

Information technologies adoption in SMEs of Souss-Massa region: A qualitative study

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Abstract

This article seeks to explore the main factors influencing the adoption of information systems technologies (ISTs) in Moroccan SMEs. To do this, we mobilize a qualitative study based on semi-structured interviews with decision-makers of SMEs in the Souss-Massa region; and the content of these interviews is analyzed using "Nvivo11" software. The results confirm that in addition to perceptions of the usefulness of ISTs, their reduced cost, and despite the pressure on the stakeholder's SME to adopt them, the computerization of this entity is explained in the Souss-Massa region by government incentives and the decision-maker's intention. Because it is in the presence of a willingness on the part of the SME's decision-makers to equip this entity with ISTs that it becomes computerized under the pressure of these stakeholders and as long as the actors who operate there are in favor of the use of these technologies.

Keywords: Information System Technologies, Small and Medium sized enterprises, ISTs adoption, qualitative study, Souss-Massa region.

INTRODUCTION

The adoption of ISTs is a topical issue in Morocco. It emerged around the discussions and questions that followed the implementation and evaluation of national digital strategies. The major challenge is to position Morocco with the emerging and dynamic countries in the use of ISTs. Also, to establish an information society that contributes to human development and economic growth.

Nevertheless, despite the efforts made to succeed with these strategies, the share of ISTs in national GDP¹ is still limited. Moreover, several national and foreign reports have highlighted Morocco's delay in getting into the digital movement. This was emphasized, for example, in the report of the Court of Accounts² in 2014, which drew attention to the delay in achieving the objectives subscribed by the State in digital matters. Indeed, between 2013 and 2017, Morocco lost four places on the global ICT adoption index and still ranks behind ten Arab countries, according to the international telecommunications union (ITU)³.

This delay is all the more important when it comes to Moroccan SMEs. Wanting to support their economic importance and face their difficulties, the Moroccan Numeric Plan (PMN) granted them a special focus under the name "Productivity of SMEs" without achieving the expected results. These entities continue to have a low adoption rate of ISTs, and these are lagging far behind some other emerging countries. In addition, the computerization programs benefiting Moroccan SMEs under the aegis of PMN suffer from a significant regional disparity. At a time when SMEs in the "Casablanca" and "Rabat Salé" regions monopolize 70% of aide provided by the "Moussanada TI" program, other regions, such as the case of Souss-Massa, benefit only a small portion.

Even more, the under-computerization of Moroccan SMEs persists with the lack of academic research, which can provide concrete answers to certain issues related to this phenomenon. With the exploration of the SCOPUS database, which has more than 25 000 digital scientific journals, only four studies out of forty-two focus on the factors of adoption of ISTs by Moroccan SMEs. In relation to these four studies, none did not address the case of the Souss-Massa region.

¹ Gross domestic product.

² <http://www.courdescomptes.ma/en>.

³ Measuring the Information Society Report (International Telecommunication Union, 2016).

Therefore, starting from the limits of the PMN, and with the absence of studies on SMEs computerization in Souss-Massa, this research proposes to answer the following problematic question:

What are the determining factors of ISTs adoption by the decision-makers of SMEs in Souss-Massa region?

To answer this question, we adopted the exploratory qualitative method based on semi-structured interviews. This is how the development of this research will focus on four points. The first presents the literature review and main theories of ISTs adoption. The second point describes the approach adopted to collect and process qualitative data. The third presents the results of the study, gives an account of the main comments made by the people questioned, and provides a summary of variables after their classification by category of influence. The fourth point discusses these results in the light of those found in the literature. In conclusion, we propose the main contributions and limitations of the research.

1. LITERATURE REVIEW

To frame this research, we conducted a literature review composed of the main theories that constitute the academic frame of reference for ISTs adoption and which present multidimensional perspectives.

For behavioral theories (theory of reasoned action (Fishbein and Ajzen, 1975) theory of planned behavior (Ajzen, 1985), theory of interpersonal behaviors (Triandis, 1971), social cognitive theory (Bandura, 1986)), the attitudes and subjective norms are two main determinants of human intention. For the theories of the diffusion of innovations (Rogers, 2003), the adoption of ISTs depends mainly on their relative advantage, their complexity, their compatibility, their testability and observability. The TOE⁴ theoretical framework (Tornatzky and Fleischer, 1990) focused on organizational determinants such as the structure, size, and industry of the company. So for institutional theory (DiMaggio and Powell, 1983), the SME's computerization is confronted with mimetic, coercive and normative pressures.

