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Contextual factors impact on the use of new management accounting practices: An empirical analysis in the Tunisian context

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ABSTRACT

A great interest has been paid to the explanation of the difference in the use of the new management accounting practices between companies. In this present research, we applied the contingency theory in order to improve our understanding of the factors that may explain the use of a set of three new practices of management accounting. In particular, we examined the impact of five contingency factors, such as the perceived environmental uncertainty, the relational capital with suppliers, the generic strategy of cost domination, the organizational architecture and the company size, on the use of the Activity Based Costing (ABC), Balanced Scorecard or (BSC) and the financial and accounting benchmarking. The results showed that the level of the perceived environmental uncertainty, the relational capital with suppliers and the company size significantly affect the use level of the new management accounting practices.

Keywords: New management accounting practices, contingency theory, perceived environmental uncertainty, relational capital with suppliers, company size.

INTRODUCTION

Under the conditions of intensified competition, the management of an enterprise needs objective information resulting from the use of a set of new management accounting practices in order to be competitive and effective in markets. The need to develop such practices has increased rapidly (Haldma and Lääts, 2002).

To be able to make generalizations about the use of new management accounting practices, the researchers and practitioners need more information regarding the use of these practices and the factors that influence them in companies.

In fact, to explain the difference in use of these practices between companies, researchers have adopted the contingency theory to show how the specific aspects of an accounting system are associated with several contextual variables (Al-Omiri and Drury, 2007; Abdel-Kader and Luther, 2008).

However, the Tunisian accounting literature suffers from the lack of research in this area. The scarcity and the importance of such research are therefore the main motivations of our survey. In addition, the Tunisian firms are currently experiencing a new economic and political turbulence. For this reason, they must be very demanding in their management in order to anticipate the changing environment and manage its uncertainties. Therefore, they are compelled to decide a management accounting system compatible with the new market requirements to deal with competitiveness.

The objective of this research is to explain the impact of a set of contingency factors such the perceived

environmental uncertainty, the relational capital with suppliers, the generic strategy of cost domination, the organizational architecture and the size of the company, on the use of three new management accounting practices such as the Activity Based Costing (ABC), the Balanced Scorecard or (BSC) and the financial and accounting benchmarking.

In what follows, we first present the theoretical framework that leads us to set the hypotheses to be tested. We will then present the research methodology. Afterwards, we will discuss the results. We will end up with a conclusion.

The theoretical framework and the development of the hypotheses:

A major part of the management accounting research has been the application of the contingency theory to the study of the design of the system of management accounting and performance (Gul and Chia, 1994; Moores and Chenhall, 1991).

It is in this line of research that we present this work by considering the effect of five contingency factors on the use of the new management accounting practices. More specifically, these variables are related to the perceived environmental uncertainty, the relational capital with the suppliers, the generic strategy of cost domination, the organizational architecture and the size of the company.

The perceived environmental uncertainty:

Given the turbulent environment that continually encounters the accounting profession, the researchers' attention paid to the influence of the environmental uncertainty in the models and theories should remain an area of study (Tymon, Stout and Shaw, 1998; Chenhall, 2003).

The need to consider the environment in the design of the management accounting system seems to be of a crucial importance. Particular characteristics of the management accounting information appear to be more valuable to the decision makers in a range of environmental conditions than in another (Gordon et Nayaranan, 1984; Baines et Langfield-Smith, 2003).

Chong and Chong (1997) as well as Gul and Chia (1994) reported that perceived environmental uncertainty is an important antecedent of the management accounting system design which affects the adoption of the most developed management accounting practices. Similar statements are reported by Moores and Chenhall (1991), Chenhall (2003) and Abdel-Kader and Luther (2008).

These established research results lead us to include the degree of the perceived environmental uncertainty as a contingent variable which influences the use of the new

management accounting practices. For this reason, we set the following hypothesis:

H1: The perceived environmental uncertainty influences positively the use of new management accounting practices.

The relational capital with suppliers:

The suppliers are external entities to the company which can influence its organizational systems. The theory of social capital is an important perspective to theorize the nature of this relationship between the organizations (Carey, Lawson and Krause, 2011; Lawson, Tyler and Cousins, 2008).

Nahpiet and Ghoshal (1998) proposed three dimensions of the social capital: the relational, cognitive, and structural capital. The relational capital, in particular, refers to trust, obligation and identification existing in the relationships between people (quoted by Carey, Lawson and Krause, 2011) and which are the result of previous interactions (Lawson, Tyler and Cousins, 2008; De Clercq and Spaienza, 2006).

