

Costing Practices in the Furniture Industry in Santa Catarina, Brazil

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Abstract

This study aims to verify how costing practices are employed in furniture manufacturers in the cluster of São Bento do Sul, Santa Catarina, in southern Brazil. It is a descriptive research study (survey) whose data were collected by means of applying a questionnaire to people in charge of business cost management. The research involved 25 of the 73 companies selected. The main results point to the use of the methods of absorption costing, variable costing, and RKW costing. As to the purpose, it appears that the costing systems are used for management aims, such as reducing costs and making decisions. Furthermore, the results indicate that micro-enterprises and small businesses have difficulty in controlling waste and allocating the expenses of small items for the efficient management of their costs, while medium-sized companies have specific difficulties that point to problems related to the need of internal control and improvement of information systems in order to develop better cost management. The study allowed the understanding of how costing methods are used by the furniture industry in the cluster of São Bento do Sul and what difficulties are faced by these companies when managing their costs.

Keywords: costing methods, costing practices, furniture industry

1. Introduction

The highly competitive environment in which companies are inserted leads them to improve their administrative practices, to make their processes increasingly more efficient, or at least, sustain themselves in the market in which they operate. Irrespective of their size or sector of activity, companies develop management alternatives that, sometimes, point to matters related to quality, production, costs and other practices aimed at improving outcomes.

In general, the efficiency of practices in companies is conditioned by the good work of professionals while managing the enterprise. They are professionals whose characteristics match the entrepreneurial profile, for example, the ability to take risks, sense of opportunity and knowledge of the branch of activity (Kepner & Tregoe, 1998). However, these are traits of a self-fulfilling personality that do not usually ensure that this professional has sufficient managerial knowledge to guarantee the success of the enterprise.

Management difficulties often occur in micro-enterprises and small businesses, which are more vulnerable to changes in the economic environment, usually as a result of little management capacity and difficulty in training labor. However, with the increase in new product releases, they are investing in the acquisition of machinery and equipment, as well as in research, development and training of staff (Brazilian National Confederation of Industry (CNI), 2006).

One of the sectors of the economy that consists predominantly of micro-enterprises, small business and medium-sized companies is the furniture industry, whose characteristics include the intensive use of labor (Gorini, 1998). This underscores the role of this industry as a source of employment and distribution of income in Brazil. Although furniture manufacturers are found throughout the Brazilian territory, most of them are concentrated in a few states, mainly in the south and central regions of the country, especially in the states of São Paulo, Rio Grande do Sul, Santa Catarina, Paraná Minas Gerais and Rio de Janeiro (Ferreira & Gorayeb, 2008).

In the state of *Santa Catarina, Brazil*, in Northern Plateau, the towns of São Bento do Sul and Rio Negrinho are standouts, with the highest amount of furniture manufacturers. Mostly formed by small and medium-sized companies, this cluster has the characteristic of exporting industry. In 2012, it ranked 3rd place in the Brazilian

ranking of furniture export (Industry Federation of Santa Catarina (FIESC), 2013). Coelho and Emerenciano (2009) add the neighboring town of Campo Alegre to the other two as a component of the furniture cluster of São Bento do Sul.

These enterprises have undergone profound changes in the first five years of the 1990s, when the trade liberalization of the Brazilian economy and the domestic recession pushed them for new strategies, such as re-engineering of labor, modernization of industrial plants and forwarding production to the foreign market (Pereira, 2009). Changes in operational structure, as a result of increased competitiveness and technological advancement, cause changes in the behavior of business costs, which should be understood by managers so that they can define organizational strategies better (Richartz & Borgert, 2013).

In this environment, Padoveze (2013, p. 9) highlights that cost accounting “is one of the best and most used business management tools” (our translation), and it is intended to support managers and business managers in making decisions based on controls of the reports provided, with standards, targets or budgets and other forms of estimation (Martins, 2010; Padoveze, 2013).