⁴ Technology-Organization-Environment

The analysis of these theories provided us with the first observation on the differentiation of the factors, which intervene in the process of adoption of IST. To this end, the computerization of the SME may depend on the existence of the intention to adopt IST, which is determined by four groups of factors. As the theory predicts, the SME decision maker adopts IST under the influence of individual, organizational, technological, or environmental factors.

However, there are factors that influence this decision more than others and which also benefit from more support in terms of the results of empirical studies (Trinugroho et al., 2021; Hervas-Oliver et al., 2021; Kumar et al., 2020; Alshamaila et al., 2013; Alshawi et al., 2011; El-Gohary, 2012; Khalifa and Davison, 2006; Newby et al., 2014; Quaddus and Hofmeyer, 2007; Rahayu and Day, 2015; Ramayah et al., 2016; Ramdani et al., 2009). These include, for example, the attitudes and knowledge of the decision-maker as individual factors; social influence and the conditions that facilitate this adoption as organizational factors; relative advantages, complexity and reduced cost as technological factors and competition, pressure from partners and government support as environmental factors.

To explore the contextual factors of this IST adoption phenomenon in Morocco, we conduct an empirical analysis, in this case with SMEs in the Souss Massa region. This is a qualitative study based on semi-structured interviews and an interview guide; conducted with decision-makers to identify the main drivers of IST adoption.

2. METHODOLOGY

The methodology of this study integrates the technique of semi-structured interviews and thematic content analysis. Using an interview guide, we will lead the discussions with the interviewees, focusing on our needs for contextualized information.

Direct observation and conducting individualized (or group) interviews are two main techniques for collecting qualitative data (Evrard et al., 2003). These are based on a system of actor/subject interaction, with the aim of interpreting and constructing lived reality. Interviews can be directive, semi-directive, or non-directive. Our choice to involve the semi-directive method responds to academic preferences (Romelaer, 2005) and allows discussions to be framed according to the specificities of SMEs.

The interview guide used by this research consists of a set of open, lead, and follow-up questions. These questions revolve around three themes:

- The first deals with two preliminary points. The first concerns the socio-demographic information of the respondents and the companies surveyed. The second concerns information on technologies previously adopted or those that raise the intention of future adoption;
- The second deals with the main research information. These relate to the various elements that can act (positively or negatively) on the decision to adopt IST.
- The third, distinguishes the obstacles and benefits of adopting IST. It also discusses any other complementary and useful information to explore.

After developing the interview guide, we set up an analysis base made up of around twenty SMEs from the Souss-Massa region. Based on these selected companies, ten decision-makers confirmed their availability for effective participation in the study. Respecting their concerns, seven agreed to record the interviews using the tape recorder, three preferred note-taking for personal reasons. The language used for data collection is Arabic or French depending on what the authors say. The collected data is then, transcribed into a Word document, and with the use of the "Google Translate" tool, they are translated into English and analyzed by the "Nvivo 11" software.

3. RESULTS

3.1. Descriptive analysis

For this study, the sample explored consists of ten decision-makers of adoption of ISTs in SMEs. Seven of these people are men and aged between 35 and 55 years. 60% from the services sector, 20% of the industry, and 20% of the primary sector. Regarding the nature of technologies adopted, all respondents confirmed the use of basic technologies (computer and its components), telecommunication, and digital technologies (fixed and mobile telephony, fax, e-mail, and websites). 60% of respondents reported the use of specific management technologies (mainly accounting, social management, and business management software). 30% indicate their intention to adopt more advanced technologies (such as ERP, e-commerce, and cloud). During the interview process, we asked the participants are about the national computerization programs for SMEs "Moussanada TI and Rawaj IT". The majority of these participants ignore their importance.

This ignorance may be, mainly related to the lack of information on such State programs or the restrictive conditions to benefit from them.

This first table shows the characteristics of the sample studied. It presents the coding of the study participants according to the activity carried out and their level of training.

