

## COMPETENCE FOR PRODUCT DEVELOPMENT MANAGEMENT IN CLOTHING FIRMS

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### ABSTRACT

The industries of clothing perform the significance role in the economic progress of several countries in the world, being some of the key industry. In the recent years, the clothing industries have shown very dynamic growth in the global production and substantial role of the economy of several developing countries. However, the development of products of clothing is focused in large corporations which are holders of brands and retail chain stores. The firms of the sector of clothing of developing countries have generally relied on the utilization of low technology for development and the size of firms is considered small and medium enterprises (SMEs). However, the SMEs of clothing that opt to develop their products within own firm and not supply the service for the large corporation face difficulties to attend the demand of the market and perform the development of their products. Thus, the objective of this survey is to investigate and analyze competencies for the management of development of products for SMEs of clothing. The technical procedure was performed by the study of the art by the method of systematic bibliography review. The study of the practice was carried out by 32 interviews with clients, suppliers and persons in charge of development of product, the supply chain of the 8 SMEs, observations of documents and utilization of technology in the process. Finally, the validation of the competencies for product development management found was performed with 22 specialists that act more than 3 years in the sector of development of clothing product. About the competencies for the product development management in SMEs achieved the integration (supplier, client, SME), speed in the launching of new products, differentiation of them, transmission and collection of information, tools and technology utilized, costs and perceived value by all persons in the development.

**Key words:** Clothing industry, product development, management competences.

### INTRODUCTION

The textile and clothing industries perform meaningful role in the economic progress in several countries in the world, in some of them are the key industry for the economy of these countries. In recent years, the textile industries, mainly of clothing had shown dynamics growth in the global production (Milašius; Mikučionienė; 2014). Nevertheless, since industrial revolution, this sector had experienced steady technology transformations. These transformations become this sector, though traditional, became more complex. Textile products can be used in several other industrial sectors, such as in an automobile sector, garments for furniture, intelligent textiles for high performance sport wear, in the combat camouflage clothes for soldiers, among other products. However, to Sen

(2008), the product of the textile sector well known and visualized is the clothing, mainly, the fashion clothing for the female customers, which requires beautifulness, differentiation and the speed to develop their products.

The firms in the clothing sector have the characteristics of products with short life cycle, with the needs to develop products and quick production process, flexible with great differentiation. Generally, are classified as producers of consumption goods, with low technology to develop and the size of the firms are considered as SMEs (Thomassey, 2010; Ciato et al., 2011). Among the countries, Brazil is one of that have the portion of the economy as the base the textile sector. Among firms of the Brazilian textile production chain 90% are small and medium size firms of clothing. This great number of SMEs of clothing making is due to the simplicity of the production process involved and also the low initial investment required in these firms. Meanwhile, just as come about in several other sectors of the economy, the surge of Asian products and large textile corporations carried through the firms of the Brazilian textile production chain to a crisis in own internal market.

In this scenery, the making of products of clothing within private label modality presented as an alternative for the surviving of these firms. In this modality of the business, retailers, brand owners and the acquaintance of the customer's needs, develop the products to be made, in the outsourcing form, by the makers or firms of clothing of developing countries. However, even utilizing the labor force of the Brazilian SMEs of clothing, the development, the brand and great portion of the profit migrates to other countries by means of this modality. Set against this reality, some Brazilian SMEs search to survive keeping in the segment of "own brand", developing and marketing their products in wholesalers shopping and retailers shops throughout the country. The purpose of these SMEs which act in the market with own brand should be to develop and make products of clothing, in partnership with suppliers, retailers and wholesalers to demonstrate in its development the culture and characteristics of the country (Kachba et al., 2012).

The product development management of clothing presents singular characteristics, such as the development of products according to the seasons of the year: spring, summer, autumn and winter. Several models of clothing are developed according to the trends of the season regarding to styles and colors, whereby causing in collections with high rate of variety of products. Several textile production chain which acts in the private label modality presents fortnightly new collections. For the time being, the Asian countries act strongly in this sector with mass production and low price of products (Teng; Jaramillo, 2006; Sen, 2008).

However, the SMEs of clothing makers that opt to develop the products within own firm faces difficulty to attend the requirements of the market and perform the activities to develop their products. Among the main difficulties are: the unqualified labor and performing several tasks within the SMEs; lack of knowledge for the product development management of clothing product; lack of financial resources for the utilization of new technologies in the product, among others. Then, the objective of this work is to investigate and analyze competences of the management to develop new products for textile SMEs.