O'Regan and al. (2005) underlined the importance of deploying some techniques such as the ABC and the Balanced Scoreboard in order to provide high quality information for decision making purposes related to the intangible capital such as the supplier capital.

In addition, Degraeve and Roodhooft (1999) have stipulated that the ABC makes it possible to quantify the costs related to the purchasing process and to distinguish between the different suppliers in order to be objective in the process of supplier selection and improve his strategic position (his transaction costs, delivery time, quality, etc..).

Besides, a large relational capital with the suppliers based on trust and friendship increases the willingness of the customer and the supplier to take additional risks and assume higher investments to achieve better strategic benefits. However, when the relational capital increases, it can help create an opportunistic behavior. Excessive levels of confidence can lead the buyer to reduce his monitoring efforts to the point that he can be subject to a mischief by the supplier (Villena, Rivella and Choi, 2010).

Therefore, to avoid all the problems related to the lack of control in a context of high levels of relational capital with the suppliers, it is beneficial to use new management accounting practices as control mechanisms.

From what has been already mentioned, we find it interesting to check the relationship between the relational capital with the suppliers and the use of new management accounting practices.

Thus, we suggest the following hypothesis:
H2: The relational capital with the suppliers has a positive effect on the use of the new management accounting practices.

The generic strategy of cost domination:

Jermias and Gani (2004) reported that Porter (1985) argues that the company must derive sustainable competitive advantages either through applying a generic strategy of cost domination or through a differentiation strategy.

Recent studies in management accounting found that the strategic priorities need to be supported by an appropriate control and accounting management systems (Chenhall and Langfield-Smith, 1998; Jermias and Gani, 2004).

Thus, considerable attention was paid to the incorporation of the strategy as a contingent factor in the design of management accounting system. However, the results were divergent.

The study of Moores and Chenhall (1991) identified that the two strategies of cost domination and that of the differentiation need information based on new management accounting practices. Of their part, Abdel-Kader and Luther (2008) found no significant difference between the effect of the differentiation strategy and that of the cost domination on the adoption of advanced management accounting practices.

However, Jarvenpää (1998) reports that traditional management accounting practices are related to a strategy of cost domination. In the same way Chenhall and Langfield-Smith (1998) state that the traditional practices may be suitable for businesses having a strategy of cost domination. Nevertheless, they also notice that these companies may have a strong emphasis on the ABC.

Given the diversity of the empirical results in the extensive literature, especially regarding the relationship between the generic strategy of cost domination and the new management accounting practices, it seems interesting to test this relationship in a different context.

Indeed, the ABC can be useful for calculating more accurate costs to help managers to find activities where there may be cost reductions. Benchmarking can also help companies find the best practices for solutions to reduce some costs. Finally, the balanced scorecard can be an effective tool to reflect the effectiveness of this strategy of cost domination in different areas of the company .This leads us to suggest the following hypothesis:

H3. The generic strategy of cost domination has a positive effect on the use of new management accounting practices.

The organizational architecture:

The organizational architecture is defined through three dimensions: the allocation of the decision rights (centralized or decentralized) and control systems composed by system of performance evaluation and an incentive system (Catelin, 2003).

Brickley, Smith and Zimmerman, (2002), report that by designating organizational architecture, the CEO faces three alternatives. First, he may opt to centralize rights with non-detailed control systems. Second, he may try to acquire the relevant information in order to make better decisions. Third, he may choose to decentralize decision rights with detailed control systems.

According to Baines and Langfield-Smith (2003), the role of management accounting in decentralized architecture of the organization is not simply to deliver the cost data, but to provide a service that enables employees to take better decisions. In addition, since a greater responsibility for decision-making is shifted to lower levels of the organization, there was an increasing need for relevant information to the senior management. Financial and non-financial performance indicators can form an integral part of the information base necessary for the success of the team.

Chenhall (2003) reported that decentralized organizational structures fit the analyses of the ABC, while Abdel-Kader and Luther (2008) indicate that decentralized organizations tend to rely on systems of advanced management accounting.

Wegmann (2008) also highlighted the positive relationship between the organizational architecture and the use of management accounting practices, precisely the ABC. Indeed, he discussed how the control of the allocation of the decision-making rights helps explain the use of ABC as a new management accounting practice and as an element of this architecture. "In addition, management accounting is a tool of monitoring, warning, controlling of the opportunistic behavior and of sanctions and rewards, and hence, support the decision-making (Wegmann, 2008).