Table 1 : Characteristics of SMEs and decision-makers

Participant code	Activity	Training
P1	Fertilizer products	Bac + 4 (technical)
P2	Goods and services	Bac + 2 (scientific)
P3	Trade of goods	Bac + 4 (Scientific)
P4	Wood industry	Bac + 4 (technical)
P5	Food industry	Bac +6 (agronomist)
P6	Hôtel	Bac + 5 (Management)
P7	Travel agency	Bac + 4 (Letter)
P8	Fruit and vegetable production	Bac + 2 (technical)
P9	Services and trade	Bac + 2 (technical)
P10	Maritime fishing	Without Bac

Source: Author

Therefore, the analysis of data collected with software "Nvivo.11" is divided to three parts. First, present the main factors that marked the discussions about the research themes. We present some examples of salient quotes from participants' study. Second, present the benefits and obstacles of ISTs adopting, as explained by these participants. Third, present a summary table of ISTs adoption factors by SME in Souss-Massa region.

3.2. Thematic analysis

After an effort of translating, writing and summarizing the data, we subtract the most relevant information on the factors driving ISTs adoption. These factors are categorized into four themes.

The first one includes factors related to the psychological and personal characteristics of the individuals interviewed, the second includes factors relating to the organization; the third presents the factors that describe the technological characteristics and the fourth presents the factors relating to the influence of the external environment of SMEs.

3.2.1. Individual factors

After analyzing the interviews, we identified a set of items that can be categorized as individual and demographic factors. In answer to the first question: *“What do you think about the adoption of ISTs?”* the majority of respondents expressed their favorable intentions, attitudes and feelings of affection and joy. Their assessment of the adoption of new ISTs is generally positive. For some people, the adoption of ISTs is obvious, important and mandatory. For others, adoption of ISTs is a source of risk and anxiety. Here are some selected quotes from participants:

“Of course, today ISTs are important and essential for any company...” (P1);

“The adoption of technologies is nowadays an obvious thing [...]; the world is changing; these technologies are shaping the future of every business.” (P3);

“Despite their importance, these technologies are sometimes a waste of time. Staff uses the Internet for other reasons than work...” (P4);

“Technologies are essential for our company, their use is essential to better organizers” (P5);

“The adoption of IST is very useful for our company, especially the digital technology that makes work easier for enterprise members” (P6);

“I’m worried about losing every moment the relevant data of the company” (P9);

“Today, I don’t think working properly without using these technologies. In the coming years, no company will survive without sophisticated ISTs. I’m not talking about computers, but technologies that can make a difference” (P10).

The second question discussed with the interviewees is: *“What are the main individual and psychological factors that can influence the choice to adopt or reject new technologies?”*. The results have generated some items that can class as personal characteristics of the decision-maker or employees-users of ISTs. Among the most frequently cited points, we distinguish : Skills,

computer knowledge, user involvement, innovative mind of the decision-maker, creativity, confidence, trust and mentality of the decision-maker. Here are some of the most salient quotes:

“Many employees of this company don’t have sufficient skills in ISTs, except those who work in the IS department. Our staff does not effectively use technology... There is a need to train employees to be more familiar with using the computer and its basic tools” (P5);

“The owner attitudes will represent 50% of successful ISTs adoption” (P1);

“The decision-maker innovative spirit creates a positive work climate. Our owner is already an ambitious person and has an open mind to new solutions management” (P1);

“The decision-maker of the company must be creative to improve its profits. Creativity in our tourism sector is necessary to be a developer” (P7) ;

“Our users of ISTs have shown a good command of the computer tool; it is an essential thing, without which one cannot advance in the work” (P8).

In addition, the responses highlighted the demographic factors that may lead SME to adopt ISTs. This is the gender, age, language and professional experience of the decision-makers and users. Below, some examples of interviewees’ citations:

“My experience in this field allows me to better understand our IT needs” (P5);

“Older people are less enthusiastic about the new ISTs. They often represent resistance for change...” (P2);

“Age plays an important role. Young adapt more easily to new management methods” (P10).

Regarding the intention of adopting new TSIs, all respondents confirmed their positive opinion. According to these people, the computerization of SMEs can be achieved if the intention of the decision-makers is favorable, whereas the latter depends on the conditions offered by the market, by the public and financial institutions, as well as on the infrastructure and the sufficient resources for the adoption of ISTs. The participant (P9) confirmed that *“any idea that will help the company to develop is welcome...”*. For the participant (P2), *“If the conditions are favorable, we will soon adopt a new financial and an integrated system of management and business”*. In addition, the participant (P6) was confirmed, *“We are trying to build our own website to offer and sell our product online”*.