## **METODOLOGICAL PROCESDURES**

The nature of this survey is applied as this generates the means to the development of products in SMEs. The approach of the problem is characterized as predominantly qualitative, however presents some quantitative data to validate the results. The technical procedures were performed by means

of the state of the art study, the practice and the validation of the results these procedures by the specialists. The Figure 1 illustrates the structure of methodology of this survey.

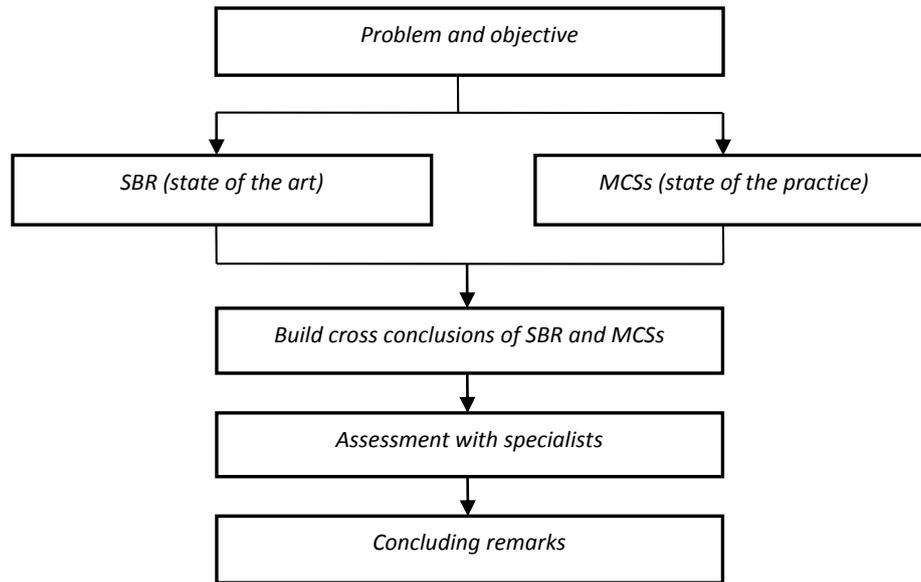


Figure 1 – Structure of the survey, Source: authors

The Systematic Bibliographic Review (SBR) is characterized in this survey as the state of the art. This consists in the process to collect, analyze, synthesize and assess the set of scientific papers aiming to build scientific-theoretical background of a given topic or the issue surveyed (Levy; Timothy, 2006).

The case study is the work of empirical character which investigates given phenomena within the real contemporary context by means of profound analysis of one or more objects of the case analysis (Yin, 2010). The Multiple Case Studies (MCSs) that constitutes the state of the practice were performed in eight textile SMEs of the southern region of Brazil, the suppliers of main raw material (textiles) and clients of the SMEs. This region has an industrial park with 840 firms of clothing and generates 10,412 jobs. The clothing firms of this region are distributed 5% in large firms and 95% SMEs. From the total of firms, 78% develop their products within the firm. To sell their products of clothing of own brand, the region has six wholesale shopping and market their products in several regions of Brazil and abroad.

It was performed the evaluation of the importance of the competencies with 22 specialists that acts in the management of the sector of development of product of clothing. They act as managers of product development process (PDP) in the firms surveyed in the MCSs and as an academic staff in learning institutions in courses forward looking for the textile sector. The evaluation of the data collected in this survey was assured statistically by means of the test of the Kolmogorov-Smirnov.

## MANAGEMENT OF DEVELOPMENT OF PRODUCT IN CLOTHING FIRMS

The surveys of Bruce et al. (2004), Teng and Jaramillo (2006), Sen (2008) and Jiang et al. (2011) pointed out the importance of the SMEs of the textile sector to create jobs and the economic activity in several regions in the world. Bruce et al. (2004) presented the importance of and the SMEs in the textile sector of the European Continent. This sector employs two million persons in firms that have in an average nineteen persons mostly in the making of clothing. The SMEs of European Continent faced limited financial resources, the lack of personnel and the time, few or none experience and

lack of confidence in the implementation of new systems. As the result, many small firms found themselves unable or not being attracted to invest in activities of marketing, design and innovation.

As the solution for this situation, the European Confederation of Textile Industries (EURATEX) since the year 2006 has elaborated projects with the aim to develop the knowledge of the SMEs in the marketing, design and innovation sectors. This sector is the basis for the development of products. The intention is outsource the productive process to countries which the labor force is cheap, develop the brand and the style of products through qualification of the manpower (EURATEX, 2011). In the production of the European SMEs highlights the products of fashion developed by small ateliers of fashion of Italy and products of luxury clothing developed in France (Brun; Castelli, 2008; Ciato et al., 2011).