According to what has been previously said, it seems that decentralized organizational architecture with detailed control systems positively influences the use of the new management accounting practices in order to have additional tools for the control of the subordinates' opportunistic behavior.

The following hypothesis is thus worth setting:

H4: The organizational architecture of a firm has a positive effect on the use of new management accounting practices.

The company size:

The company size is an important factor that can affect the control arrangements. In general, large companies adopt innovations more easily than smaller ones do because they have a capability of managing the risk, abundant available resources and a strong infrastructure. On the contrary, small businesses suffer from the lack of resources, from financial difficulties and from the scarcity of professionals, the thing which can lead to difficulties in adopting innovations (Ko et al., 2008).
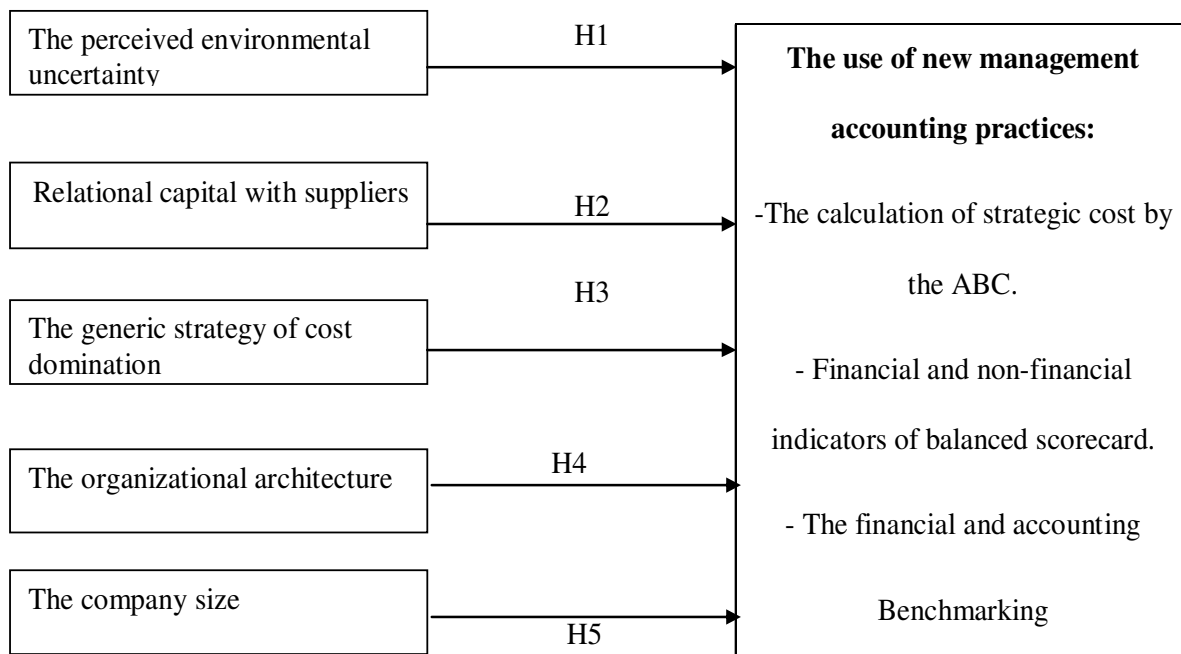
Figure 1. The conceptual model of the relationship between the contingency factors and the use of new management accounting practices.

Thus, large organizations have human, financial and technical resources to adopt and use new management accounting practices more than smaller ones do (Joshi, 2001; Haldma and Lääts, 2002; Al-Omiri and Drury, 2007; Cadez and Guilding, 2008, Abdel-Kader and Luther, 2008; Moores and Chenhall, 1991, Chenhall and Langfield-Smith, 1998).

On their part, Cadez and Guilding, (2008), report that the company size is positively related to the level of the accounting development. They also report that the use of strategic management accounting is higher in large companies.

Given what has been mentioned, we propose to test the following hypothesis:

H5: The company size has a positive effect on the use of new management accounting practices.

Thus, our conceptual model is shown in figure 1 above

THE RESEARCH METHODOLOGY

In what follows, we will first present the applied measuring instruments then the description of the sample and the adopted method of the data collection.