3.2.2. Organizational factors

In the context of organizational factors, participants provided some predictive factors in relation to the question: *“for you, what are the organizational features that can influence the adoption of the new ISTs?”*. The answers selected to highlight a set of items that focus on the following indicators: the size of the company, business sector, number of users and tasks, financial and human resources, owner/manager influence, culture and social affiliation, continuous training, assistance from technology providers and Internet connectivity. Among the most important quotes, we present:

“Continuing training is essential to update the knowledge and skills of users (recycling)” (P1);

“The high number of employees means more specification per department, which makes it mandatory to implement more integrated ISTs” (P2);

“Technology providers don’t offer sufficient training and updates for the development of their applications” (P3);

“The decision of the owner is a carrier” (P5);

“The use of ISTs is a prestige and social belonging” (P5);

“The size of the enterprise is related to the number of tasks processed and number of ISTs users” (P1);

“The problems related to the Internet affect the image of our company [...]. The lack of connection has a negative impact on the quality of our services; we cannot send e-mails or access information online” (P7).

3.2.3. Technological factors

During the interviews, we advanced the question: *“What do you think about the characteristics of ISTs that your company can be adopted?”*. Many factors have been suggested and that can be classified as technological factors. For the interviewees, the use of ISTs must lead to quality decisions that make to participate in establishing a more attractive organizational structure. The main indicators from these interviews are time-saving, corporate image, data security, improved results, ease of use, data accessibility, quality of decision-making, job compatibility, reasonable acquisition cost, turnover/cost ratio, high cost of maintenance, and confidentiality of data. Among the quotes from the participants in the context of these technological factors, we note:

“Data privacy and informational trust are two key conditions for using the website” (P1);

“We must set up an information system that is adequate to our needs” (P2);

“I will choose an information system that saves me time and provides me with reliable information for good decision-making” (P3);

“We opted for the software «Saari Sage», because it is easy to use and adapted to our needs” (P4);

“Investment in new information technology depends on the ratio of turnover/cost. Data security is a priority; we must use technologies that allow us to permanently backup important data” (P5);

“Easy, uncomplicated data access is a prerequisite for adopting new technologies” (P10).

3.2.4. Environmental factors

In relation to the question: *“For you, how does the company’s external environment influence ISTs adoption?”*, the interviewees provided a number of elements that could be classified as environmental factors. The external influence on the companies surveyed comes mainly from their need to expand, to have quality certificates (ISO), to cope with competitive pressures, to build customer loyalty, to contact the best suppliers, to explore external markets, and to manage the business administration relationship. In addition, participants reported the virtual absence of state support. Here are some examples of these declarations:

“Our majority suppliers require the use of the Internet services. The consultation and the realization of the transactions are increasingly accessed and carried via the electronic mail and the websites” (P 1);

“Our customers are diverse. These are farmers, retailers and packing stations. Thus, we are forced to choose the technological tools that adapt to the nature of the client” (P 1);

“To conquer other markets, you have to adopt more sophisticated technologies” (P3);

“Today, ISTs are no longer fashionable. Companies cannot resist without having competitive technologies. Digital technologies are used for advertising (showcase sites) and will help companies to satisfy their customers” (P5);

“Since January 2017, the government requires us to adopt specific digital technologies to be able to declare the taxes and annual financial situation Internet (online declaration of taxes and accounting operations)” (P7);

” State policies are not encouraging. The government must introduce policies that will help the development of SMEs in the country. SMEs, like ours, need some level of financial relief from banks. Currently, the rules applied by many of these banks are rigid” (P8) ;

“The program «Moussanada IT» would interest me, so any software that allows me to be successful in new business” (P9).

3.3. Benefits and constraints of adopting ISTs

After discussing these main themes, we directed the interview to more general questions: *Can you describe the benefits and constraints related to the adoption of these technologies in your company? And what solutions do you propose?*

These questions make a distinction between the elements that promote the adoption of TSI and those that reject it.

