



# The impact of new information and communication technologies (ICT) on the financial performance of construction companies: A case study of the Marrakech-Safi region

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## **Abstract:**

The article explores the impact of Information and Communication Technology (ICT) on the financial performance of SMEs in the construction sector in Morocco. It highlights the increasing importance of digitization in an economic context characterized by globalization. Through a quantitative approach based on a questionnaire survey of 200 SMEs, the study identifies the use of ICT tools in these companies and their financial performances. The results show a significant correlation between digitization, measured by the frequency of ICT tool usage, and financial performance, evaluated through indicators like equity, total assets, and net income. Factor analysis reveals two main factors: the traditional factor including office automation, budget planning, and Business Intelligence, and the modern factor comprising consolidation and ERP systems. This research contributes to a better understanding of the impact of ICT on SMEs in the construction sector, emphasizing the strategic importance of digitization for enhancing management and financial performance in this key sector of the Moroccan economy.

**Keywords:** ICT, SMEs, Financial performance.

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## 1. Introduction

Write In a global economy characterized by market openness, trade liberalization, and the advent of information technologies, companies must continually reassess their management practices and organizational models to enhance performance and remain competitive—a crucial condition for their long-term survival. New Information and Communication Technologies (NICTs) offer a broad range of tools to help achieve these objectives. This paper examines a study on the role of computerization in enhancing the financial performance of classified construction SMEs, with the aim of explaining how NICTs impact company results.

As early as the 1980s, Foster (1986) predicted that industries, including production and a significant portion of service sectors, would experience major technological transformations by the 2000s, driven by the increasing integration of computerization into economic and social life. To grasp the full extent of the digital transformation, it is essential to first understand the computerization of the economy, which, according to Volle (2015), serves as the foundation of both globalization and financialization. Volle (2015) emphasizes the link between the ubiquity of IT resources and the globalization of the economy. He argues that we should not dissociate the uses of computerization from its causes, as IT applications are designed and managed by companies that have invested heavily in IT programs and platforms, relying on business models to ensure returns on these substantial investments.

The Civil and Building Engineering sector is a key industry in Morocco, significantly contributing to the country's economy. In 2021, the sector contributed 12.2% to GDP in 2021, recovering notably from a 3.7% decline in 2020 caused by the COVID-19 pandemic. Moroccan construction and civil engineering companies face growing competition, tighter budgets, more complex projects, and stricter quality and safety standards. In this context, management control has become a critical function for construction companies in Morocco. IT tools play a crucial role in helping companies monitor and control their financial and operational performance, facilitating informed decision-making based on real-time data.

Increasingly, Moroccan construction companies are leveraging computerization to enhance their management processes. Modern IT systems provide real-time insights into company performance, enabling managers to make quicker and more efficient decisions. Given these developments, the topic of computerization in Moroccan construction companies is of paramount importance. This issue can be explored by analyzing the specific challenges Moroccan construction companies face in adopting NICTs, the potential benefits of computerization, and the best practices for implementing effective IT systems in this sector.

The management structures of companies must be responsive to their economic environment. According to new institutional theory, organizations tend to mimic successful models, often adopting a multi-sectoral approach. Regardless of the perspective, the role of functional services is crucial both organizationally and operationally. This leads us to our research question: **What is the impact of new information and communication technologies on the financial performance of classified construction companies?**

## 2. Theoretical framework

In the 1980s, Foster (1986) predicted a major technological upheaval, foreseeing that the production and service industries would undergo significant transformation in the 2000s due to the growing influence of computerization in economic and social life. Understanding the full scope of this digital transformation requires exploring the computerization of the economy, which Volle (2015) sees as a fundamental driver of globalization and financialization. This perspective raises the critical question of the relationship between the ubiquity of IT resources and economic globalization. It suggests that the

uses and consequences of computerization should not be dissociated from its causes. IT applications, designed and managed by companies making massive investments in software and IT platforms, are grounded in solid business models.

Computerization has profoundly reshaped production systems. It removed geographical barriers, enabling companies to relocate production to low-cost regions while maintaining real-time control over crucial information. This dynamic shift is redefining production and distribution strategies. At the same time, computerization has paved the way for financialization, providing banks with simultaneous access to global financial marketplaces, and allowing real-time transactions thanks to powerful algorithms.