Thus, this study has been motivated by the socioeconomic representativeness of the furniture sector in the state of Santa Catarina, and the need for improved management techniques such as cost accounting. In this context, delimiting the scope of research, this study aimed to answer the following question: *How are costing practices used in the furniture industry in the cluster of São Bento do Sul, Santa Catarina, Brazil?*

The general objective of this research study is to check how the costing practices are used in the furniture industry in the cluster of São Bento do Sul, *Santa Catarina, Brazil*, and the specific objectives are to (i) identify the general characteristics of the companies, (ii) verify aspects that affect cost management, (iii) analyze how costs are controlled, (iv) identify which the costing methods are known and which ones are used by companies, and (v) determine what difficulties are faced by companies in cost management/control.

This study seeks to contribute to the academic environment by identifying the behavior of a group of companies in light of costing methodologies, as well as the need to study the furniture industry, which is relevant both economically and socially.

To meet the proposed objectives, this paper is divided into five sections. Section 2 makes a brief literature review on the issues underlying this research. Section 3 reports the methodology used to make the literature review, design the questionnaire and select the samples. Section 4 presents the analysis of results. Finally, Section 5 discusses the conclusions of the research, limitations and suggestions for future studies.

2. Literature Review

This section presents a discussion on the issues that underpin the study: costing methods to support decision making of organizations and the contextualization of the Brazilian furniture industry, including characteristics and specificities of furniture manufacturers.

2.1 Costing Methods to Support Decision Making

The choice of costing method that can be employed by companies to achieve the best results is a subject discussed by many proponents of the different existing costing methods (Esculier, 1997). This statement is also found in the study by Souza, Lisboa and Rocha (2003), which emphasized the evolution of Management Accounting, through the work of several researchers who have introduced specific and appropriate practices required for the management of companies.

This context lies in the fact that there is no model able meet all the needs of all companies equally (Kaplan, 1988), nor a system that can solve all problems faced by companies. For this reason, it is necessary to develop and improve them in order to meet management needs (Martins, 2010). An analysis has to be made of the specific needs and the characteristics of each company in terms of structure and costs, although the accounting models used for decision making are influenced by behavioral aspects, inspired by the everyday activities of professionals (Espejo, da Cruz, Costa, & Almeida, 2009). According to Borna (2010), cost systems can help companies with cost control by pointing out problems and unforeseen situations as well as support the company's management in decision making. The way companies use costs for making decisions about pricing, cost reduction and the study of special costs, affect the definition of the type of information that should be generated by systems (Al-Omiri & Drury, 2007).

In this sense, Souza, Lisboa and Rocha (2003), when studying “management accounting practices adopted by Brazilian subsidiaries of multinational companies”, considered that cost measurement can be performed by absorption costing, variable costing and activity based costing (ABC), while the analysis of the

cost-volume-profit ratio is best represented by the analysis of the equilibrium point, with the standard cost and the target cost used as tools for the prediction of possible or allowable costs. For Guerreiro, Cornachione Jr. and Soutes (2010), costing methods are tools of management accounting. They consider absorption costing, variable costing, standard costing and budget as traditional artifacts, and ABC, target costing, kaizen costing, just-in-time (JIT), Economic Value Added (EVA) and theory of constraints (TOC), as modern tools of management accounting.

In addition to the costing methodologies above mentioned, the literature reports more methodologies, such as RKW (*Reichskuratorium für Wirtschaftlichkeit*) “which consists in sharing not only production costs but also all company expenses, including financial expenses, among all products” (our translation) (Martins, 2010, p. 220), and the methodology of UEP-Unity of Effort Production, which is a modification of the GP method developed by Georges Perrin (Bornia, 2010), known in some countries is as UVA method-Unit Value Added (Levant & de La Villarmois, 2001) which is based on the creation and use of a homogeneous unit of measure of the resources invested in the company’s production (Levant & de La Villarmois, 2001; Bornia, 2010; Martins, 2010).

In general, the literature contains studies that analyze the behavior of costs in certain sectors of the economy (Richartz & Borgert, 2013) and also studies that refer to practical application as a tool for planning, control, support for decision making, with the adaptation of costing systems with hybrid methodologies to deal with the specificities of each company (Borgert, Borba, & Silva, 2005). This contributes to understanding the need for studies about costing practices in different segments, sectors and company types.

