

## THE IMPACT OF MARKETING INFORMATION SYSTEMS QUALITY IN IMPROVING THE COMMERCIAL PERFORMANCE OF ORGANIZATIONS: ANALYTICAL ESSAY ON THE CASE OF AGRI-FOOD COMPANIES IN THE REGION OF SOUSS MASSA DRAA<sup>1</sup>, MOROCCO.

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### ABSTRACT

The objective of this article is to reveal the relationship between the quality of Marketing Information Systems and improving the commercial performance of the company. To do this, we conducted a collection data, we tested 172 questionnaires on Sales or Marketing Managers of agri-food companies in the Souss Massa Draa Region. The results confirmed the overall hypothesis that the quality of the MIS influences positively the commercial performance of the company. In addition, they showed that the MIS behavioral approach plays also an important mediating role in this direction. Not to mention the size of the company and its technological development likewise have a direct and positive impact on the actual performance. The use of structural equations modeling allowed us to ensure the validity of our research.

**Keywords:** *Information quality, MIS quality, use of the MIS, intention to use, user satisfaction, commercial performance, company size, technological development.*

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<sup>1</sup> The new territorial division approved in Morocco separates [Draa] from [Souss Massa], this work was realized before the changes of regionalization.

## Introduction

In marketing, information is essential in order to understand the client, to confront competition, decide the intentions and orientations (product launch, targeting, positioning, etc.), disseminate appropriate messages with the environment of the company and its various public and to appreciate the success of marketing techniques.

In the same context, the MIS is created by an understanding of all marketing management information needs, it is « a system in which marketing data are formally met, stored, analyzed and distributed to managers in according to their information needs on a regular basis »[20], MIS generally seems effective for the development of enterprises, they achieve the marketing objectives while coordinating, through information, the organization's activities. Their development and quality are essential to get the maximum benefits.

In this light, our article was directed towards the study of MIS quality and it would be an attempt to understand the importance of these systems, regarded as the marketing communication vehicles in the organization and improving its performance.

This article try to provide a conclusive answer to the following question: « **To what extent Marketing Information Systems quality does affect the commercial performance of agri-food companies in the Souss Massa Draa region?** ».

### Theories and approaches of Marketing Information Systems quality

The Marketing Information System plays a strategic role in organizations, its quality and efficiency are important to the accuracy of the marketing decision making.

In their article «The Information System: key element of the control, performance and valuation of the company» [15], the authors consider four key quality criteria that define the level of adaptation of IS, namely the reliability of the information reported (unreliability led to the establishment of documents with anomalies), the information recovery speed (the production process of information must be consistent with the need for speed of decision making. Consistency indicators in view of the situation and strategy of the company and functional coherence of the various IS applications (the consistency of the management rules set in these applications is vital). The French economist Michel Volle [44] thinks that the qualities required of an IS are: relevance, which is according to him adequacy to user needs, sobriety, because it is unnecessary and costly to service features that remain unused, and consistency.

For Michel Barot<sup>2</sup>, the qualities of an IS are four, namely relevance, speed, reliability and confidentiality.

These quality dimensions seem interrelated and are of various aspects according to approaches that treat them. We will remember, among all the above dimensions of quality of information systems, reliability, relevance and timeliness to assess the case for a MIS. Indeed, these dimensions seem more global and give us the opportunity to reveal the human aspect of the quality of the MIS with the concepts of use, systems users and their satisfaction.

### Quality of information and quality of the Marketing Information System

In the field of marketing, information is an important resource to attract the consumer, to compete, defining marketing guidelines ... It therefore seems necessary to establish a relationship between the quality of the information collected in the MIS and his effect on the organizational plan.

To be known as good quality, information needs, according Reynald Morisau[29], to be reliable, complete, accurate, relevant, understandable, protected and available when needed. The reliability of information refers to the fact that this information must be accurate and precise. In addition, the use by a manager of

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<sup>2</sup> Associate Professor of Economics and Management in high school Jean Moulin de Thouars, France.

incomplete information can lead to decisions that do not meet the requirements of the real situation « incomplete information can be useful, but its value is much less when compared to complete information» [28].

Added to this is the availability of information « the information produced by a system will have no use if it is not available when the user needs it » [28].

The quality of information plays an important role in improving and measuring the quality of the MIS. Without reliable, relevant and consistent information, it's difficult to act everyday. Indeed, the increased dependence of organizations regard to IS and organizational losses related to the poor quality of information lead to increased attention to improving the quality of IS from managers » [13].