The American continent is another region that presents SMEs in the phase of the making in all textile production chain. The United States itself created, in 2008, approximately 675,000 jobs in the textile sector without rely on the link of distribution (Sen, 2008). Teng and Jaramillo (2006) surveyed the main SMEs of making that supply the productive process for the North-American clothing brand and main characteristics. Main countries which have SMEs as suppliers for this brand are México, Argentina, Chile, Ecuador, Peru and Venezuela.

The partnership with American firms brings the knowledge of management and automation of the production processes of the clothing. Demand of the suppliers the quality, compliance of the specifications of the product, environmental management, among other factors. However, this development will not go beyond the realm of production, so do not take place other assets as value of the goods for final client, development of new products and brands. However, Bruce et al. (2004) state that one textile retailer holder of one brand, has the power in the hand to "make or bankrupt" SMEs suppliers of clothing making.

The Asian countries outstand regarding to the production of textile-clothing. China only produces yearly approximately, eleven billion pieces, and are mostly in the structure of SMEs (Jiang et al. 2011). The Chinese textile industry with abundant low cost work force, and holder of privileged status of raw materials as cotton and polyester, leads the advantage. Apart from that, manufactures domestically the textile machines of last generation. China has also adopted an aggressive policy to conquer external market.

This is due to low prices with exportation of large amount of standardized products. In this context, the firms of clothing worldwide present as the Brazilian SMEs which are the survivor of highly competitive market and in steady crisis. Presents the characteristics of labor force with little qualification, outdated machinery and insufficient knowledge of management of the production process, and mainly the development of new product.

The firms of clothing are, generally, SMEs and present production processes and the development with low technologies, corresponding 85% of the Brazilian textile firms. The suppliers of the main raw material, the textile of the clothing production chain (spinning and textiles of flatwork) is large firms and corresponds to 15% of firms and is responsible by 97% of the value of the annual production of the country. This is not the reality of the suppliers of textile of knitwear, mainly, for the type of product of clothing of rectilinear mesh that presents lower cost to purchase of machineries which are developed by SMEs. Even with small number of employees sometimes in the

informality, the SMEs of the Brazilian clothing corresponds an expressive amount to generate formal jobs of the sector.

The most important factor of the SMEs of the Brazilian clothing is the quantity of the labor force that employs. Reckon that these SMEs employ about one million of persons in all country (IEMI, 2011). This labor force is not concentrated only in large centers, but also, in the textile industry poles in several regions of Brazil. These textile poles bring to these regions the economic development and social, mainly, for the generation of female job that corresponds 90% of the labor force employed in this sector.

In the Brazilian SMEs of clothing the possibility of innovation has been by the utilization of the software tools as the Computer Aided Design and Computer Aided Manufacturing (CAD/CAM) and the coupling of electronic devices in the sewing machines to enhance the finishing accuracy of the clothing pieces. However, the main innovation in the clothing occurs in the development of product.

The innovation of raw material by means of partnership with suppliers of the Brazilian clothing SMEs is mandatory option for the competitiveness of development of new products. However, the disposition of cooperation between these two firms in the process of development of product is a problem. The major difficulty of the SMEs consists of not to acquire textile in large quantity, since has no money to buy exclusive textile from suppliers (Kachba, 2009).

#### **COMPARISON OF THE APPROACHES OF DEVELOPMENT OF PRODUCT MANAGEMENT IN THE CLOTHING INDUSTRY**

The clothing industry focused on products of fashion is prone to bigger changes than those observed in other sectors. Among the reasons that carry out this context are: the subjectivity and the impulse that characterize the purchase of this product; the uncertainty of the market of the fashion, according to the seasonality or the changes in the inspiration of seasons; the strong interdependence of all the links of the value chain. This interdependence makes real since producers and retailers, becoming the product of the fashion one complex product to be developed (Perreira et al. 2011).

To follow the complexity of the product of clothing of fashion is necessary to create and produce differentiated models, in short span of time, not neglecting to follow the trends of fashion for each season of the year, with the intention that the product of clothing of fashion be accessible to all population and offered by lower price in comparison to the products of renowned brands (Tyler; Heeley; Bhamra, 2006; Redfern; Davey, 2003).

The fashion is fundamental element for the process of development of product in the clothing industries as known that determine the differentiation of the product of clothing from other products. The product of fashion is designed for specific customer, according to the style of the life, in the way of wearing and the personality; inspired by the trends of fashion of each season; with fibers, threads and finishing developed technologically; and produced by modern infrastructure.