2.2 Previous Research

Two research studies, whose context is similar to that of the present study, verify the way costs are managed by companies. The first one refers to the costing practices in the hardwood component industry in North America, while the second checks the costing methods in different industries in the state of Santa Catarina. Andersch, Buehlmann, Wiedenbeck and Lawser (2011) conducted a study in 2010 about costing practices in the North American hardwood component industry. This research involved 74 companies in the United States of America and Canada. The results point to the traditional system of costing (absorption) as the most used by most companies (74%). As for purpose, the costing systems serve mainly to financial reports (59 respondents), tax purposes and inventory valuation (47 each) and for calculation of product costing (41 respondents), less than half of population uses costing systems for operational information (23 companies) and the minority for strategic information. Also, there is a deficiency in the following aspects: operationalization, availability date, accurate and useful information for management purposes, and customization.

Coronetti, Beuren and Sousa (2012) investigated the costing methods used by 35 of the 250 largest industries in the state of Santa Catarina in terms of number of employees, as reported by FIESC (2013). The results showed that the method of absorption costing is the most used (24 companies), either solely or jointly with another costing method. The results also showed that respondents take into consideration “the best calculation of product costs” and “provision of more relevant information for decision making” when they decide on the costing method to be used, and that spreadsheets stand out among the different software tools.

Likewise, the present study intended to verify how costing methods are employed by furniture manufacturers located in the furniture cluster of São Bento do Sul, *Santa Catarina, Brazil*, in favor of the relevance of cost information for companies, its variety and quality in the use of methods, and the fact that they are subjects regularly discussed in the accounting literature (Andersch, Buehlmann, Wiedenbeck, & Lawser, 2011).

2.3 Characteristics of Brazilian Furniture Industry

Dispersed throughout the Brazilian territory, the furniture sector is more concentrated in the central and south regions, and it is typically organized in regional clusters (Silva & Santos, 2005). According to data from the Brazilian Agency for Industrial Development-ABDI (Ferreira & Gorayeb, 2008), based on the 2008 Annual Social Information Report-RAIS, the main furniture clusters in Brazil are located in Bento Gonçalves (RS), São Bento do Sul (SC), Araçuaia (PR), Big São Paulo (SP), Mirassol (SP), Votuporanga (SP), Uba (MG) and Linhares (ES). In 2011, data from the Furniture Industry Association of the State of Rio Grande do Sul-MOVERGS (2012) added the areas of Curitiba (PR), Greater Belo Horizonte (MG), Greater Rio de Janeiro (RJ) and Lagoa Vermelha (RS) in the list of Brazilian furniture manufacturing clusters.

Formed predominantly by small and medium-sized companies and characterized by intensive use of labor, companies in this industry are mostly family-run businesses (Kroth, Lopes, & Parré 2007). According to 2011 data, the sector has 16.5 thousand companies, which account for the production of BRL 35.1 billion and totaling US\$ 743 million in exports to many countries worldwide (MOVERGS, 2012). These figures, when compared

with data from 1997 (US\$ 391 million in exports), demonstrate a significant growth of this industry as a result of opening markets worldwide (Gorini, 1998).

In Brazil, annual gross operating revenues measure the categorization of companies to qualify their size. The National Bank for Economic and Social Development-BNDES (2013) classifies micro-enterprises as those whose annual turnover is less than or equal to BRL 2.4 million. Small businesses have to maintain the highest turnover of BRL 2.4 million and less than or equal to BRL 16 million, while the turnover of medium-sized companies is more than BRL 16 million and less than or equal to BRL 300 million. The turnover of large companies is above BRL 300 million per year.

In the state of Santa Catarina, Brazil, micro-enterprises and small businesses are very important socially because they employ more than 25 thousand direct workers (2011 data), composed of 8,944 workers in micro-enterprises, 8,694 in small businesses, 7,765 workers in medium-sized companies, and 1,256 workers in large companies (FIESC, 2013).

The furniture manufacturing cluster of Sã Bento do Sul, located in the micro-region of the same name, is formed by the towns of Rio Negrinho, Sã Bento do Sul and Campo Alegre (Coelho & Emerenciano, 2009). Data from FIESC (2013) reported that the towns of Sã Bento do Sul and Rio Negrinho have the highest concentration of furniture manufacturers in the state of Santa Catarina, and they export their products; in 2012, they ranked 3rd in the national ranking of furniture exports, ahead of the furniture industry located in the western region of the state (FIESC, 2013).