### **The impact of the quality of information and the quality of MIS on the intention of its use**

The Theory of Reasoned Action (TRA)<sup>3</sup> suggests that the intention to adopt a technology is determined by two basic factors, one reflecting its personal interest (an attitude that leads a user to assess, favorably or unfavorably, the adoption of IT, and the other is his social influence (the perception of individuals to what others expect of them and their motivation to comply with these requirements) [2].

Hartwick and Barki[14] note that subjective norms exert a more significant effect on the intention of a user in the case of mandatory use than in the case of voluntary use. In addition to these measures of intention to use, the perceived usefulness of the use made subject of much work in this direction. The Technology Acceptance Model (TAM)<sup>4</sup> says that attitude is determined by two beliefs about technology, namely the perceived usefulness (users choose tools that will allow them to complete their work with an expectation of a higher profit) and ease of use.

The intention to use the IS is influenced by various factors such as the quality of information circulating within it and the quality of the same system. An empirical application of DeLone and McLean model in the field of e-commerce found that the information quality is positively correlated with the intention to use IS [38]. Another study [19] by Jen-Her Yu-Min Wu and Wang on the Knowledge Management Information Systems stated that improving the quality of information of the IS is associated with an increased intention of use resulting from perceived usefulness.

The quality of the IS has been considered, for its part, in the literature as one of the factors affecting the intention to use IS. The study of Venkatesh and Morris [43] in 2000 examined this relationship through measuring the quality of the system by its ease of use and showed that when it increases, behavioral intentions to use the system increase. Added to this, a study [6]. of Portuguese SMEs in 2002 has concluded that software quality is a factor strongly associated with the desire to use.

### **The impact of the intention of using MIS on its actual use**

The importance of intention to use the IS also resides in the fact that it affects the behavior of the use. DeLone and McLean consider that « the use of the system concern the degree and the way that the staff and clients use the capacity of an IS» [8].

The literature review proposed several measuring dimensions of use, such as frequency of use, effectiveness, relevance and ease [39].

According to the Theory of Planned Behavior « intentions are presumed to capture the motivational factors that influence behavior, the relationship between the intention of making a behavior and its effective

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<sup>3</sup> The Theory of Reasoned Action is a model that comes from social psychology. This model developed by Fishbein and Ajzen (1975) defines the links between beliefs, attitudes, norms, intentions and behaviors of individuals.

<sup>4</sup> Technology Acceptance Model is a specific model developed by F. Davis (1989) to study and explain the acceptance and use of Information Technology

implementation is direct »<sup>5</sup> The intention to use and actual use of IS are two important elements as crucial stages between production and results of IS. However, after acceptance, use or reject the IS, the use must generate results whether at the user level or at the organizational level, what drives us to study its impact on user satisfaction.

### **The impact of information quality, use and MIS quality on user satisfaction**

According to Richard Oliver, « satisfaction can be seen as a function of expectation levels and a perception of the confirmation or non confirmation of these expectations » [34].

Several researchers [36] conceptualize it as a one-dimensional variable, measured as a one-dimensional continuum between two extremes, (very satisfied) and (very dissatisfied). Other [28]. conceive it as a multidimensional construct, measured by various dimensions including user involvement [3] (sense of need based on the psychological state of users, their attitudes during the development process of the system), suitability to the needs of users and the general appreciation of the users as in the case of the study of Almutairi and Subramanian [1], this measure concerns the overall value judgment expressed by users.

User satisfaction is influenced by several factors, Seddon and Kiew say that the quality of system, quality of information and the usefulness perceived influence and explain it to 72% [40].

According to these authors, the first two factors jointly affect the use of the system, which secretes itself its own impacts, in their turn they modify the relationship to technology. « The approach based on user satisfaction implicitly suggests a model of the human-technology-organization relationship loop. The success in the use being apprehended by the user's satisfaction level, itself determined by two major quality factors (information and system) » [4]. This link between the system quality and user satisfaction was interpreted in a study of Jen- Her Wu and Yu-Min Wang [19] that users expect that the system responds to three types of expectations: be of high quality, provide good knowledge and to provide them a wider benefits.