As such, computerization can be considered a new industrial revolution, marking a significant transition in how industries operate and interact on a global scale.

## **2.1 Levels of digital transformation**

In his book *L'ère numérique, un nouvel âge de l'humanité*, Gilles Babinet, an entrepreneur and ardent advocate of digital technology, discusses the prospect of a digital revolution as a new stage in human evolution, following the agricultural, industrial, and service revolutions. To better understand this transition, Babinet divides the history of computerization into three key periods: the first from 1945 to 1985, marked by the advent of hardware; the second from 1985 to 2005, characterized by the development of software engineering; and the third from 2005 onwards, focusing on the evolution of data science.

At the core of this new digital revolution, Babinet identifies five fundamental transformations likely to reshape modern economies and social life. The first is the transformation of knowledge and the opportunities it creates, which broadens the scope of possibilities. Concurrently, education is undergoing a major shift with the rise of MOOCs and distance learning. Healthcare is also experiencing significant changes, particularly in diagnostics, thanks to new technological tools. Industrialization and production benefit from advances such as robots, FabLabs, and 3D printers. Finally, the role of the state is evolving with the advent of open data and e-democracy, which redefines interactions between citizens and institutions.

According to Riemer (2013), digital transformation is not confined to these areas but manifests itself across various levels. Professional practices are being disrupted, as evidenced by the shift from office-based work to remote work. Individual lifestyles are also changing, with mobile connectivity influencing social interactions. On the business side, the impact of social media is transforming the flow of information within organizations, leading to shifts in power dynamics. In terms of industrial structures, the digitization of media content and user-generated content is disrupting traditional production and delivery value chains. Lastly, societal systems are being transformed by the increasing role of social media in shaping public opinion and disrupting traditional practices. Thus, digital transformation is occurring at multiple levels, signaling profound changes in how we live, work, and interact.

## **2.2 Components of digital transformation**

In the context of digital transformation, Lemoine's (2014) report provides an in-depth analysis of the key components shaping this digital era. The first component, automation, emerges as a major driver of change, significantly improving the use of production factors. Productivity gains in labor, capital, energy, and raw materials underscore the substantial impact of automation on economic efficiency. Moreover, this shift toward increased automation fosters a growing individualization of supply, introducing more flexible and personalized business models.

Dematerialization, the second component identified by Lemoine, is bringing about profound transformations in the way information and goods are exchanged. Emerging communication and distribution channels are reshaping traditional structures, rendering obsolete models based on physical

networks such as agencies and stores. This revolution plays a crucial role in reducing marginal production and transaction costs, leading to a more efficient and accessible economy.

Finally, disintermediation/reintermediation, the third component highlighted by Lemoine, embodies the reconfiguration of value chains in the digital age. The emergence of new players between established companies and their customers is redefining economic dynamics, creating both opportunities and challenges. The increasing participation of individuals and the innovative use of data assets underscore the need to rethink business and intermediation models to remain competitive in this ever-evolving landscape.

Lemoine's vision offers a crucial roadmap for understanding the nuances of digital transformation, emphasizing the key elements shaping our new economic era and highlighting the strategic imperative for countries, like France, to capitalize on these trends to drive innovation and growth.

### **2.3 Effects of digital transformation on the economy: opportunities and challenges**

Digital transformation is significantly impacting the economy, presenting both opportunities for growth and challenges for development. Clarke (2003) identifies several key trends arising from digitalization. One notable shift is the transition from the production and distribution of physical goods to that of digital content, marking a move toward a more immaterial and virtual economy. Furthermore, digital transformation intensifies the role of knowledge in all sectors, including services, and promotes an economy increasingly driven by immaterial value. This also makes economic activities less resource-intensive, signaling more efficient resource utilization.

The digitization of the economy facilitates increased international flows of capital, technology, and skilled labor, creating a more interconnected global network. While this interconnectedness opens up new opportunities, it also underscores challenges such as the digital divide between nations. In the manufacturing sector, digitization enhances productivity, particularly in advanced economies, by reducing production costs. Companies' competitiveness is increasingly defined by the customer experience rather than just the physical product, transforming traditional competition dynamics.