The operationalization of variables:

In order to generate items with which we can measure our constructs, we have referred, first, to the theory and, second, to debates with specialized professionals in the field of management accounting to create some items and guide others inspired by the theory due to the difference between contexts.

In what follows, we propose to define the variables dealing with the assumptions of our research.

In this research, to measure the perceived environmental uncertainty, we have used the instrument used by Gordon and Narayanan (1984). Precisely, the measurement of this variable consists of ten questions, to indicate, on a 7-point Thurstone scale, the predictability of the company's external environment related to competition, to new products in the industry, to the economic and technological environment, to the predictability of competitors, to the predictability of the customers' preferences, to the regulatory constraints and to the emergence of scientific discoveries.

The variable «relational capital with suppliers» is measured on a 7-point Likert scale from 1 = strongly disagree to 7 = strongly agree, with five items relating to close interaction, mutual trust, respect, friendship and reciprocity between the company and its most important suppliers (Lawson, Tyler and Cousins, 2008; De Clercq and Spaienza, 2006; Villena, Revilla and Choi, 2010).

The measurement of the variable "generic strategy of cost domination" consists of seven questions to indicate, on a 7-point Thurstone scale going from 1 = no emphasis at all, up to 7 = very high emphasis, the focus on the strategic priorities of cost minimization by the firm (Langfield-Smith, 1997; Porter, 1980).

To measure the variable "organizational architecture", we referred to the work of Bouslama (2010). This variable is a construct of second order at three dimensions. The first dimension, which is the decentralization of the decision rights, is measured, on a 7-point Thurstone scale, from 1 = no delegation, to 7 = full delegation, by the size of the delegation of four classes of decision-making rights to the appropriate managers and subordinates. The second dimension, which relates to the mechanisms of professional performance evaluation, is measured, on a 7-point scale ranging from 1 = never, to 7 = very often, by the frequency of the use of a set of these mechanisms in the company. Finally, the third dimension, which is about the incentive and reward systems of the subordinates, is measured, on a 7-point scale ranging from 1 = never, to 7 = very often, by the frequency of the use of a set of incentive systems in the company.

Regarding the variable "company size", we have measured it by the number of employees which mean the same thing in all the countries (Swamidass and Kotha, 1998). We chose, in particular, the classification of Lampercht (1996) which divides companies into five sub-classes according to the number of their employees.

Finally, the variable "use of new management accounting practices" is measured, on a 7-point scale ranging from 1 = never, to 7 = very often, by the frequency of the use of practices of calculating the strategic cost by the ABC, of the financial and non-financial indicators of performance of the balanced scorecord and of the financial and accounting benchmarking (comparative analysis) (Abdel-Kader and Luther, 2008).

The description of the sample:

The studied sample contains 100 industrial Tunisian companies operating in different business areas and spread over various Tunisian regions, such as Tunis, Ben Arous, Nabeul, Zaghouan, Sousse, Monastir, Gabes, Sfax and Beja.

Data collection:

The data collection tool for our investigation is a questionnaire conducted through a face to face interview and via the Internet. The questionnaire is composed mainly of closed multiple choice questions and subsidiary open questions on the overall characteristics of the company.

This questionnaire is related to three axes. The first is the presentation of the company profile. The second deals with the frequent use of new management accounting practices by the company. The third is about the contingency factors.

The questionnaire was tested before being communicated to the surveyed firms. To do so, we have conducted an exploratory pre-enquiry in some companies belonging to our sample. The information gathered during this pre-investigation was used to assess the relevance of the issue, the adaptation of different measures to the Tunisian context and therefore develop the final questionnaire.

The data collection phase enabled us to gather 100 questionnaires. More precisely, out of 300 questionnaires sent through the Internet, we could recover only 18 with a response rate for this type of data collection in the order of 6%. However, for the data collection through a face-to-face interview, we distributed 150 questionnaires and could get only 96 questionnaires with a response rate of around 64%. The observations which were not completely filled were omitted leading, which reduced the number of observations from 96 to 82.

The methods of data analysis:

First, we used a Principal Component Analysis to make sure that the selected items produce a perfect representation of the constructs in question.

Then, we use the software of AMOS 18 to perform a confirmatory factor analysis to determine the internal consistency and convergent and discriminant validity of the scales. Second, a second-order confirmatory analysis is used to establish the internal consistency of the first-order factors measuring the construct of "organizational architecture". During the second-order CFA, the remaining items from the CPA phase are used as indicators of first-order factors, which are, in turn, used as indicators of the second-order construct "organizational architecture".