User satisfaction is also related to user interaction with the system. Through use, the user would like personal advantages, "he first search to maximize satisfaction and thus, sees in the subjective evaluation of satisfaction during use, a determinant of a successful technology" [4], which proves the existence of a relationship between use and user satisfaction. For DeLone and McLean, "the IS use influence positively or negatively the user satisfaction, which will impact the user and then possibly the organization" [9]. In their model updated in 2003, these authors considered that "the use must precede the satisfaction in one way process, but a positive experience of the use will lead to greater satisfaction in a causal sense" [8].

### **The relationship between the quality of the MIS and the commercial performance of the company**

Commercial performance can be seen as the achievement of business objectives so on average employed to achieve them. However, "it is not limited to actions directly incurred for sale, it also includes marketing, communication or also advertising" [17]. It depends on the quality of the company's relationship with its customers, the effectiveness of sales and management of commercial forces.

The performance measurement requires organizations to use a set of indicators that describe it. There are those quantitatives as the volume of sales, turnover, market share ... and those related to qualitative satisfaction and attitudes of customers towards the company or its products (satisfaction or customer loyalty, corporate image, perceived quality and brand value [24]., motivation of sellers...).

For our part, we will study this performance through quantitative and qualitative measures to assess the evolution of its indicators homogeneously.

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<sup>5</sup> The Theory of Planned Behavior (TCP) has been proposed as improving the Theory of Reasoned Action, it aims to explain or influence behavior from their links with the attitudes and social norms.

**MIS quality as a contribution to the commercial performance of the organization**

The question of the contribution of IS to the company's performance is a recurring issue in IS research. In this context, P. Geroski suggests that « there are two different views, the first view that the production of new products or processes strengthens the competitive position of a company compared to its rivals, but the benefits will be transitory and only last as long as the innovative company can defend its position against its rivals. The second opinion holds that the innovation process fundamentally transforms company by strengthening its internal capabilities » [11].

The relationship between the MIS quality and commercial performance appears to be clear in the literature. The DeLone and McLean model of IS success, have identified the success of an IS as a multifaceted concept that includes measures of quality and the same quality of the IS is central and has a significant influence on other components. However, what matters is that it impacts the individual results which, on their part, generally impact those represented by organizational performance.

LL Ramarotafika [24] tried to check whether the IS for marketing decision contribute to improving commercial performance, he concluded that the MIS plays an indispensable role in marketing decision making and achieving competitive advantage and that it influences the level of commercial performance. According to him « the contribution of this system to improve marketing decision appears to act directly on the level of achievement of commercial and marketing objectives » [24].

**The influence of the MIS user behavior on the company's commercial performance:**

Investment in MIS can't, by itself, guarantee the company's performance. These means should be used to give the expected results. In 1998, the study of Yuthas and Young highlighted that "over the period of use of IS increases, the company's performance improves" [45]. Similarly for the study of Burton-Jones and Straub, conducted in 2006, which found the existence of a highly significant relationship between the use of the system and work performance [5]. In our article, we will adopt the view of the authors who have confirmed the existence of a link between the use and performance, to verify the accuracy of our study context.

Besides the use of IS, user satisfaction has been considered as a factor that also influences the performance, Goodhue and Thompson have shown that "the IS can have a positive impact on performance, if there is a correspondence between its features, tasks and requirements of the users towards these tasks" [12]. User satisfaction is therefore an antecedent of performance. The empirical results found a strong association between user satisfaction and benefits of the system performance, is the case study of Juhani Livari [25] in 2005. This is also the case that TJ McGill confirmed in his study [27]. that user satisfaction is essential to improve the performance of the company.

**The size and technological development of the company as determinants of commercial performance**

The literature is divided over the defining criteria of the concept of enterprise size. They are of two types, those qualitative (type of management, ownership and geographic scope) and those which are quantitative (number of employees, turnover, assets, capital and market share held by the company). However, the two most commonly used criteria are the amount of the annual turnover and number of employees, « the criterion of permanent global workforce is widely used because it is simple to access and easy to implement » [32].

The relationship between the size of the company and its performance has received considerable attention in the literature. Indeed, several arguments favor the fact that large companies can achieve better performance, especially they are "more likely to exploit economies of scale and enjoy a higher bargaining power with their customers and suppliers» [37]. IS are part of technological aspects, their quality improves with the size of the company, "the IS is spontaneous in smaller companies, but it's the subject of particular attention in big companies" [16]. This was justified by the fact that "the company size involves a complexity of

organization, and if this size has to evolve, the master plan should be reviewed" [23].