From the perspectives of customer experience, operating models, and business models, digital transformation brings profound changes. Customer insights are enhanced by advanced analytics and the use of social network data. Sales growth is driven by digital sales channels and predictive marketing. Customer touchpoints are optimized, leading to improved service delivery and more consistent communication across channels. Digital transformation also enhances operational processes, empowering employees through flexible work arrangements and rapid communication, while making performance management more transparent and data-driven.

Organizations are transitioning from offering primarily physical products to augmenting their offerings with digital services, fundamentally reshaping their structure. Digital commerce is expanding through digital products, reinventing business models and broadening organizational horizons (Westerman et al., 2011).

According to Brynjolfsson and Hitt (1995), information technology has a significant and positive effect on business productivity. In their study *Information Technology and Organizational Design*, they demonstrate that companies with intensive IT usage experience higher productivity than those without. David (1990) also highlights the profound impact of computerization on productivity, transaction costs, industrial structure, and organizational forms. His book *The Dynamo and the Computer* explains how computerization has enabled process automation and cost reduction, as well as the emergence of new organizational models, such as corporate networks.

For Castells (1996), computerization is a global social phenomenon that reshapes all human activities and reconfigures relationships between individuals, organizations, and states. In his book *The Information Age: Economy, Society, and Culture*, he argues that knowledge and information have

become key resources in this new society. Similarly, Martin and Samuels (1988), in their work *The Impact of Information Technology on Management*, show how IT has enabled the creation of new collaborative work models and the dissemination of information across all organizational levels.

However, the effects of digitalization are not without challenges. Aron and Singh argue that while productivity gains are achieved, job destruction in certain sectors offsets these gains, creating ambiguity around employment effects. Additionally, information systems (IS) have evolved under the influence of advances in technology and recognition of the limitations of traditional accounting information systems. This evolution has prompted a shift toward integrating other types of data, made possible by advancements in data warehousing and extraction tools, and altering reporting practices, particularly with the adoption of EIS (Executive Information Systems) software.

Information systems have also impacted management control, as they now structure organizational processes and assume roles traditionally filled by controllers. Bironneau and Martin have studied the structural influence of ERP (Enterprise Resource Planning) systems, which standardize organizational operations. However, ERP implementations are often hindered by difficulties in integrating human factors. While workflow systems help monitor organizational processes, they can struggle to manage non-standardized interactions between stakeholders.

### **3. Theories used**

#### **3.1 Contingency Theory**

In the 1950s, the role of technology in shaping organizational structures gained growing recognition. Joan Woodward, a British sociologist (1916-1971), conducted an empirical study to explore what drives organizations to adapt their structures and which organizational types yield the best performance. Her work, published in 1965 under the title *Industrial Organization: Theory and Practice*, is one of the most significant contributions to the technological contingency theory.

Woodward's study, conducted between 1953 and 1957, involved analyzing around a hundred industrial companies located in southeast Essex, England, ranging in size from 100 to 4,000 employees. The study aimed to identify the organizational characteristics linked to company performance. The findings revealed that the technology employed by an organization significantly affects its structure, and certain organizational structures are more effective depending on the technology in use. Specifically, firms using mass production technologies performed better with a hierarchical structure, while those employing customized production methods thrived in decentralized, participative structures.

Technology, according to Woodward (1965), is regarded as an internal contingency variable, a view supported by Perrow (1970) and Pfeffer (1981). Technological changes can influence organizational structure in two ways: first, by affecting the formal structure, which impacts the division of labor and the relationships among activities resulting from this division; and second, by altering the informal structure, which modifies power dynamics and communication patterns within the organization.