Finally, we applied a multiple linear regression on the resulted factors in order to validate or invalidate the hypothesis of our research.

ANALYSIS OF THE RESEARCH RESULT INTERPRETATION

Before going about the result interpretation, it is necessary to purify our measures and try to improve the interpretation of results.

The presentation of the results of purification of the measures:

The purification of the measurement instruments was carried out through two separate tests. The first test of dimensionality was performed with a factor principal component analysis (PCA) of the measurement scales of the variables. The second test, which is that of the reliability analysis, was performed on the items kept from the first analysis using Cronbach's alpha (Churcill, 1979; Nunnally, 1978).

Purification analyzes have established the dimensionality of the measurement scales of the

Table 1. Validation of the variable measurement scales

Research variables	Code	Dimensionality and the % of explained variance	Internal validity (Cronbach α)
Environmental perceived uncertainty	PEU	One dimension 65,515% (1.965)	0,735
The relational capital with suppliers	RCSR	One dimension 74,274% (2.971)	0,882
The generic strategy of cost domination	GSCD	One dimension 65,181% (1.955)	0,781
The organisational architecture	OA Décentralizationetmep Mecevperf Incitsys	Three dimensions 24,81% (3.722) 20,412% (3.062) 15,169% (2.275)	0,868 0,940 0,789
The company size	Size	Measured according in number of employees	Measured according in number of employees
The use of new management accounting practices	UNAMP	One dimension 66,888% (2.007)	0,741

variables used in the research model. In addition, the PCA performed on these variables, helped us to identify four research variables with one dimension with a satisfactory restored total variance (50%) and thus validate the structure of the original variables (see Table 1).

However, it is noted for the construct of "organizational architecture" that Bouslama (2010) identified a factor relating to the decentralization of decision rights, two factors related to mechanisms for evaluating the performance and two other factors relating to systems of incentives and rewards. Similarly, in this analysis, we identified two factors related to incentive and reward systems. But, the second factor was eliminated from the analysis due to unsatisfactory reliability. However, we identified a single factor for mechanisms of evaluating the performance while the second factor overlapped with items of the dimension of the decentralization of decision rights to form together one factor named "decentralization of decision rights and mechanisms of assessment of the performance".

The presentation of the results of confirmatory factor analysis:

A confirmatory factor analysis (CFA) was also conducted on the measurement scales. This analysis shows that all variables have a fairly good internal consistency (**ρ Jöreskog > 0.7**), acceptable convergent validity (ρ**vc >** 0.5) and a strong correlation of items in their common factor and critical ratio values higher than 1.96 (see table 2).

The CFA also confirmed the three-dimensional structure with critical ratio> 1.96 (values that substitute the t-student) of the construct "organizational

architecture". In addition, all the items are strongly correlated with their Common factors and the squared multiple correlations are acceptable.

A second-order CFA was also applied to the three dimensions of the construct "organizational architecture" after checking the conditions of passage of first order factors to a second order construct (the existence of a strong correlation between the first-order factors and the comparison of the first-order model to that of the second-order in terms of quality of fit to the data through the calculation of the Target Coefficient Index (TCI)). This analysis confirmed the strong contribution of the three-dimensions to a single second-order construct which is "organizational architecture". The measurement model showed a fairly good quality of fit (see Table 3).

These tests help us then check our assumptions by using the relevant data.

The internal consistency of the global measurement model and its convergent validity is verified. Indeed, the rho of Jöreskog and the coefficients of rho of the convergence of the global measurement model are satisfactory overall. In addition, discriminant validity is also verified since all the squared correlation coefficients are lower than the extracted average variance.

Interpretation of regression results:

After identifying a factor score for each variable of our study, we present the test results of our hypotheses which state that there is a positive and significant effect between the contingency factors and the use of new the management accounting practices.

