they built themselves" than a "report automatically generated by software that escapes them." Digitalization is perceived as a process that depersonalizes the relationship, which goes against the traditional management mode. The determinants of digitalization adoption are synthesized as follows:

Categories of determinants	Proportion of respondents	Illustrative Verbatim	Analysis
Favoring Factors			
Mobilized financial resources	57,1% (4/7)	« We were obliged to buy certain software and obtain licenses. » (PCIEF)	According to RBV, digitalization requires investment.
Human resources (skills)	42,9% (3/7)	« We either trained the trainers so they have the skills.» (PCIEF)	Training and recruitment of skills are essential for tool appropriation.
Manager's willingness	42,9% (3/7)	« My manager has been abroad. So he is quite open to new technologies.» (MATECH)	The manager's openness is a key factor.
Inhibiting Factors			
High cost of solutions	42,9% (3/7)	«To store data online, we are forced to always pay for internet access. » (WISECONSULTING)	Hidden costs are a major economic barrier.

Infrastructural constraints (electricity, internet)	28,6% (2/7)	«We can spend two to three hours each sitting at our desk. Sometimes the cost is enormous, because you will need a generator.» (WISECONSULTING)	Infrastructural deficits limit the ability to maintain performant digital systems.
Fear of control (cultural)	57,1% (4/7)	« They see that these tools are a danger for them, because it controls their activity rather than enhances it. » (PCIEF)	The culture of opacity is the most powerful obstacle.
Lack of technical skills	42,9% (3/7)	« We must train. We have to do information sessions, refresher sessions. » (MATECH SARL)	The skills deficit is a major obstacle, linked to low digital literacy.
Regulatory constraint (coercive isomorphism)	28,6% (2/7)	« The State forced us into digitalization, because they themselves got heavily involved in it. » (JN CONSEIL)	Coercive isomorphism (DiMaggio & Powell, 1983) acts as an external driver of adoption. Fiscal obligations force SMEs to digitalize.

Source: Our own work

V.3. Impacts: Performance Depends on Hybridization

The effect of digitalization on organizational performance is neither automatic nor uniform. In SMEs where appropriation has been successful – generally with support, adapted training, and manager involvement – gains are observed in terms of reactivity, cost control, and information quality. An exemplary case is an SME that internalized the use of a budget planning software: "We gained in reactivity. We can now run simulations to see the impact of a price increase or a drop in orders. We had never done that before."

On the other hand, in structures where resistance is strong and the tool was imposed without preparation, digitalization generates counterproductive effects: complexification of processes, demotivation of teams, bad-faith data entry. In these cases, the overall performance of the company is not improved, or even deteriorates. A manager testifies: "We bought the software, but nobody really uses it. In the end, we continue to do things the old way, and the software only serves to make reports for headquarters." This observation illustrates the risk of purely formal digitalization, which does not transform actual practices.

Thus, performance does not stem from technology itself, but from the appropriation by actors and the hybridization between digital tools and local practices. This hybridization, which combines technical resources (RBV) and actor perceptions (TAM), rests on a dual movement: adapting the tool to the specificities of the company, while evolving routines and representations through the use of the tool. It is the fruit of organizational learning where the tool and practices transform each other mutually, thus allowing for the reconciliation of technical efficiency and contextual relevance. This hybridization process generates lasting performance gains.

Categories of impacts	Proportion of respondents	Illustrative Verbatim	Analysis
Positive Impacts			
Time savings and operational efficiency	57,1% (4/7)	« These digital tools generally allow us to do it in a fairly quick time.» (PCIEF)	Automating repetitive tasks frees up time for higher value-added analysis (Gaga et al., 2025).