#### **3.2 Neo-institutional Theory**

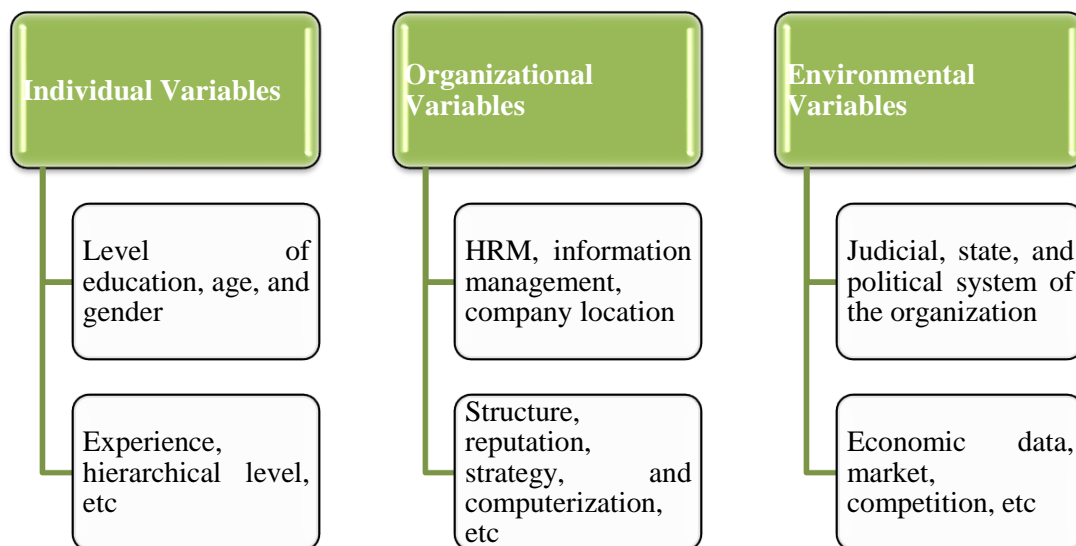
"Neo-institutionalism" is an evolution of institutional theory that began to take shape in the social sciences—particularly sociology, economics, and political science—in the 1940s. In sociology, the initial wave of this approach, referred to as "old" institutionalism, was pioneered by the works of Philip Selznick and other sociologists who studied bureaucracy. Selznick, in his seminal 1957 work, was among the first to draw a distinction between an organization and an institution. According to this remarkable sociologist, an organization becomes an institution when it promotes strong values, often rooted in the community and upheld by its leaders. Some organizations develop an identity that ensures their longevity, independent of their operational efficiency or financial performance, even if they are not consistently profitable. Early institutionalists argued that organizations should be viewed as social

structures interacting with their institutional environment, rather than merely as systems of rational coordination for achieving specific goals. They highlighted the significance of leadership, values, and informal social processes in shaping organizational dynamics.

Firstly, authors Bosch and Charest (2010), Crouch (2006), and Godard (2004) emphasize that institutions and their arrangements are closely linked to their social, political, and economic environment, which shapes and models them. Institutional arrangements thus reflect or respond to the constraints and opportunities created by the rules, norms, and beliefs of their environment (Godard, 2004; John, 2012; Thelen, 2004). Hollingsworth and Boyer (1997) emphasize that the social, political, and economic environment is crucial to understanding the emergence and development of institutional arrangements in a given context. Finally, Campbell (2004) notes that the environment helps define the visions, interests, and capacities of actors, limiting or facilitating their innovative solutions.

Secondly, according to Immergut (1998), institutions evolve over time through the development, adoption, diffusion, adaptation, and elimination of institutional arrangements in a given context. Neo-institutionalists seek to understand the causes and directions of institutional change in relation to the actors involved (Godard, 2004; Howlett et al., 2009; John, 2012; Streeck, 2011; Thelen, 2004). Consequently, the process of institutional development is political, and the rules, norms, and beliefs that determine the development of institutional relationships are not neutral.

Thirdly, actors pursue their own visions and interests according to the capacities they have in a given environment as part of the institutional development process (Campbell, 2004). According to neo-institutionalist authors, institutions do not simply impose a rigid and restrictive framework, but also imply will (Howlett et al., 2009; John, 2012; Thelen, 2010). DiMaggio and Powell (1983) defined isomorphism as the process by which organizations adapt to environmental pressures. The environmental pressures that induce organizations to adopt similar behaviors are coercive pressure, mimetic pressure, and normative pressure, according to these authors. According to the literature, there are three levels of neo-institutional variables, based on the model established by Scott (2001): the individual, the organization, and the environment, as shown in the following figure.



**Figure 1.** Neo-institutional variables

#### 4. Data and methodology



#### **4.1 The managed positivism paradigm and research approach**

Our research falls within the paradigm of "managed positivism," as described by Miles and Huberman (1991, p. 31), which represents a continuum between positivism and interpretivism. This paradigm has been used by several authors, including Charreire and Huault (2001), Cappelletti (2005), Colle (2006), and Demaria (2008). The modified positivist paradigm challenges the traditional positivist approach, which posits that scientific knowledge is a prerequisite for developing new knowledge.