Using the multiple linear regressions is possible only after verifying the application conditions. To do so, we set up the linearity test of the model, the tests of no

Table 2. The CFA results of the measurement scales

Research Variables	Std.Coeff	SMC	c.r (t)
Perceived Environmental Uncertainty (ρ Jöreskog= 0.744 ; ρvc= 0.497)			
- The extent of stability / dynamic of technological environment	0.838	0.379	7.323
- The predictability of market activities of competitors	0.639	0.408	5.869
- The frequency of emergence of new scientific discoveries in the industry	0.616	0.702	5.687
The following of Table 2 :			
Research Variables	**Std.Coeff**	**SMC**	**c.r (t)**
Relational capital with suppliers (ρ Jöreskog= 0.869 ; ρvc= 0.630)			
- A mutual trust at multiple levels.	0.588	0.819	6.101
- A mutual respect at multiple levels.	0.769	0.762	8.73211
- A mutual friendship at multiple levels.	0.873	0.592	0.374
- A mutual reciprocity at multiple levels.	0.905	0.345	10.924
X^2/ddl=0.879 (≤5) ; GFI= 0,996 (>0.9) ; AGFI= 0.956(>0.9); TLI=1(>0.9); CFI= 1 (>0.9); RMR= 0,013 ; RMSEA= 0,000; BIC=24.325 Ms (46.052)			
A generic strategy of cost domination (ρ Jöreskog= 0.860 ; ρvc= 0.674)			
- Reduced costs of production	0.676	0.688	6.110
- Reduced selling prices	0.576	0.332	5.341
- Minimization of variable costs per unit by the effect of the experience curve (volume effect).	0.830	0.456	7.192
The use of new management accounting (ρ Jöreskog= 0.860 ; ρvc= 0.674)			
- The calculation of strategic costs by ABC.	0.513	0.263	4.802
- Financial and non-financial indicators of performance of the balanced scorecard.	1.015	1.031	8.214
- Financial and accounting benchmarking.	0.636	0.405	5.775
The following of Table 2 :			
Research Variables	**Std.Coeff**	**SMC**	**c.r (t)**
Organizational architecture			
The decentralization of decisions rights and mechanisms for evaluating the performance (ρ Jöreskog= 0.880 ; ρvc= 0.514)			
- The rights of initiatives to generate proposals for the use of resources and structuring of contracts.	0.711	0.498	7.869
- The rights of ratification for the choice of initiative decisions to implement.	0.622	0.382	6.608
- The rights of implementation of ratified decisions.	0.722	0.519	8.034
- The percentage of realization of objectives fixed.	0.651	0.433	6.998
- The number of new customers.	0.687	0.479	7.517
- Customer satisfaction.	0.871	0.764	10.734
- The total margin realized.	0.731	0.540	8.167
Mechanisms for assessing the professional performance (ρ Jöreskog= 0.942 ; ρvc= 0.844)			
- The collective performance.	0.921	0.842	11.981
- Satisfaction of the hierarchy.	0.921	0.851	11.892
- The level of involvement of the subordinate.	0.910	0.824	11.638
Individual Incentive and reward systems: (ρ Jöreskog= 0.793 ; ρvc= 0.563)			
- A promotion.	0.657	0.435	6.628
- A bonus or an individual premium.	0.823	0.768	8.541
- A premium for a challenge.	0.762	0.581	7.836
X^2/ddl=1.596 (≤5) ; GFI= 0,872 (>0.8) ; AGFI= 0.810 ; TLI=0.938 ; CFI= 0,952 (>0.9) ; RMR= 0,145 ; RMSEA= 0,078; BIC=235.492 Ms (419.070)			

Table 3. The Second- order CFA results of first-order factors of the construct "organizational architecture"

First- order factors	Std.Coeff.	SMC	c.r (t)
- The decentralization of decisions rights and mechanisms for evaluating the performance	0.677	0.459	4.405
- Mechanisms for assessing the professional performance	0.728	0.530	5.967
- Individual Incentive and reward systems	0.782	0.612	5.399
X^2/ddl=1.596 (≤5) ; GFI= 0,872 (>0.8) ; AGFI= 0.810 ; TLI=0.938 ; CFI= 0,952 (>0.9) ; RMR= 0,145 ; RMSEA= 0,078; BIC=235.492 Ms (419.070)			

Table 4. Results of multiple linear regression model

Explanatory Variables	Coefficients	T- Student	Significance
Constant	-2.441	-4.235	0.000**
Perceived environmental uncertainty	0.241	2.702	0.008*
Relational capital with suppliers	0.371	3.057	0.003*
Generic stratgy of cost domination	-0.175	-1.531	0.129
Organizational architecture	0.012	0.130	0.897
Firm size	0.373	4.425	0.000**
R^2= 33.6% R^2 ajustée=30.1% F=9.523 Sig 0.000			

  * significant at 5%
  **significant at 1%

multicollinearity between the explanatory variables, the residual normality, the absence of autocorrelation between the error terms and the error homoscedasticity.