However, outdated organizational and management aspects are observed in furniture manufacturers from Santa Catarina (Pereira, 2009). While most micro-enterprises and small businesses bear characteristics of craftsmanship, the ability to invest in new machinery and equipment is restricted to a few medium-sized and large companies (Ferreira & Gorayeb, 2008). Anyway, new manufacturing technologies, globalization, customer demands for innovations, regardless of company size, are responsible for the need for improvement of costing systems (Al-Omiri & Drury, 2007).

3. Methodology

This section describes the methodological procedures used to conduct this research, the classification of the study, aspects of the literature review, design of the questionnaire and the sample selection process.

3.1 Research Classification

Descriptive surveys are conducted in order to describe the characteristics, properties or relationships of a given population (Cervo & Bervian, 1996; Gil, 2002; Richardson, 2012). Thus, with regard to the aim of this research, this is a descriptive with the aim of identifying, recording and to correlating the costing methods adopted by the manufacturers in the furniture cluster of Sã Bento do Sul, state of Santa Catarina, Brazil (Cervo & Bervian, 1996; Raupp & Beuren, 2006).

Regarding the approach to the problem, this research is framed as a qualitative and quantitative research. The use of qualitative typology in accounting studies is defended by Raupp and Beuren (2006, p. 92) because accounting “is a social science and not an exact science as some may think, which explains the relevance of the qualitative approach” (our translation), while Richardson (2012) believes that qualitative research explores, more appropriately, the nature of the social phenomenon being studied. Regarding the employment of quantification, this occurred during the processing and analysis of the survey data (Raupp & Beuren, 2006; Richardson, 2012). Approaching the problem in a mixed design is defended by Gray (2012), who considers that predominantly qualitative research, can benefit from combining with quantitative designs, the weaknesses of a measure can be offset by the strengths of another.

In this context, to achieve the proposed aims, a survey was used as the technical procedure with the application of a questionnaire, which has the advantages of providing direct knowledge of reality, economy and speed of implementation as well as the possibility of quantifying variables (Gil, 2002). To give theoretical support to the aim of this research, the review of the literature was based on information available from books, magazines, documents, sectoral research and national and international academic papers, which offered a variety of elements previously discussed on the subject (Gil, 2002).

3.2 Collecting and Analyzing Data

As a procedure to collect data, a questionnaire was given to the manufacturers in the sample. The use of a questionnaire allows the researcher to collect information on characteristics and certain variables, such as opinion, interests, expectations, etc. (Cervo & Bervian, 1996; Gil, 2002; Richardson, 2012; Raupp & Beuren,

2006). The questionnaire was self-administered.

The questionnaire was designed based on other surveys on costs (Miqueletto, 2008; Machado, 2008; Coronetti, Beuren, & Sousa, 2012; Lunkes, Belli, Andruchechen, & Suave, 2013). Furthermore, the literature review and the research problem influenced the design of the questions, which were grouped into five parts: (i) identification of the general characteristics of companies; (ii) understanding of factors influencing cost management; (iii) verification of how costs are controlled; (iv) analysis of the costing methods that are known and used; and, (v) identification of the difficulties faced by the companies in the management/control of costs.

The draft questionnaire was then piloted on three companies with the same characteristics of the population, for revision and detection of problems that could arise during the application of the final questionnaire (Richardson, 2012). The three companies that participated in this stage were removed from the final survey population in order to avoid biased answers.

Then, the questionnaire was uploaded into the web tool “Google docs” and sent to the email address of the member of staff responsible for the management of business costs. Prior to that, the first contact was made by phone to request the name and e-mail address of the person—in-charge. After the questionnaires had been e-mailed, a deadline of fifteen days was set for the return of answers. When a company did not return the questionnaire within the first deadline, a new phone contact was made.

Next, the data collected were tabulated using the tools of software Microsoft® Excel®, which provided better conditions for analysis and better results for the aims defined above. It should be noted that although Google docs itself has tools for data analysis, it does not enable specific tabulations or comparison of data.