With increased competition and mostly saturated markets today, regardless of the size of the company, it must develop defensible competitive advantages that will enable it to evolve successfully. The technology increases the capacity of commercial functions and corporate marketing. Also, technological development makes possible technically but also economically advantageous to develop and maintain long-term customer relationships.

The literature review has shown that performance is strongly influenced by technological development. Indeed, "Organizations invest in IT in order to collect and analyze information faster, create and share knowledge that can be leveraged to improve performance" [41].

Websites play an undeniable role in this context, especially that "with the democratization of internet access, more and more companies have a website where their activity is described" [18]. Web sites are added to the ERP, thus referring facilitating the management of business processes by integrating several functions in one system. They offer greater operational efficiency. In a study on organizational performance, Bergeron and Raymond [22] have concluded that it is strongly influenced by the technological level of the company.

### **Hypotheses and research model**

We formulated six hypotheses to link dependent variables with those independent, each hypothesis was based on earlier theoretical work.

**Hypothesis 1:** The quality of information positively influences the quality of MIS, intention to use and satisfaction of users.

H1.1- The quality of information positively influences the quality of the MIS.

H1.2- The quality of information positively influences the intention to use of users.

H1.3- The quality of information positively influences user satisfaction.

**Hypothesis 2:** The quality of the MIS positively influences the intention to use of users, their satisfaction and commercial performance of the company.

H2.1- The quality of the MIS positively influences the intention to use of users.

H2.2- The quality of the MIS positively influences users' satisfaction.

H2.3- The quality of the MIS positively influences the commercial performance of the company.

**Hypothesis 3:** The intention of use expressed by users of MIS positively influences their actual use.

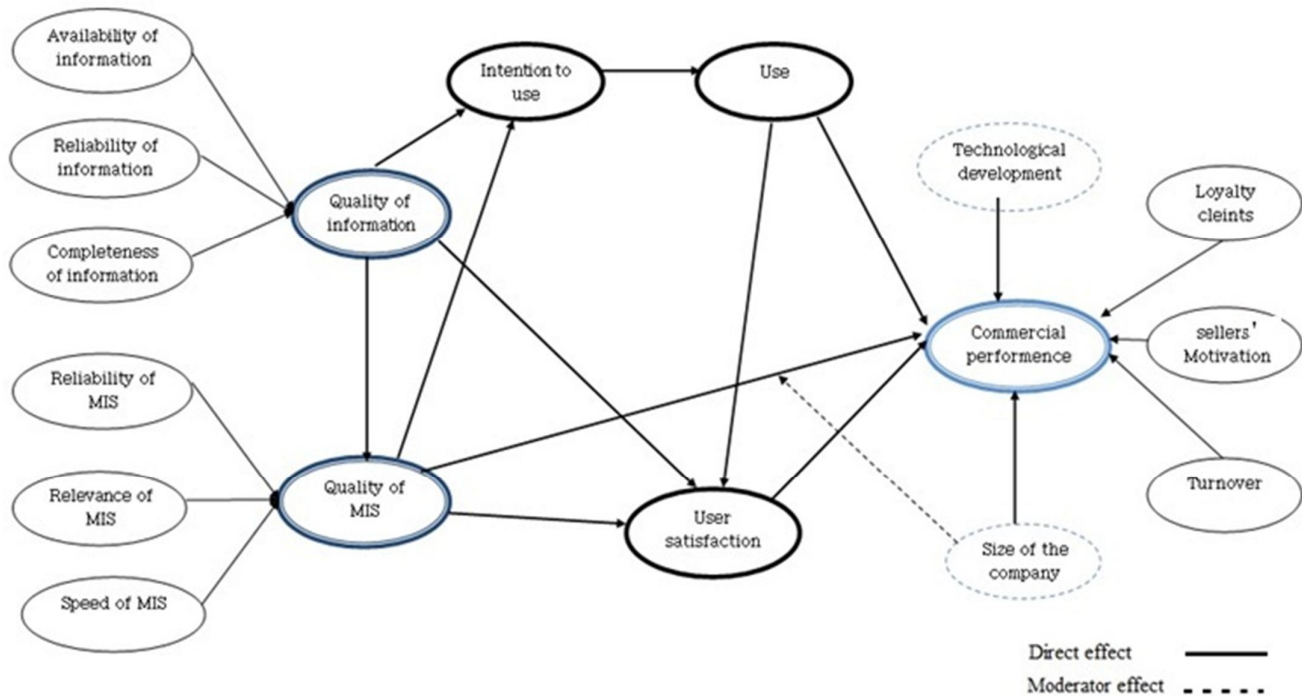
**Hypothesis 4:** The use of MIS positively influences user satisfaction and commercial performance of the company.