The results show that the conditions embodied in the regression method are checked. Therefore, we can interpret the overall quality and the regression coefficients.

The presentation of the model to be tested:

The next multiple linear regression model is used to test our hypotheses:

$UNMAP = β_0 + β_1 (PEU) + β_2 (RCSR) + β_3 (GSCD) + β_4 (OA) + β_5 (size) + ε$

With :
UNMAP: the dependent variable to be explained and which corresponds to the use of the new management accounting practices by a company;

PEU, RCSR, GSCD and size: the explanatory variables that correspond to the perceived environmental uncertainty, to the relational capital with suppliers, to the generic strategy of cost domination, to the organizational architecture and to the company size measured by the number of employees.

ε: error term

$β_0$, $β_1$, $β_2$, $β_3$, $β_4$ et $β_5$: the determination coefficients (weight) of the constant and of the independent variable in explaining the dependent variable.

Result interpretation:

The empirical results showed that 33.6% of the variation in the use of new management accounting practices is explained by the contingency variables of our research. Fisher's statistics (F), which is equal to (9,523), confirmed the good quality of the model significance at a level below 1%. Therefore, the strength of the explanatory model appeared satisfactory. Hence, we reject the null hypothesis to state that the regression as a whole is significant and that the model is explanatory to the studied phenomenon.

Concerning the significance of the independent variables, we notice that the variables "perceived environmental uncertainty, relational capital with suppliers and size of the company" are statistically significant. By contrast, the variables "organizational architecture and generic strategy of cost domination" are not.

Table 4 above shows the model explanatory strength, the beta coefficients, the Student test, the F statistics and

its significance, and a summary of the regression results on the set of the explanatory variables of this model.

Analysis of the impact of the perceived environmental uncertainty on the use of the new management accounting practices (H1):

The first hypothesis (H1) tests whether the perceived environmental uncertainty has a positive effect on the use of the new management accounting practices.

A review of statistical tests showed that this variable has a positive and significant effect on the change in using the new management accounting practices. Indeed, an examination of causal relationships showed that the coefficient associated with the link between the perceived environmental uncertainty and the use of the new management accounting practices was positive (0.241) and statistically significant (t= 2.702 with p = 0.008). This corroborates the predictions of hypothesis (H1).

These results thus support those found by Gordon and Narayanan (1984), Chenhall and Morris (1986), Gul and Chia (1994), Chong and Chong (1997) and Abdel-Kader and Luther (2008).

From these results, we can deduce that the increasing in environmental uncertainty perceived by firms affects their need for financial and accounting information more open to the outside and more future oriented, which may be provided by the new management accounting practices to help control the environmental uncertainties and make the best decisions concerning the cost minimization and the improvement of the financial, non-financial and accounting performance.

Analysis of the impact of the relational capital on the use of the new management accounting practices (H2):

The second hypothesis (H2) states that the relational capital with the suppliers has a positive effect on the use of the new management accounting practices of companies.

An examination of the causal effect showed a positive and significant relationship between relational capital with suppliers and the use of new management accounting practices.

In particular, relational capital with suppliers was positively (β = 0.371) and significantly (t = 3.057, p = 0.003) related to the use of new management accounting practices.

This means that relational capital with suppliers has a positive and significant effect on the level of use of new management accounting practices of firms. This corroborates the predictions of O'Regan et al. (2005), Villena, Revilla and Choi (2010) and Degraeve and Roodhooft (1999). For this, the hypothesis (H2) is confirmed.

Thus, we can conclude that in our sample, the more the company accumulate relational capital with suppliers, the more it uses the new management accounting practices in order to overcome the problems of control and that of opportunism or of the appropriation of value that may arise due to a reduced risk taking in a relationship with suppliers based on trust.

Analysis of the impact of the generic strategy of cost domination on the use of the new management accounting practices:

The third hypothesis (H3) states that the generic strategy of cost domination has a positive effect on the use of new management accounting practices.

Statistical tests showed that the generic strategy of cost domination has a negative effect on the use of new management accounting practices (beta = -0,175) and not significant (t = -1,531 and p = 0,129). These results refute the third hypothesis (H3).

Our results refute the findings of Abdel-Kader and Luther (2008), Jermias and Gani (2004) and Moores and Chenhall (1991).

Conversely, they corroborate the previous results found by Jarvanpää (1998) who reported that Shank and Govindarajan (1993) and Simons (1990) found that the traditional management accounting practices are connected to the strategy of cost domination while the new ones are connected to the differentiation strategy (cited by Jarvanpää, 1998).