3.3.1. Benefits of adopting ISTs

The participant (P1) listed a set of benefits expected from the adoption of ISTs. For him, *«these technologies must facilitate the work, make operations faster, and improve forecasts. We need technologies to analyze the data and to edit the information quickly»*. This participant added: *«All companies are looking for technologies that improve their business management and raise their turnover levels»*. The participant (P4) highlighted some benefits of using the integrated technology ERP by stipulating: *«the use of the integrated software provide many benefits. They allow us to work easily, to manage the business, to plan more accurately, to build customer loyalty and to penetrate other markets»*. The participant (P5) relates the use of ISTs to the progress of the business. This relationship is explained by improvement in turnover, competitiveness, and quality work. For the participant (P6), *“the adoption of ISTs improves our business operations. It also allows us to connect easily to markets without great price”*. The participant (P7) added: *«The adoption of innovative technologies provide satisfaction and improve the image of the company”*. For the participant (P9), *“The website should provide easy access to international markets, to establish a customer database and improve the quality of business information”*; and for the participant (P10): *“Using the Internet facilitates communication with customers and allows trading in products and services online”*.

3.3.2. Constraints of adopting ISTs

To explore the obstacles of such ISTs adoption, we proposed, among other questions: *Can you describe the constraints associated with the adopting of these ISTs in your company?* Some participants pointed out: the high cost of ISTs, limited financial resources, weak network Internet, lack of government support, fierce competition, and resistance of some employees. For the participant (P8), *“The main difficulties of ISTs adoption are in their acquisition cost, staff training and monitoring of reparations”*. The participant (P3) cited, among the factors that affect the adoption of IST, lack of skills and resistance to change. For him, *“the lack of skills reduces the utility of investing in new projects. If employees don’t have computer skills, we need to train them, which incur additional costs. However, some technical service employees don’t like the change ...; they aren’t ready to learn”*. The participant (P6) considers the low Internet connectedness as the main obstacle of his tourist activity. The participant (P10) considers four groups of obstacles to the adoption of ISTs in his company. These are the modest government support, the lack of computer security, the inadequate technological infrastructure, and the lack of funds to carry out investments in ISTs. The participant (P5) added: *“The problem is rather financial, because SMEs do not have enough money. The cost of operation, production, and training of staff is high. Banks must facilitate access to financing. If the government intervenes enough, we will be happy to adopt more ISTs”*.

To limit these barriers, the interviewees propose a series of solutions. The participant (P7) proposes to invest in the user’s training and consultation of the specialists in ISTs. The others insist mainly on the development of human capital, improvement of infrastructure, governmental support, choice of the available material, choice of the potential suppliers, consideration of the cost/benefit ratio (human, financial), and optimization of resources (P2, P3, P6).

4. DISCUSSIONS

All respondents demonstrated the importance of the use of IST in their companies. The evaluation carried out is practically positive with regard to ISTs (more particularly: management software, websites, e-mail and mobile telephony). Adopting these TSIs requires a certain level of skill and technical knowledge. Those with sufficient training always express an interest in integrating new ISTs into their business. These confirm the results of several authors, who have identified a positive relationship between, on the one hand, the IT knowledge and innovativeness of managers, and on the other, the use of technologies in SMEs (Agarwal et al. Prasad, 1998; Alshamaila et al., 2013;

Ghobakhloo, Sabouri, et al., 2011; Rahayu and Day, 2015). Indeed, an innovative and creative mind of the leader significantly influences the intention of adopting ISTs, the study by Ramayah et al. (2016) and Newby et al., 2014. An optimistic leader exhibits openness and risk behavior (P8). He can engage in an investment in ISTs, which can offer him the possibility of entering other markets (creation of e-commerce websites, use of social networks to discuss customer needs, etc.). This behavior is mainly due to the will and desire to flourish (P2).

Moreover, according to the words of authors such as Chuang et al. (2009), and Damanpour and Schneider (2006), the youngest patrons are the most ambitious. Those with solid training have a positive influence on employee behavior. They encourage them to use the best solutions to refine their tasks (P10). Respondents also speak of the company's ability to adapt to new market needs. In addition, the size of the company influences the investment in computerization projects. There is a direct relationship between the number of business customers and the adoption of advanced technologies. At the company level, the size of the company can relate to the number of tasks processed and the number of users (P1, P2). According to authors such as Al-Qirim (2005) Alshamaila et al. (2013), the larger the company, the greater its need for sophisticated technological solutions. In order for the company to take advantage of new technologies, it must provide employees with up-to-date technical training. Continuous training plays a key role in updating the knowledge and skills of users (retraining) (P2). The involvement of employees and their participation in the concerns of the company positively affects the acceptance of innovations (Dos Reis and Freitas, 2014; Gallivan, 2001). Organizing the meetings strengthen the relationship between managers and employees and limits resistance behaviors (P5). In this case, managers and supervisors indirectly influence the attitudes of technology users.