H4.1-The use of MIS positively influences user satisfaction.

H4.2-The use of MIS positively influences the commercial performance of the company.

**Hypothesis 5:** User satisfaction of MIS positively influences the commercial performance of the company.

**Hypothesis 6:** The size of the company moderates the bipartisan relationship "quality of MIS and commercial performance of the company."



### **Research methodology:**

We will try in this work, to draw results from empirical field observations. We are going to follow a hypothetical-deductive approach. To meet this objective of research, we chose the questionnaire survey as data collection mode. According Agathe Couvreur and Franck Lehuede, this type of survey allows to « measure behaviors and describe the characteristics of a population with a particular behavior ... It is designed to test hypotheses and to illustrate theories by highlighting correlations between variables» [7].

All information collected on agribusiness entities have shown that the structure of our population is 232 companies. We opted for a stratified probability sampling which allows to have a degree of accuracy higher of estimates, it is « a sample that segments the population from one or more criteria defined a priori» [42].

Despite the strong heterogeneity of the companies constituting our overall population structure, there are two main strata with homogeneous companies constituting in internal, are packing stations citrus and vegetables (64 stations) and processors (168 companies). Of a total of 232 food companies, we have had as a representative sample, 172 companies<sup>6</sup>, including 117 processing units and 55 packing stations.

The most appropriate method to meet the purpose of our investigation is the questionnaire administration face to face. Indeed, "the long questionnaires need to be administered directly because once self-administered, they tend to create stereotypical responses towards the end." Our investigation lasted from 5 September 2013 until the end of February 2014.

<sup>6</sup> According to the formula bringing out the sample size  $n = t^2 * p * (1-p) / m$   
n: minimum sample size to obtain significant results for an event and a level of risk attached.  
t: Confidence level (typical value of the level of 95% confidence is 1.96).  
p: Probability of event completion  
m: Margin of error (usually set at 5%).

### **Analysis of results:**

#### **Validation of measuring instruments:**

We will, in this axis, test hypotheses and research model, while exposing our results in two parts: a factor analysis and confirmatory analysis.

To analyze the results of the Principal Component Analysis, some criteria have been selected:

1. Verification factorization data requires **the review of Kaiser Meyer Olkin test (KMO)** according Malhotra and others in 2007 [26] and Jolibert and Jourdan in 2006 [21], and **Bartlett's sphericity test** advocated by Peterson [35]. in 1995.
2. The interpretations of factor analyzes require the examination of **the Kaiser criterion**. To keep a factorial axis, « it is necessary that its own value is greater than unity, this criterion provides a valuable indication of the number of axes to keep» [10].
3. The axis interpretations require the examination of factor contributions and communities (commonalities) items factors. According Jolibert and Jourdan [26], the minimum threshold of 0.4 on a single axis. Below this threshold, the items will be excluded.

#### **The internal reliability:**

To ensure the reliability of a scale, the coefficient "Cronbach's Alpha" remains the classic indicator of internal reliability. This indicator is between 0 and 1 and is proportional to the internal consistency of the scale. In practice, the rules allow the acceptance or rejection of the scales based on their alpha. These rules provide the thresholds to achieve acceptable to judge the internal consistency of a scale. Nunnally, JC [31] proposes that « in general we accept values greater than at least 0.6. »

After the validation process of measuring instruments, it appears from tests carried out on scales 14, 13 had to be the purification and only two items were removed. The table below provides a summary of the results of the validation of measuring instruments. The various independent latent variables, dependent and of controls are in effect observed from the indicators that the questionnaire items were used to measure.

Regarding the three dimensions of the quality of the MIS "reliability, appropriateness and timeliness of the system", respectively, they also have significant effects on the built second order "MIS Quality" ( $p < 0.01$ ). These three facets have an almost equivalent weight of said built. They are 0.993 of its variance, which is considered very satisfying Furthermore, the three dimensions "customer loyalty", "sellers' motivation" and "turnover" have respectively a significant impact on commercial performance ( $\beta = 0.206$ ,  $\beta = 0.599$ ,  $\beta = 0.268$ :  $p < 0.01$ )<sup>7</sup>. Dimension "sellers' motivation" is the determining empirically

<sup>7</sup> It should be noted that the weight of these sub-constructed was changed after taking into consideration the two control variables in the measurement model.