3.3 Population and Sample

This study focuses on industrial companies located in the furniture cluster of São Bento do Sul, state of Santa Catarina, Brazil. The towns of Campo Alegre, Rio Negrinho and São Bento do Sul were selected because they represent one of the most important furniture clusters in Brazil, with massive participation of small and medium-sized industries (FIESC, 2013).

The population includes companies affiliated with the unions of the respective towns. For companies located in Rio Negrinho, the listing of SINDICOM (Trade Union of Construction and Furniture Companies of Rio Negrinho) was used; it consists of 40 member companies. For companies of Campo Alegre and São Bento do Sul, the listing of SINDUSMOBIL (Trade Union of Construction and Furniture Companies of São Bento do Sul) was used, with 58 member companies.

Both unions have associated companies not classified as furniture manufacturers, e.g., service providers, furniture stores, ceramics manufacturers and other companies. Thus, 22 out of the 98 companies identified in the listings were not furniture manufacturers, and they were excluded from the initial population. The three companies that had answered the pilot questionnaire were also disregarded, which resulted in a population of 73 companies.

All of the 73 companies were contacted during the period of April 1st to June 30th, 2013, and 25 of them returned the questionnaires, a sample that corresponds to 34.2% of the population. After collection and formatting of data, analysis and considerations were made.

4. Data Analysis and Survey Results

This section reports the results obtained in the survey, as well as the analyses and interpretations of the answers from the questionnaire.

4.1 General Characteristics of the Companies

Most companies surveyed is classified as a small business (13) and a medium-sized company (9), while 2 are micro-enterprises and 1 is a large company. Only one company has a monthly turnover below BRL 30,000, while 17 of them have a turnover above BRL 250,000, including 6 companies that reported having revenues of over BRL 1 million per month. Also, a balance was observed between the companies that operate only in the Brazilian market (13 companies) and those that also operate in the foreign market (12 companies). It should be noted that 8 medium-sized companies operate in the foreign market, while 10 out of 13 small businesses only operate in the Brazilian market.

As for the profile of the owners/directors, defined in the research as the chief executive of the organization (Table 1), 17 people are found to be over the age of 50, while 7 are below the age of 50; micro-enterprises have owners/directors youngest.

Table 1. Profile of company owners/directors

Age range of owner/director of the company:					
	Micro	Small	Medium-sized	Large	Total
Below 40 years	2	0	0	0	2
Between 40 and 49 years	0	3	2	0	5
Between 50 and 59 years	0	5	3	0	8
Above 60 years	0	4	4	1	9
Not answered	0	1	0	0	1
Academic background of owner/director of the company					
	Micro	Small	Medium-sized	Large	Total
Doctorate	0	0	0	0	0
Master's degree	0	0	1	0	1
Postgraduate certificate	0	3	1	0	4
Undergraduate	1	2	1	0	4
High school	1	7	3	0	11
Basic education	0	1	2	0	3
Not answered	0	0	1	1	2

Information on the academic background of chief executives shows that most of them have finished high school; 1 person had a master's degree while 3 have basic education. It can be noticed that medium-sized companies are those with greater diversification of schooling compared with other company sizes. It is important to point out that 1 of the companies did not provide an answer for age and 2 did not answer the question for academic background of the owner/director of the company.

4.2 Aspects that Influence Cost Management

In the second part of the survey, inquiries were made to gather information on aspects that can influence cost management in companies. The first question is about how companies conduct their accounting. Most companies outsource this duty, with services provided by accounting offices. These numbers cover all micro-enterprises and small businesses. In other words, management accounting is performed separately from financial accounting, as the services provided by accounting offices "almost always have an accounting nature, but much more that of a 'forwarding agent' (bureaucratic services, guides, tax obligations, etc.)" (our translation) (Marion & Müller, 2003), which may lead to difficulties and inaccuracies in the cost management processes.

In the group of medium-sized companies, 3 of them do their own accounts while the other 6 outsource this service, as well. However, the large company reported doing its own accounts (Table 2).