For all of our respondents, technology must provide the company with the opportunity to generate positive results. This is also true for a panoply of authors, who place their studies in the context of SMEs (Alam and Noor, 2009; Alshamaila et al., 2013; Alshawi et al., 2011; Chang and Zhu, 2011; Dos Reis and Freitas, 2014; El-Gohary, 2012; Quaddus and Hofmeyer, 2007; Rahayu and Day, 2015; Ramdani et al., 2013; Ramdani et al., 2009; Sun and Jeyaraj, 2013; Thong, 1999;). Technology must respond to strict user needs (P1). It is useful where it helps reduce the cost and time of data processing (P8). A good information system is one that facilitates the user's task and assists the manager in making relevant decisions. For it to be used and accepted, the ISTs must ensure a certain fit with the functions of the company (P1). Mastery of the concept of "Task

/Technology Match" (Goodhue and Thompson, 1995) is necessary for successful technology adoption. This facilitates the task for the user and makes the results profitable. In addition, the use of websites requires a higher level of security measures (Wymer and Regan, 2005) (P7). The confidentiality of personal information improves the confidence of the users is necessary and makes the technology more attractive. The cost of technology strongly attracted our respondents. This factor must be reasonable and within the reach of the company (P9).

According to the respondents and according to several other authors, the external pressure exerted on the company to adopt a technology (Al-Qirim, 2005; Alam and Noor, 2009; Alshamaila et al., 2013; Alshawi et al., 2011; Kurnia et al., 2015; Quaddus and Hofmeyer, 2007; Wymer and Regan, 2005). This pressure is made up of competitors, customers, suppliers, the State (public administrations), and social service institutions (CNSS). Strong competition means adopting the right technology so you don't feel overwhelmed. For some respondents, the market today requires the use of technology. This is necessary in order to closely follow the competition and study the needs of the market (P3, P5). The use of technology, such as a website, is linked to the nature of customers, suppliers and market obligations. The need to have ISO certification influences companies to adopt integrated technology (P5). The use of technology strengthens the network between partners. The relationship between the company and the tax administration and the CNSS gradually took place via the internet. The state requires companies, from January 2017, to use technological applications in their relationship with the public administration (example of electronic declaration and electronic payment).

At the end of the discussion, we reassured the role of the favorable intention to adopt the new ISTs. A psychological factor that conditions the computerization of SMEs and depends on the existence of the influencing factors of choice these entities to invest in innovative projects. This was confirmed by the main authors (Ramayah et al., 2016; Khalifa and Davison, 2006). In addition, the respondents who are constantly advancing: *"When conditions (internal or external) are available, we can think about integrating into this computerization program."*

Generally, the results of this exploratory qualitative study were relevant. In this second table, we present the main factors involved in the process of ISTs adoption by the SMEs surveyed in the Souss-Massa region.

Table 2: Frequency of factors cited by interviewees

Factors		Indicators	Nb of quotes
Individual	Favorable intentions	Intention to acquire new ISTs	5
		If the conditions are favorable, we will integrate innovative ISTs	6
	Positive attitudes	ISTs are important	8
		The use of IST is mandatory	6
	Skills and knowledge	Personal skills	14
		Technical knowledge	12
	innovativeness	Innovative and open mind	4
		Risk taking	3
	Influence of pairs	Willingness of the decision maker	16
	Demographic variables	Age of the decision maker	8
Training and education		8	
Organizational	users	Employee involvement	6
		Recruitment of external computer scientists	3
	Social influence	Influence of family, colleagues and friends	8
		Culture and social belonging	12
	Facilitating conditions	Financial and Human Resources	18
		Continuing training	20
		Connectedness	6
	Size and sectors of activity	Number of employees	8
		Nature of activity	7
		Number of users and tasks	2
Technology	Perceived utility	Save time	12
		Business management	15
		Data security and trust	13
	Perceived ease of use	Ease of use	11
		Complexity of tasks	8
	Compatibility	Suitability to needs	6
Cost	Reduced cost	17	
Environmental	Competition	To distinguish oneself from competitors	7
		Need for quality certification	3
		Part of the market	4
	Business Partners	suppliers	9
		customers	12
		Financial, public and semi-public institutions	6
	State	IT Moussanada Program	5
		State subsidy	9
regulation		6	