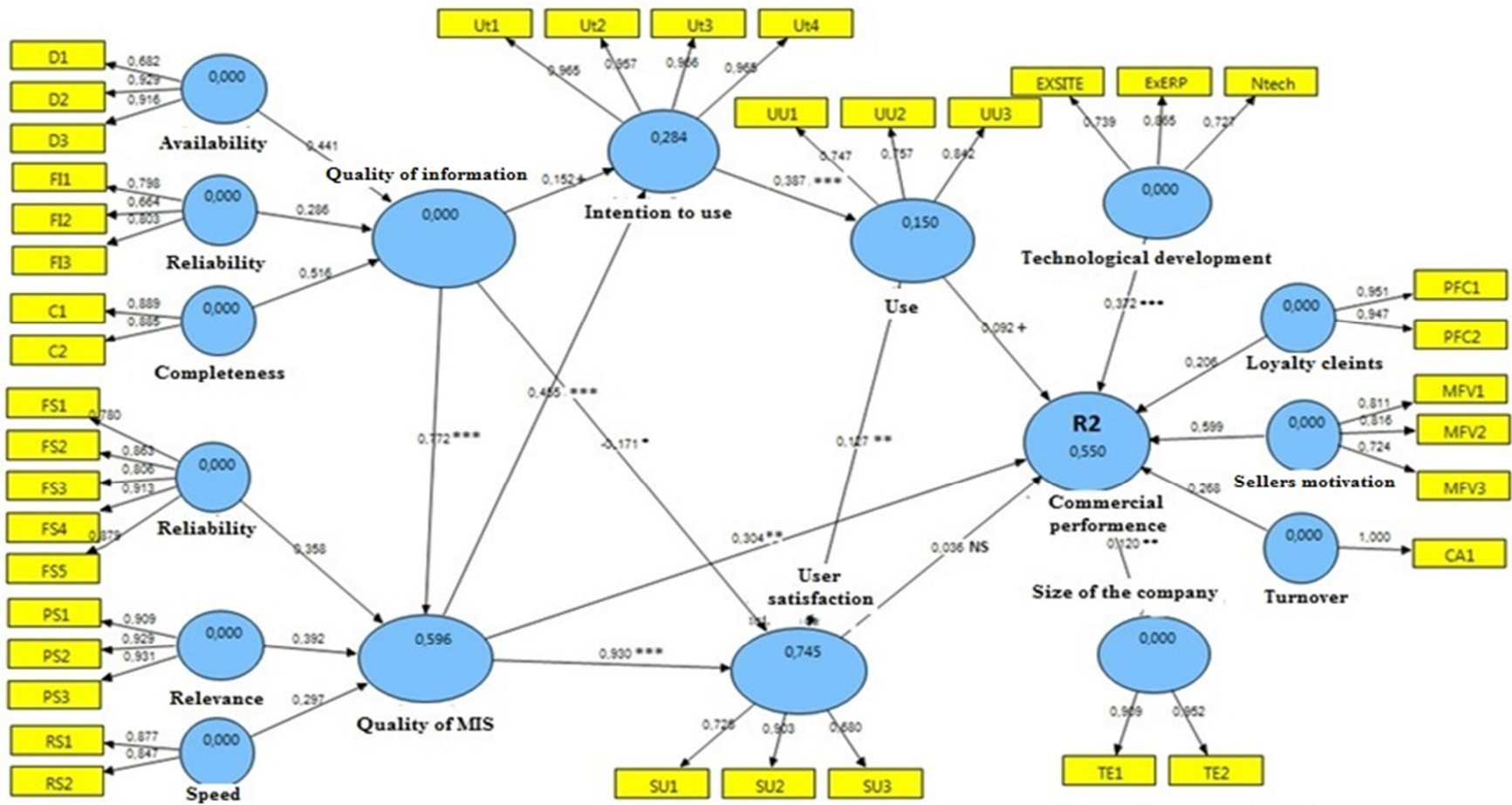
followed by the other two dimensions. The three facets of commercial performance in our research are of the variance of 0.969 constructed second order, which is also very satisfying. With the exception of the link between information quality and user satisfaction, the other results are in line with the assumptions made. From these causal coefficients that the quality of the information has a positive and highly significant effect on the quality of the MIS ( $\beta_{1.1} = 0.7719$ ;  $p < 0.000$ : well below 1%), while weakly influences intention to use ( $\beta_{1.2} = 0.1519$ ,  $p < 0.15$ ), which validates partially our hypothesis (H1.2). Due to a negative coefficient of causality, but significant at the 10% level ( $\beta_{1.3} = - 0.1713$ ), the research hypothesis (H1.3) was negatively validated. Although the quality of information has a positive effect on the MIS quality and users intention to use, it negatively influences the satisfaction of the latter. This finding is justified because of the insufficiency of the quality of information in creating a positive and direct satisfaction among users of the MIS. As being taken in isolation, the effect is negative, then that through the intention of the use, the quality of the information which increases the latter involves the use, which in turn, increases user satisfaction. Also through its effect on the quality of the MIS, we found that the positive impact and this improvement contribute to creating satisfaction among users. Satisfaction seems more a direct result of the quality and use of the system and the quality of information, at this point more precisely the dissatisfaction of the user will continue to increase in spite of the good quality of information, given the absence of use of the system or of poor quality.