Reliability and quality of information	57,1% (4/7)	«The programming ensures that if employees struggle, there are significance quotas that the software puts in place.» (WISECONSULTING)	Digitalization reduces human errors and improves data reliability.
Improvement of internal communication	100% (7/7)	«Digital tools have strengthened communication within the company, by enabling [...] the availability of data.» (WISECONSULTING)	Digitalization facilitates information sharing and collaboration.
Increase in turnover	28,6% (2/7)	«The work we did in two weeks, we have the capacity today to do it in three hours maximum. » (PCIEF)	The ability to multiply tasks translates into an increase in activity volume.
Customer satisfaction	28,6% (2/7)	« With these digital tools, there is a capacity to reduce errors. »(PCIEF)	The reduction of errors and increased reliability improve perceived service quality.
Negative Impacts			
Additional costs (maintenance, storage, security)	42,9% (3/7)	« We always have to pay for access to increase storage capacities. » (WISE)	Hidden costs are often underestimated.
Cybercrime and security risks	28,6% (2/7)	« We always have to pay for access to increase storage capacities.» (PCIEF)	Digitalization exposes companies to new risks.
Formal digitalization without real transformation	14,3% (1/7)	« We bought the software, but nobody really uses it. In the end, we keep doing things the old way. » (EM SARL)	The lack of support and training leads to cosmetic digitalization.
Excessive dependence on systems	14,3% (1/7)	« There is total dependence on the system. » (EM SARL)	Dependence on tools can be a risk in case of technical failure.

Source: Our own work

VI. Discussion: Towards a Contextualized and Humanized Digitalization

Our results confirm that the digitalization of management control is a multidimensional transformation, whose success depends on factors far broader than technology alone. We discuss here four dimensions that appear essential to us.

The "culture of opacity" (Bello, 2021) appears as a major cultural determinant, which it would be naive to ignore. It opposes the logic of transparency inherent in digital tools. In such a context, imposing an integrated information system without prior work on representations and power relations is doomed to failure. This conclusion aligns with the work of Orlikowski (1992) on the duality of technology: the tool is both the product of human action and a mediator of that action. For it to be accepted, it must be co-constructed with users. This co-construction can take various forms: participatory workshops, pilot groups, cross-training, etc. The challenge is to enable users to appropriate the tool and not endure it as an external constraint. In the SMEs studied, the most successful cases are precisely those where the manager involved his teams in the choice and implementation of the software.

The analysis through resource-based theory (Barney, 1991) helps to understand why simply owning an ERP does not guarantee performance. The true strategic resource is not technology itself, but the company's ability to combine it with other intangible resources: trust, continuous training, an organizational culture favorable to learning, and engaged leadership. As the work on dynamic capabilities (Teece, 2007) emphasizes, sustainable performance depends on the company's ability to reconfigure its resources in response to changes. In SMEs where digitalization has failed, these intangible resources are often absent. Trust is low, training is non-existent, and leadership is not sufficiently involved. Conversely, the companies that have benefited from digitalization are those that have invested in developing skills and building a data culture.

The importance of perceptions, in line with the TAM model (Davis, 1989), shows that the acceptance of digitalization by actors is crucial. A tool perceived as useful and easy to use is more likely to be adopted. Our results add an important nuance: perceived usefulness is not limited to personal effectiveness; it also integrates the perception of impact on power and social relations within the company. Training that takes these symbolic dimensions into account, combined with explicit communication on shared benefits, can reduce resistance. Thus, rather than presenting digitalization as a technical injunction, it is preferable to present it as a lever for enhancing professions and improving working conditions. In certain SMEs, financial managers were involved in defining indicators and designing dashboards, which strengthened their sense of usefulness and their commitment.

VII. Conclusion

This research shows that the digitalization of management control in Cameroonian SMEs is a complex phenomenon, shaped by contrasting perceptions and determinants that are at once material, cognitive, and cultural. While it holds strong potential for improving organizational performance (time savings, reliability, decision support), success is not guaranteed in advance. It faces structural obstacles (costs, infrastructure) and, above all, cultural barriers, embodied by a "culture of opacity" that makes digital transparency a stake of power.

Performance does not arise from technology itself, but from the appropriation by actors, investment in skills, and successful hybridization between digital tools and local management practices. Thus, to be effective, the digitalization of management control in Cameroonian SMEs must be conceived as an organizational and human transformation project, and not as a simple technical migration. It requires support that takes into account perceptions, values the human element, and integrates the cultural specificities of the company's "living environment."

The results of our research allow us to identify several managerial implications for SME managers and public policymakers. 1. Consider digitalization as a transformation project, with a budget for support, training, and change management. 2. Invest in training and support to lift cultural barriers. 3. Adopt an incremental approach (simple tools, employee involvement, quick wins). 4. Public authorities must facilitate access to training and support digital infrastructure. 5. Evaluate continuously and adjust regularly; digitalization is an iterative process. Limitations and research perspectives. Our research presents several limitations that constitute as many perspectives for future work. Our study is confined to Douala (7 SMEs). A geographical extension and a

longitudinal approach would allow testing the generalizability of our conclusions. Future research could deepen the relationship between digital transformation and the evolution of power structures, as well as the effectiveness of different support mechanisms.