Source: Author

CONCLUSION

This qualitative study focused on ten semi-structured interviews with SMEs decision-makers in the Souss-Massa region, who are asked about the factors influencing their intention to adopt ISTs. These interviews lasted an average of forty-five minutes, were conducted according to an interview guide composed of open-ended questions to allow the expressiveness of the participants. The comments made by these people are recorded, then written and submitted to a content analysis conducted, using lexicometric software (Nvivo 11). The results of this study subtract four groups of factors that describe the characteristics of the SMEs surveyed. They also show the need to consider the specificities of the SMEs decision-maker in the process of computerization and gave ideas to battery explain this computerization of SMEs.

This research presents contributions but also suffers from limitations. Indeed, the results of the study offer a practical guide for making relevant decisions by the various actors in the computerization of Moroccan SME. This helps to build a favorable corporate culture with regard to ISTs. It is a matter of taking into consideration the opinions and proposals made by those involved in the study. To implement successfully these ISTs, it is necessary to act essentially on the usefulness and compatibility of ISTs with the owner managers of SMEs and to prepare, with the collaboration of ISTs suppliers, a report where the demonstration of the reduced cost thereof will be made. A business manager wishing, for example, to acquire software with accounting and management control modules must make the accountant, purchasing managers and those involved in the process of recording accounting and financial information understand, the usefulness of the new tool. Brainstorming sessions, where the opinions, feelings, proposals and representations made by these actors of the new tool must be collected. The perceived utility should not be aroused only through “heated” debates, but possibly through initiation workshops where the informed trainer will have to demonstrate to the users that they would reduce the precariousness of the tasks they performed after the training. Use of the software and that it is a learning process that will enrich their human capital and make it re-deployable in several activities, or even in other sectors of activity.

This research presents some contributions but also suffers from limitations. Indeed, the results of the study offer a practical guide for making relevant decisions by the various actors in the computerization of Moroccan SMEs. This can help for building a favorable corporate culture with

regard to ISTs. It is a matter of taking into consideration the opinions and proposals made by those involved in the study. To implement successfully these ISTs, it is necessary to act on the usefulness and compatibility of ISTs with the owner-managers of SMEs and to prepare, with the collaboration of IST's suppliers, a report where the demonstration of the reduced cost thereof will be made. A business manager wishing, for example, to acquire the software with accounting and management control modules must make the accountant, purchasing managers, and those involved in the process of recording accounting and financial information understand, the usefulness of the new tool. Brainstorming sessions, where the opinions, feelings, proposals, and representations made by these actors of the new tool must be collected. The perceived utility should not be aroused only through "heated" debates, but possibly through initiation workshops where the informed trainer will have to demonstrate to the users that they would reduce the precariousness of the tasks they performed after the training. Use of the software and that it is a learning process that will enrich their human capital and make it re-deployable in several activities, or even in other sectors of activity.

Regarding the limitations of this research, are relate mainly to the data collected, which are single source and related to the size of the sample, which is insignificant compared to the number of SMEs in the Souss-Massa region. Overcoming these limits amounts to referring to other theoretical approaches and integrating other methods of collecting and analyzing empirical data to explain battery the behavior of decision-makers in the context of SME. In fact, it is a question of taking into account hierarchical constraint models to better elucidate the role of senior management and external stakeholders in the introduction of ISTs to the SME. It is also necessary to study the effect of network theories and social embeddedness on the behavior and the decision-making process in Moroccan SMEs. Likewise, there is a need to enlarge the sample to other SME stakeholders and other regions and conduct comparative studies. Interviewing ISTs service providers and professionals in supporting the computerization of SMEs and carrying out longitudinal studies would be necessary to more closely monitor the evolution of behavior in the use of ISTs in the case of SME in Souss-Massa region.

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