### Summary of results of the measurement instruments validation

Scale variables		Number of Items	Meaning Bartlett	KMO	Eigenvalue of the principal component	%Of the variance	$\alpha$ of Cronbach	Modification
<b>Scale of independent variables</b>								
Quality of information	Availability of information	3	p = ,000 (significant)	,637	2,187	72,892 %	0,797	No change
	Reliability of information	3	p = ,000 (significant)	,607	1,723	57,45 %	0,617	No change
	Completeness of information	2	p = ,000 (significant)	,500	1,574	78,694 %	0,724	No change
Quality of MIS	Reliability of MIS	5	p = ,000 (significant)	,879	3,607	72,135 %	0,895	Deleted item <b>FS6</b>
	Relevance of MIS	3	p = ,000 (significant)	,755	2,555	85,167 %	0,912	No change
	Speed of MIS	2	p = ,000 (significant)	,500	1,487	74,358 %	0,631	No change
Intention to use		4	p = ,000 (significant)	,847	3,714	92,837 %	0,974	Deleted item <b>UT5</b>
Use		3	p = ,000 (significant)	,624	1,842	61,388 %	0,647	No change
User satisfaction		3	p = ,000	,644	1,842	61,770 %	0,666	No change
<b>Scale of the dependent variable</b>								
Commercial performance	Loyalty cleints	2	p = ,000 (significant)	,500	1,801	90,030 %	0,882	No change
	Sellers' motivation	3	p = ,000 (significant)	,655	1,853	61,770 %	0,665	No change
	Turnover	1	--	--	--	--	--	No change
<b>Scale of control variables</b>								
Technological development		3	p = ,000 (significant)	,658	1,835	61,161 %	0,666	No change
Size of the company		2	P=,000 (significant)	,500	1,737	86,862 %	0,844	No change

### Structural links of the tested model

Structural links of the tested model



Regarding the quality of MIS effect on the intention to use, we obtained a positive and significant causal factor ( $\beta_{2.1} = 0.4065$ ,  $p < 0.01$ ), which validates the hypothesis research (H2.1). Similarly, the research hypothesis (H2.2) is confirmed by a coefficient of positive and strongly significant causal ( $\beta_{2.2} = 0.9297$ ,  $p < 0.000$ , well below 1%). This hypothesis related to the quality of the MIS user satisfaction. The result says that the quality of MIS greatly explains the extent of satisfaction of its users. Furthermore, a high causal coefficient ( $\beta_{2.3} = 0.3038$ ;  $p < 0.05$ ) confirming the research hypothesis (H2.3).

The third research hypothesis is confirmed by a positive and significant coefficient of causality ( $\beta_3 = 0.3875$ ,  $p < 0.01$ ) that connects intention to use the MIS expressed by users to its actual use. In addition, the results also reveal that the use influences significantly and positively user satisfaction ( $\beta_{4.1} = 0.1274$ ,  $p < 0.05$ ). This validates our research hypothesis (H4.1). In addition, the use has a positive and significant influence on commercial performance with low importance effect ( $\beta_{4.2} = 0.0918$ ,  $p < 0.15$ ). We can therefore say that the hypothesis (H4.2) is partially validated.