With regard to academic background, by comparing the data in Table 2 with those in Table 1, it is observed that the level of schooling of those responsible for the management of business costs is higher than that of the main corporate executives. Most executives responsible for cost management (9) have an undergraduate degree, particularly in the medium-sized companies (5), while 4 owners have this level of schooling, with 1 owner in the big company. The level "postgraduate certificate" is found more often in small businesses (4) and medium-sized companies (3), while 4 owner/directors have this academic level. Still, in 1 small business, the person in charge of cost management has basic education, while the other levels of schooling, including doctorate and master's degree, are scattered among the other companies. It should be noted that the fact of whether or not the main executive is responsible for cost management was not taken into consideration.

It can also be seen that 23 owners/directors (main executive) participate effectively in the cost management process in the company. Companies where such participation does not occur correspond to the medium-sized ones, where owners have basic education, and another where the owner has an undergraduate degree.

Table 2. Aspects that influence cost management

On the accounting company:					
	Micro	Small	Medium-sized	Large	Total
Accounts done by company itself	0	0	3	1	4
Accounting outsourced	2	13	6	0	21
Academic background of person in charge of cost management in the company:					
	Micro	Small	Medium-sized	Large	Total
Doctorate	0	0	0	0	0
Master's degree	0	0	0	0	0
Postgraduate certificate	0	4	3	0	7
Undergraduate	0	3	5	1	9
High school	2	5	1	0	8
Basic education	0	1	0	0	1
Does the Director/Owner of company participate effectively in cost management?					
	Yes			No	
	23			2	
Which program (software) or technology is used by the company for cost management?					
	Microsoft® Excel®	No program is used	Microsoft® Excel® with another system	Other	
Micro	1	1	0	0	
Small	7	3	0	3	
Medium-sized	6	0	1	2	
Large	1	0	0	0	

Another factor that influences cost management of in the companies surveyed is information technology (software). The use of Microsoft® Excel® spreadsheet is prevalent in 15 companies, which agrees with studies conducted in other types of companies in the state of Santa Catarina (Coronetti, Beuren, & Sousa, 2012). The choice for custom systems was made by 5 companies and only 1 makes use of Microsoft® Excel® and an ERP system together. However, 1 micro-enterprise and 2 medium-sized companies do not use any kind of computer system.

4.3 Cost Management

In the third section of the questionnaire, cost management was assessed. When asked about the frequency of cost reviews, no standard was observed among companies, regardless of size. Nevertheless, all of them perform cost reviews at any given period of time.

Table 3 shows that, in addition to companies that review costs in certain periods, 3 companies review their costs in other periods, namely: daily monitoring of cost variation through an integrated system; cost update according to fluctuation in raw material prices, and; product cost estimation of the first production batch to reflect the remaining batches. Similarly, 2 companies perform adjustments to costs as they need to match up sales prices determined by the market.

The procedures used for monitoring and control of certain items were also observed. Thus, using a Likert scale, it was found that, depending on the item and the company, control or monitoring is performed more or less frequently. The cost of raw materials, the amount of raw materials used, the cost of direct labor and the mark up are the items with greater monitoring and control. While the waste of raw materials, factory overheads, taxes, administrative expenses and selling expenses receive less attention.

It was also observed that most companies (64%), when they can reduce costs, use this gain to increase their revenue, while 20% reported using the gain resulting from cost saving to improve sales prices.

Table 3. Form of cost management

Company Size	Product costs are reviewed:						
	In each product lot	Monthly	Every three months	Every six months	Annually	Another period	Does not review
Micro	0	0	0	0	1	1	0
Small	1	1	1	1	7	2	0
Medium-sized	2	4	0	0	1	2	0
Large	0	1	0	0	0	0	0

	Indicate how often the company controls and/or keeps track of the items listed below:				
	Never	Almost never	Occasionally	Almost always	Always
Cost of raw materials	0	0	1	5	19
Amount of raw materials used	1	0	4	6	14
Waste of raw materials	0	2	6	10	7
Cost of direct labor	1	0	4	5	15
Overheads (factory)	0	0	8	8	9
Taxes	0	1	2	10	12
Administrative expenses	1	1	5	8	10
Selling expenses	0	2	3	9	11
Markup	1	0	5	3	16

When the company is able to reduce the manufacturing costs of the products:			
The company uses this value to increase its profits	Selling price is also reduced	Both	Not answered
64%	20%	12%	4%

4.4 Costing Methods Known and Used

The fourth section of the survey collected information on the costing methods reported in the literature. Respondents were asked about their knowledge and application of the most popular costing methods, as shown in Table 4. Initially, it is noted that two companies (8% of respondents) are not familiar with any costing methods referred to. These two respondents represent a micro-enterprise and a small business. It should be noted that the survey respondents are in charge of cost control in the companies, and 3 of them failed to answer this question. Also, as they had the option to mark more than one answer in items related to knowledge about a specific costing method, the sum of the frequencies is different from 100%.