Ultimately, this research contributes to a better understanding of the success conditions for the digitalization of management control in an African context often neglected by mainstream literature. It highlights the importance of closely articulating technical, organizational, and cultural dimensions, and invites us to go beyond universalist approaches to adopt contextualized approaches.

REFERENCES

- [1] INS (2023). Rapport sur la situation économique du Cameroun. Yaoundé : Institut National de la Statistique.
- [2] MINPMEESA (2024). Annuaire statistique sur les PME au Cameroun. Yaoundé : Ministère des Petites et Moyennes Entreprises.
- [3] Chapellier, Profils de dirigeants et systèmes d'information comptable des PME : une approche comparative, *Revue internationale PME*, 10(3-4), 1997, 37-68.
- [4] Gaga, et al : L'évolution du métier de contrôleur de gestion à l'ère du digital : vers un profil de business Partner ?, *Revue Management & Innovation*, 12(1), 2025, 45-68.
- [5] Badre et al : Digitalisation de la fonction contrôle de gestion : menace ou opportunité pour les praticiens ?, *Revue Française de Gestion*, 50(315), 2024, 123-145.
- [6] Bello, Culture de l'opacité et modernisation gestionnaire en Afrique subsaharienne (Paris: L'Harmattan, 2021).
- [7] GIZ, Enquête sur la transformation numérique des PME au Cameroun (Yaoundé, 2023).
- [8] Anthony, Planning and Control Systems: A Framework for Analysis (Boston: Harvard Business School Press, 1965).
- [9] H. Bouquin, Le contrôle de gestion (Paris: Presses Universitaires de France, 2008).
- [10] Simond, Contrôle de gestion et pilotage de la performance (Paris: Éditions d'Organisation, 2003).
- [11] Löning, P. Besson and V. Malleret, Le contrôle de gestion : analyse et outils de pilotage (Paris: Dunod, 2013).
- [12] Parmentier, V. Mangematin and L. Nesta, La digitalisation des entreprises : une approche par les étapes, *Revue de l'Innovation*, 25(2) , 2020, 45-68.
- [13] Morin, A. Savoie and G. Beaudin, L'efficacité de l'organisation : théories, représentations et mesures [(Montréal: Gaëtan Morin Éditeur, 1994).
- [14] Penrose, The Theory of the Growth of the Firm (Oxford: Basil Blackwell, 1959).
- [15] Wernerfelt, A Resource-Based View of the Firm, *Strategic Management Journal*, 5(2), 1984, 171-180.
- [16] Barney, Firm Resources and Sustained Competitive Advantage, *Journal of Management*, 17(1), 1991, 99-120.
- [17] Peteraf, The Cornerstones of Competitive Advantage: A Resource-Based View, *Strategic Management Journal*, 14(3) ,1993, 179-191.

- [18] Teece, Explicating Dynamic Capabilities: The Nature and Microfoundations of (Sustainable) Enterprise Performance, *Strategic Management Journal*, 28(13), 2007, 1319-1350.
- [19] Laviolette, R. Redien-Collot and S. Tegtmeier, Digitalisation et PME : enjeux et perspectives, *Revue internationale PME*, 32(2), 2019, 7-14.
- [20] Wacheux, [Méthodes qualitatives et recherche en gestion (Paris: Economica, 1996).
- [21] Davis, Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology, *MIS Quarterly*, 13(3), 1989, 319-340.
- [22] Ajzen and M. Fishbein, *Understanding Attitudes and Predicting Social Behavior* (Englewood Cliffs: Prentice-Hall, 1980).
- [23] Venkatesh, M. G. Morris, G. B. Davis and F. D. Davis, User Acceptance of Information Technology: Toward a Unified View, *MIS Quarterly*, 27(3), 2003, 425-478.
- [24] DiMaggio and Powell, The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields, *American Sociological Review*, 48(2), 1983, 147-160.
- [25] Orlikowski, The Duality of Technology: Rethinking the Concept of Technology in Organizations, *Organization Science*, 3(3), 1992, 398-427.