#### **4.2 Mode of reasoning and research approach**

The quantitative approach is a research strategy aimed at discovering and quantifying relationships between several objects, as described by Grawitz (1993). It is characterized by the enumeration of a large number of cases and units, as well as the countability and frequency of the phenomena to be studied or described, with the ultimate aim of capturing objective knowledge, as emphasized by Bergadaà and Nyeck (1992). This method requires statistical measurements and tests to establish the significance of the relationship under study.

#### **4.3 Questionnaire collection and SPSS analysis**

We have chosen to use a questionnaire survey in our study, as this method seems to be the most suitable for answering our research question. This method of data collection is commonly used in the field of management control. According to Baumard et al. (2003), a questionnaire is a tool used to question individuals directly, using a qualitative approach to define the response modalities through so-called closed-ended questions.

IBM® SPSS® Statistics (version 26) is the leading statistical software used worldwide to solve business and research problems through ad hoc analysis, hypothesis testing, and predictive analysis. Organizations use IBM SPSS Statistics to understand data, analyze trends, forecast, plan, and validate hypotheses, and draw accurate conclusions. Hypothesis testing in research involves testing theoretical or methodological concepts against reality, with the aim of producing an explanation. This process involves a series of operations carried out by the researcher to assess the relevance of a hypothesis, model, or theory, aiming to explain observed reality while maintaining neutrality and objectivity. As part of our research, we recognized the need for a theoretical framework, which led us to bring an original perspective to our understanding of New Information and Communication Technologies (NICT) and financial performance.

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research question, and this method of data collection is commonly used in the field of management control (Baumard et al., 2003).

## 5. Results

### 5.1 Descriptive Analysis

**Table 1:** Monograph of Surveyed Companies

Variables	Categories	Frequencies	Percentages
Headquarters	Prefecture of Marrakech	153	68.3%
	Province of Essaouira	41	3.3%
	Province of Chichaoua	2	3.3%
	Province of Safi	2	8.3%
	Province of Youssoufia	5	8.3%
	Province of Rehamna	5	8.3%
Ownership Structure	Non-family businesses	46	76.7%
	Family businesses	14	23.3%
Legal Form	Limited Liability Company (LLC)	37	61.7%
	Single-member Limited Liability Company (SMLLC)	23	38.3%
Class	Class 2	4	6.7%
	Class 3	10	16.7%
	Class 4	37	61.7%
	Class 5	9	15%
Age	Less than 5 years	28	46.7%
	5 to 10 years	9	15%
	10 to 15 years	15	25%
	15 to 20 years	6	10%
	20 years and more	2	3.3%
Main Activity	Building construction	33	55%
	Road works	13	21.7%
	Other	10	16.7%
	Building construction, Other	1	1.7%
	Building construction, Road works	3	5%



The prefecture of Marrakech is the primary location for companies, representing 68.3% of the total, while the remaining companies are distributed across various provinces. Most companies are non-family businesses (76.7%), with a predominance of the Limited Liability Company (LLC) legal form (61.7%). Regarding company classification, the majority fall into class 4 (61.7%). The age distribution shows that nearly half of the companies are less than 5 years old (46.7%). Lastly, in terms of main activities, building construction is the most prevalent (55%), followed by roadworks (21.7%). This table provides a comprehensive overview of the surveyed companies, offering key insights into the economic landscape of the region under study.

**Table 2:** Characteristics of Surveyed Managers

Variables	Categories	Frequencies	Percentages
Status of Managers	Owner	40	66.7%
	Co-owner	19	31.7%
	Partner	1	1.7%
Age of Manager	20 to 30 years	1	1.7%
	30 to 40 years	27	45.0%
	40 to 60 years	15	25%
	Over 60 years	17	28.3%
Level of Education	No diploma	22	36.7%
	High school diploma (Baccalaureate)	6	10%
	Two-year college degree	15	25%
	Three-year university degree	7	11.7%
	Master's degree or higher	10	16.7%
Type of Education	No specific training	23	38.3%
	In a discipline other than management	29	48.3%
Manager's Experience	Management sciences	8	13.3%
	Less than 5 years	2	3.3%
	5 to 10 years	7	11.7%
	10 to 15 years	22	36.7%
	15 to 20 years	10	16.7%
	20 years and more	19	31.7%