In this same context, Baines and Langfield-Smith (2003), Chenhall and Langfield-Smith (1998) and Cadez and Guilding (2008) report a greater use of management accounting practices such as benchmarking, ABC and non-financial measures of performance in firms that stress the differentiation strategies, while the traditional practices may be suitable for companies with a cost domination strategy.

Hence, we can see that the new management accounting practices are used by the companies of our sample regardless of the generic strategy followed by the company.

Analysis of the impact of the organizational architecture of the use of the new management accounting practices:

Hypothesis (H4) is used to check whether the organizational architecture has a significant effect on the use of the new management accounting practices.

A review of statistical tests showed that this variable has a positive but insignificant effect on the use of new management accounting practices. Indeed, an examination of causal relations showed that the coefficient associated with the link between organizational architecture and the use of new manage-

ment accounting practices is positive (β = 0.012) but not statistically significant (t = 0.130, p = 0.897).

These results do not support neither the predictions of the hypothesis (H4) nor the results found by Gul and Chia (1994), Chenhall (2003), Abdel-Kader and Luther (2008), Baines and Langfield-Smith (2003) and Wegmann (2008).

Thus, we can deduce that the firms in our sample tend to use new management accounting practices regardless of their organizational architecture.

Analysis of the impact of the company size on the use of the new management accounting practices:

Hypothesis (H5) is used to test whether the company size has a positive effect on the use of the new management accounting practices.

A review of the statistical tests showed that this variable has a positive and significant effect on the use of new management accounting practices. Actually, an examination of causal relationships showed that the coefficient associated with the link between the company size and the use of the new management accounting practices is positive (0.373) and statistically significant (t= 4.425; p = 0.000). This corroborates the predictions of hypothesis (H5).

These results corroborate those found by Joshi (2001), and Haldma Lääts (2002), Al-Omiri and Drury (2007), Cadez and Guilding (2008) and Abdel-Kader and Luther (2008).

Therefore, we can deduce that the company size is a contingency factor that can explain the variation in using the new management accounting practices between the companies of our sample. In fact, small businesses do not seek to use these new practices since their activities are quite simple. However, large companies are more accessible to the use of these practices due to their most complex activities and largest financial and human capacities that enable them an easier use of the new management accounting practices.

Taking account of the results showed in our study, our model can be written as:
UNMAP = -2.441 + 0.241*(PEU) + 0.371*(RCSR) +0.373*(size)

CONCLUSION

The new management accounting practices are an important part of the contemporary management accounting system of which the need of their use is more and more accentuated.

However, the use level of the new management accounting practices varies between companies. In an attempt to explain and justify this variation, we applied, in this chapter, the contingency theory which states that this variation is due to many contingency contextual factors.

In fact, we examined the effect of five contextual variables on the use level of the new management accounting practices. In particular, these variables are related to the perceived environmental uncertainty, the relational capital with suppliers, the generic strategy of cost domination, the organizational architecture and the company size.

Indeed, examination of the statistical tests show that the explanation of the variation of the dependent variable (the use of new management accounting practices) is mainly due to the perceived environmental uncertainty, relational capital with suppliers and the company size. More specifically, the large companies that receive a high degree of environmental uncertainty and characterized by a high level of relational capital with suppliers are more accessible to the use of new management accounting practices.

However, the variable "organizational architecture" and "generic strategy of cost domination" have only little influence on "the use of new management accounting practices."

Concerning the insignificant relationship between organizational architecture and the use of new management accounting practices, it can be partly explained by the fact that the component of the organizational architecture that is the system of evaluation and monitoring performance can be used as a substitute or as a compensatory mechanism to the use of new management accounting practices to facilitate the evaluation of the performance and reduce control problems associated with information asymmetry between the organization's staff and that associated to opportunism.

Regarding the variable "generic strategy of cost domination", its effect may not be significant due to the fact that companies that follow this strategy prefer the use of traditional management accounting practices that are mainly based on the cost determination and financial control in order to put costs under control and reduce them.

Future researches seem to be relevant if they could deepen our research topic on a larger sample while considering other factors such as in information and communication technology, the stock exchange listing, the ISO 9001 certification, etc.

Besides, the study of the direct and indirect effect of these contingency factors through the use of the new management accounting practices on the financial performance of the company is an interesting future research area.

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