Finally, the result of the standardized coefficient ( $\beta_5 = 0.0360$ ) and more particularly a non-significance than at least 0.15, and emphasizing the relationship between the satisfaction of the MIS user and commercial performance is invalid for our sample. Indeed, the probability  $p$  is large enough to reject the hypothesis (H5). The non-confirmation of this assumption may be justified by the fact that user satisfaction is more a result than a cause of commercial performance, as concluded Baroudi, Olson and Ives[3] in their study, which confirmed that the user wants to take a personal gain from technology "mainly material", they are particularly dependent on the performance of the company, which, once realized a significant increase in terms of turnover, or enhances its portfolio customers, offers its staff, especially its sellers' financial compensation.

The two control variables "technological development" and "company size" have significant effects (1% and 5%) on commercial performance.

The following table summarizes the results obtained:

Hypothesis	Description	$\beta$ standardized	statistics -t-	explained variance $R^2$	Status of the hypothesis
H1.1	Quality of information Quality of MIS	0,7719***	20,2163	0,5958	validated
H1.2	Quality of information Intention d'usage	0,1519+	1,2586	0,2836	partially validated
H2.1	Quality of IS → Intention of use	0,4065***	3,4494		validated
H1.3	Quality of information Users satisfaction	-0,1713*	1,6779	0,7446	validated
H2.2	Quality of system → Users satisfaction	0,9297***	10,4393		validated
H4.1	Use → Users satisfaction	0,1274**	2,3891		validated
H3	Intention of use → Use	0,3875***	4,6000	0,1501	validated
H2.3	Quality of system Commercial performance	0,3038**	1,9843	0,5497	validated
H4.2	Use Commercial performance	0,0918+	1,5613		partially validated
H5	Users satisfaction Commercial performance	0,0360 (NS)	0,2607		not validated

+p<, 15 ; \*p<, 10 ; \*\*p<, 05 ; \*\*\*p<, 01

**NS: not significant**

#### **The test of moderating effects of company size:**

The results showed that the explained variance (R<sup>2</sup>) is increased from 54.97% to 55.31%. Similarly, the structural coefficient relating system quality and commercial performance increased from 0.304 to 0.314. However, we note that the structural coefficient relating the size of the company to commercial performance is decreased (increased from 0.121 to 0.103) and significant at the 10% threshold (T = 1 student, 694). In addition, the test results of the second equation (additional effects model) showed that the interactional effect: MIS Quality \* Size of the company on the sales performance was very low ( $\beta = 0.023$ ) and not significant. Moreover, taking into account this interaction effect improves only weakly explained variance (additional variance is a value of 0.34%, in the form of Chin 2003), and is 0, 61% in absolute terms of the additional variance). Therefore, our research hypothesis H<sub>6</sub> is rejected, which means that the size of the company, despite being large does not improve "does not increase" the effect of the quality of the MIS on commercial performance of the company. This result is justified by the size of the companies which constitute our study sample, it has only three major companies. However, the 169 remaining are very small, small and medium enterprises. So the results of three large companies are negligible compared to the rest and do not allow to compare fairly the company's size moderating effect on the relationship quality of the MIS \* commercial performance on our sample study.

#### **Conclusion**

Analysis of the results of this study allowed us, through the method of structural equations, better test our research hypotheses, resulted in the relationships between the quality of information, the quality of the MIS, use, the satisfaction of its users and the commercial performance of the company. This method had the advantage of helping us to bring out compelling and essential results for the confirmation of our hypothetical research model in the context of the agri-food in Morocco. These results constitute a contribution for us to analyze the relationship between the quality of the MIS and commercial performance of the company.

The importance of MIS quality in improving commercial performance has been demonstrated for our study. In fact, this quality positively influences the intention of use of the Information System and the satisfaction of its users regarded as two important variables in our study. It also creates a direct and positive effect on the commercial performance of the company. Moreover, the mobilization of the behavioral approach of IS has validated some relationships related to the positive effect of the intention to use by users on their actual use, and the impact of the latter on the company's commercial performance dimensions "Improved turnover, customer loyalty and sellers' motivation".

The use of statistical methods for second generation has helped us, as part of this research, to ensure greater validity of our theoretical model, and therefore the results of our study confirmed the overall hypothesis that MIS quality undeniably contributes to improve commercial performance of the agri-food sector companies in the Souss Massa Draa Region.

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