The table provides a summary of the characteristics of the company directors included in the study. The majority of managers are business owners, representing 66.7% of the sample, followed by co-owners at 31.7%. Regarding the age of the managers, the distribution is fairly diverse, with a notable concentration in the 40 to 60 and over 60 age groups. In terms of education, most managers hold at least a Bac+2 level, and a significant proportion have completed training in fields other than management. Regarding professional experience, a significant number of managers have between 10 to 15 years or 20+ years of experience, highlighting their extensive expertise and knowledge in the field. This analysis offers valuable insights into the profile of the leaders of the companies in the study, providing an in-depth understanding of the composition and dynamics of leadership in the given context.

## 5.2 Factor Analysis

Computerization was assessed using a five-item scale related to the frequency of IT tool usage. The results of the analysis indicated that the data were suitable for factorization, with a Kaiser-Meyer-Olkin (KMO) value of 0.62 and a significant Bartlett's test of sphericity ( $p=0.000$ ), confirming the overall validity of the analysis for this variable.

Exploratory factor analysis (EFA) of the computerization measurement scale confirmed convergent validity, with all factor loadings significantly greater than 0.5. The results generated two factors: the "classic factor," which comprised three items (frequency of use of office automation, budget planning, and business intelligence/decision-making/reporting tools), explaining 47.629% of the total variance, and the "modern factor," which grouped two items (frequency of use of consolidation tools and ERP systems), explaining 23.458% of the total variance. As shown in the table below, the communalities indicated some convergence, although this convergence remained relatively low.

Performance indicators, including shareholders' equity, total assets, and net income for the year, were also examined. The results of the factor analysis were significant, with a KMO index of 0.582 and a significant Bartlett's test of sphericity ( $p=0.000$ ), indicating the overall validity of this analysis. This KMO value justifies the applicability of the factor solution for our case. Thus, the factor analysis resulted in the retention of the three original items, which were presented as a single factor with a total explained variance of 75.627%. All factor loadings were above 0.6.

## 5.3 Correlation Analysis

**Table 3:** Correlation Analysis between ERP Usage and Financial Performance

Test	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	22.400a	12	0.033
Likelihood Ratio	15.308	12	0.225
Linear-by-Linear Association	0.055	1	0.815
N of Valid Observations	200		
Symmetric Measures			
Nominal by Nominal	Phi	0.335	0.033
	Cramer's V	0.193	0.033
N of Valid Observations	200		

Note: a. 15 cells (75.0%) have an expected count less than 5. The minimum expected count is 0.05.

The correlation analysis between ERP use and financial performance reveals significant results. Chi-square tests indicate a meaningful correlation at the 95% confidence level, although the specific linear association test remains inconclusive. Symmetric measures further confirm this correlation, with Cramer's Phi and V values indicating a significant association between the two variables. In conclusion, this study suggests that ERP use is linked to corporate financial performance, which could have important implications for resource management and information systems in organizations.

**Table 4:** Correlation analysis between the frequency of use of business intelligence / decision-making / reporting tools and financial performance

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	36.146a	16	0.003
Likelihood Ratio	37.521	16	0.002
Linear-by-Linear Association	10.704	1	0.001
Valid Observations	200		
a. 16 cells (64.0%) have an expected count less than 5. The minimum expected count is 0.36.			
Symmetric Measures			
Nominal by Nominal	Phi	0.425	0.003
	Cramer's V	0.213	0.003
Valid Observations	200		

The analysis reveals a significant correlation between the frequency of use of Business Intelligence tools and financial performance, supported by consistent statistical tests ( $p < 0.005$ ). These results underscore the strategic importance of data analysis for informed decision-making, suggesting that companies that actively utilize these tools tend to achieve better financial performance. Therefore, investing in BI technologies and encouraging their regular use can be an effective strategy for enhancing operational management and driving financial growth.