Then, it can be noted that the method of absorption costing is the better known by 76% of respondents; however, is not the most frequently used, as it is the choice of 16% of companies. It is observed that most companies (28%) have a preference for the variable costing method (known by 64% of respondents), unlike the research results of Coronetti, Beuren and Sousa (2012), which point to the predominant use of the absorption costing method.

The respondents justified their preference for the variable costing method with the fact that they believe in the apparent ease of implementing it, identified as the most prominent factor. Also, it was pointed out clearly that its users must view the cost structure of the company, so that the value of labor can be easily incorporated into the products and, finally, because of internal corporate culture. In contrast, companies that prefer the absorption costing method believe that this method provides increased reliability and speed in collecting the data, and the respondents stated that this is the best method for the furniture industry because of the high amount of products that are manufactured. One respondent reported that they use this method because they are familiar with it and know how to use it, while another has a software program that uses this method. On the other hand, there was also the imposition of the board of the company, which made the decision to use this method.

Table 4. Costing methods known

Which of these costing methods do you ...	Know?	Use?
Absorption costing method (or methods of cost centers)	76%	16%
Method of variable or direct costing	64%	28%
Method of Unity of Effort Production-UEP (GP method)	48%	4%
ABC method - activity based costing	44%	8%
RKW costing - ownership of all costs (costs and expenses) for products	40%	16%
Does not know any of these costing methods	8%	
Hybrid system		12%
Another method		4%
Not answered		12%

Does the company calculate the mark up?		
Yes	No	Does not know what it is
14	8	3

The method of Unity of Effort Production-UEP (or GP method) is known by 48% of respondents and used in 4% of the companies. However, the company that uses it chose not to inform the reasons for this preference. Likewise, the respondent stated that they only update the values of raw materials and cannot tell if this cost control falls into any of the costing methods that were presented during this research.

The ABC method is known by 44% of respondents and used by 8% of companies, which believe in its power to assist in making decisions. However, one respondent stated that when there is difficulty using the ABC in occasional failure in tracking costs, they change the method and use absorption costing for cost control.

The RKW Costing is known by 40% of respondents, and it is used in 16% of companies that have bought and configured the software for this purpose, due to the large amount of products manufactured, which makes it difficult to estimate more detailed incorporation of costs into products.

It can be seen that 12% of the companies reported the use of hybrid costing systems. However, that piece of information is confusing, given that these companies claim to use the absorption costing method, variable costing and ABC together. However, they argue that the choice of method refers to the need for control, for the global vision that is provided, and for the difficulty that arises from the quantity of details needed to add costs to products.

Regarding the use of the mark up, Table 6 shows that most cost managers use this tool, which corresponds to 14 companies, while 3 of respondents do not know what mark up is.

Although in this block of questions, the companies mentioned what their main decisions are, based on cost information. It was observed that most decisions have a managerial characteristic, as they suggest at the purposes of developing sales price, making decisions for the acceptance or rejection of special requests, monitoring for cost reduction, while there are fewer decisions reported about producing internally or outsourcing certain products.

As can be seen, the lack of consensus between the respondent companies, including those of the same size, can be considered as a characteristic of management accounting. Considering there is no pre-established model to be used, each company should consider their informational needs and organizational conditions to determine the method to be applied (Espejo, da Cruz, Costa, & Almeida, 2009).

4.5 Main Difficulties in Cost Management Faced by Companies

Finally, the fifth stage of this research aimed to identify the difficulties faced by companies in their cost management, with the participation of 16 out of 25 companies from the sample. The only large company avoided answering this question. Separated into blocks according to their fiscal environment, the respondents reported their views as follows.