**Table 5:** Correlation analysis between the frequency of use of budget planning tools and financial performance

	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	40.062a	16	0.001
Likelihood Ratio	36.446	16	0.003
Linear-by-Linear Association	16.551	1	0.000
N of Valid Observations	200		
a. 15 cells (60.0%) have an expected frequency less than 5. The minimum expected frequency is 0.32.			
Symmetrical Measures			
Nominal by Nominal	Phi	0.448	0.001
	Cramer's V	0.224	0.001
N of Valid Observations	200		

Analysis of the correlation between the frequency of use of budget planning tools and financial performance reveals significant results. Chi-square tests indicate a statistically significant correlation between the frequency of use of these tools and financial performance, with p-values less than 0.005 for Pearson's Chi-square, the likelihood ratio, and the linear-by-linear association. Additionally, symmetrical measures such as Cramer's Phi and V further confirm this correlation, also presenting significant p-values below 0.005. These results indicate a positive relationship between the regular use of budget planning tools and the financial health of the companies studied, underscoring the strategic importance of financial planning in effectively managing resources and achieving financial objectives.

**Table 6:** Correlation analysis between the frequency of use of consolidation tools and financial performance

Tatistic	Value	df	Asymptotic Significance (Two-tailed)
Pearson Chi-Square	49.326a	16	0.000
Likelihood Ratio	49.833	16	0.000
Linear-by-Linear Association	2.180	1	0.140
Valid Observations	200		
Symmetrical Measures			
Nominal by Nominal	Phi	0.497	0.000
	Cramer's V	0.248	0.000
Valid Observations	200		
a. 17 cells (68.0%) have an expected count less than 5. The minimum expected count is 0.36.			

Correlation analysis between the frequency of use of consolidation tools and financial performance reveals significant results. Chi-square tests indicate a statistically significant correlation between the frequency of use of these tools and financial performance, with p-values < 0.001 for both Pearson's Chi-square and the likelihood ratio. However, the linear-by-linear association test showed no significant correlation, with a p-value of 0.140. Symmetrical measures, such as Cramer's Phi and V, confirm a significant correlation, with p-values < 0.001. These results suggest a positive relationship between the use of consolidation tools and the financial health of companies, highlighting the importance of these tools in the consolidation of financial data for effective performance management and financial reporting.

**Table 7:** Correlation analysis between the frequency of use of office tools and financial performance

Value	Df	Asymptotic Significance (Two-tailed)
Pearson's Chi-square	44.993a	16
Likelihood Ratio	40.469	16
Linear-by-Linear Association	15.106	1
N of Valid Observations	200	
Note: 15 cells (60.0%) have an expected count less than 5. The minimum expected count is 0.32.		
Symmetrical Measures		
Nominal by Nominal	Phi	0.474
	Cramer's V	0.237

Analysis of the correlation between the frequency of use of office automation tools and financial performance reveals significant results. Chi-square tests demonstrate a statistically significant correlation between the frequency of use of these tools and financial performance, with p-values of less than 0.001 for both Pearson's Chi-square and the likelihood ratio. Additionally, the linear-by-linear association test confirmed a significant correlation, also with a p-value less than 0.001. Symmetrical measures, such as Phi and Cramer's V, support these findings, with p-values below 0.001. These results suggest a positive relationship between the use of office automation tools and the financial health of companies, highlighting the importance of these tools in the daily management of activities and operational processes, which can contribute to improved overall company performance.

## **6. Conclusion**

This study provides compelling evidence of the significant correlation between the use of various management tools—such as ERP systems, Business Intelligence applications, budget planning tools, consolidation software, and office automation systems—and corporate financial performance. The analyses consistently reveal that organizations leveraging these tools not only enhance their operational efficiencies but also achieve superior financial outcomes. The findings highlight the strategic imperative for companies to adopt these management tools as integral components of their daily operations. In an increasingly competitive landscape, organizations that actively utilize these technologies can make informed decisions, streamline processes, and optimize resource allocation. This proactive approach positions them to navigate the complexities of a dynamic market environment more effectively.

As firms continue to face rapid technological advancements and evolving market demands, the integration of these management tools into their strategic frameworks becomes crucial. This integration not only supports immediate operational goals but also contributes to long-term sustainability and growth. Ultimately, organizations that embrace these technologies and embed them into their strategic vision are better equipped to adapt to emerging challenges and capitalize on new opportunities. The insights derived from this research provide valuable implications for both practitioners and scholars. For practitioners, the results advocate for a focused investment in management tools to drive financial performance. For researchers, this study opens avenues for further exploration into the nuanced dynamics between technology adoption and business outcomes, paving the way for more comprehensive studies in this area.

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