In micro-enterprises and small businesses, the biggest difficulty was to identify production bottlenecks, control of waste of raw material and consumption of small items, such as glue, staples, pins, sandpaper, etc. The

allocation of expenses on labor (direct and indirect) and electricity by product was also pointed as one of the difficulties, due to the diversity of products manufactured.

Moreover, items such as inefficient information gathering for management purposes, deficiency in internal controls and low quality of the information system (software) developed for commercial purposes, constant changes in tax laws and unstable production appeared less frequently. Other different difficulties were also identified for each company. One respondent stated that “to be a very flexible company, the number of projects developed for the internal and foreign market is massive, and only one person reviews the projects and draws up cost sheets”.

In a small business, the respondent admitted that “the business owner had no interest in working with computers and the costs are calculated by a member of the owner’s family, but only the basic part. So, now, he feels he should have invested in deeper knowledge beforehand, because now he cannot control the costs the way he would like because people are not interested in achieving the best for the company and they only do what is requested of them”.

Apparently, medium-sized companies have fewer problems with their management costs as they pointed a smaller amount of difficulties. Furthermore, the information that was provided is more closely related to improvements of costing systems rather than to adequacy or implementation systems as pointed out by micro-enterprises and small companies.

These difficulties were presented separately for each of these companies as follows: i) lack of incentive for the departments of the company to collaborate with controls and in the transfer of information to the cost manager; ii) the difficulty in preparing complete information; iii) lack of production controls, such as notes of machine operating hours for each product; and, iv) difficulty in keeping the cost that was predetermined for each production batch.

5. Conclusions

Due to the existing competition in the current market, the companies need to improve their management, as well as work towards being more self-sustainable and aiming at their growth, both locally and globally. Among the various tools used to manage the company, costing management can contribute to improvement in performance.

The furniture industry is a rapidly expanding economy in Brazil, operating both domestically and in foreign markets. This industry plays an important role in the economy in this country, as a labor-intensive activity, which highlights the role of source of employment and distribution of income. The furniture manufacturing cluster of São Bento do Sul is among the largest in Brazil, contributing significantly statistical data of revenue and income, and most of these industries are micro-enterprises and small businesses. Not unlike other businesses, these companies need to adopt some costing practices to manage costs and make important decisions for their growth and stability. Because of this importance, this paper aimed to verify how costing practices are used in the furniture industry in the cluster of São Bento do Sul, *Santa Catarina, Brazil*.

Among the findings, it was possible to verify that being familiar with a specific costing method is not a determining factor for its use. This option is geared towards other variables, such as the imposition of the board when, for example, buying new software, or for sheer convenience of its user or owner of the company, when he believes that a more practical method is to be used, among other reasons that may adversely affect the quality of the information generated. In other words, accounting artefacts are directly associated with the human factor that suffers behavioral influences and that can interfere with the definition of management practices (Espejo, da Cruz, Costa, & Almeida, 2009).

Regarding the aspects that influence the management of costs, first, it was observed that 21 companies have outsourced accounting that, sometimes, means companies that perform tax accounting services; in other words, accounting management occurs separately from financial accounting. Most people in charge of cost control have finished high school and achieved undergraduate or postgraduate certificate levels. And, to perform cost management, most companies use a spreadsheet (Microsoft Excel ®), which may cause errors, while some of them have a specific software program to meet their needs.

Most decisions have a managerial nature, whose objectives are: the composition of sale price, decision-making for accepting or rejecting special orders, and monitoring to reduce costs. However, the way to control costs, when it comes to frequency, is specific of each company. Since production is specific in furniture manufacturing, most companies review costs only once a year, and less frequently for companies that control and monitor their costs, especially of raw materials and mark up.

As for difficulties in cost management, micro-enterprises and small businesses point difficulty in identifying

production bottlenecks, controlling the waste of raw materials and controlling manufacturing overheads. However, most companies have distinct and specific difficulties. The medium-sized companies have greater ease in managing their costs, given that their controls are more rigorous and significantly assist in decision making.

For future studies, it is suggested that this research is replicated on a larger group of companies in the same industry and other furniture clusters to verify if the costing practices have a similar or different behavior from what was observed in this study. Another suggestion is the inclusion of practices for sales pricing taking into account the costing practices of the companies surveyed, as well as other aspects.

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