The development of products in the industry of clothing is performed by means of project of collections that cover the development between twenty and two hundred pieces of clothing. The collection differentiate from the concept of mix of product, because in the industry of clothing, apart from the variety of products one collection represents one theme and style with the determined time in the market. Sen (2008) classified products of clothing in: products of fashion with

commercial average life cycle of ten weeks; seasonal products or according to the seasons of the year with commercial life cycle of twenty weeks; and basic products, with commercial duration throughout the year. Generally, clothing for the female line is the products of fashion.

The size of the firm is affected directly by the amount of products that are developed and the number of persons that work in this development. For the SMEs, common in the textile sector, the activities of the development of product can be performed without the systematization by the proprietor or designer of fashion uniquely. In large firms of clothing industry, the designers of fashion are the part of the group of development. Products of clothing are characterized by 80% aesthetic and 20% by function. However, even the aesthetic is not only intuitive. It can be made taking the phase of product development by step and divisions of steps and sub-steps (Senh; Carroll; Cassil, 2010).

The development of raw materials until the piece of clothing has the average duration of twenty four months. This time is from the beginning with the search for the color and the composition of textiles until the production of the piece of clothing. This delay to launch new product is one of the factors that cause the competitive difference among the SMEs and the multinationals that work with the segment of private label. The firms with large number of collections and with mix of product get the partnership with suppliers to develop products with more speed. Notwithstanding, the challenge of the SMEs is to train and involve all persons of the PDP of one collection in short span of time.

The development of product of clothing of fashion in the Brazilian SMEs lacks differentiated products to compete for beauty and quality with products of renowned brands and with Chinese products with low prices. However, the primordial factor for the evolution of this in the industry of clothing is the time and the differentiation according to what is the value for the final client. So that, the competences found in the SBR by means of the search in the basis of survey found and selected 28 papers that presented survey for the development of product the management in the SMEs of clothing are presented in the Table 1.

*Table 1– Competences of management to develop products in SMEs of clothing found in SBR. Source: authors.*

<b>Competences in management of product development</b>	<b>Authors</b>
Integration	Redfern and Davey (2003), Christopher and Lowson (2004), Brun and Castelli (2008), Goworek (2010), Ciato et al. (2011), Jiang, et al. (2011), Vanathi and Swamynathan (2014)
Speed	Bruce, et al. (2004), Kincade et al.(2007), Perreira et al. (2011)
Differentiation of products	Ciato et al. (2011)
Structure and organization	Teng and Jaramillo (2006), Sen (2008)
Tools and technology	Vaagen and Wallace (2008), Young-Jin et al. (2010), Thomassey (2010), Marufuzzaman et al.(2010)

The integration for the product development management is presented by means of partnership among supplier, firm which develop the product and the retailer to create value.

- a. Speed in the PDP, mainly, with complement of collection in commemoratives celebrations;
- b. Differentiation of products to compete with bulk quantity products in the Asian market;
- c. Structured model by means of activities for the PDP in all phases and internal sectors of the firm;
- d. Integration of the persons in the PDP, by means of the utilization of technology and tools to acquire them.

Among factors not presented in the approaches of the RBS is the focus and realization in the SMEs and its characteristics. These are factors to be transformed to become the SMEs of the textile-clothing industry competitive in the present market.

### **MULTIPLE CASE STUDIES (MCSS)**

The study of multiple cases had the purpose to analyze the state of the practice of the PDP in the SMEs of clothing with own brand and confront with important points for the development of product management of clothing found in the SBRS. Table 1 presents the general data of firms that rendered the multiple cases studies.

*Table 1 – General data of the SMEs. Source: authors.*

<b>Cases</b>	<b>N° of workers</b>	<b>Product</b>	<b>Ways of commercialization</b>	<b>Average N° of products developed in the year</b>
<b>A</b>	150	Women´s fashion	Wholesale shops and representative	240 products in three collections
<b>B</b>	50	Lingerie	Retail shop and dealers	24 products in one collection
<b>C</b>	110	Clothing for pregnant	Wholesale shops, retail and representatives	492 products in three collections
<b>D</b>	130	Children´s clothing	Wholesale shops and representative	840 products in three collections
<b>E</b>	37	Lingerie	Representatives	36 products in one collection
<b>F</b>	24	Special sizes	Retail shop and representatives	210 products in three collections
<b>G</b>	44	Children´s clothing	Retail shop and representatives	600 products in three collections
<b>H</b>	117	Men´s clothing	Retail and representatives	408 products in three collections

For the analysis of the real situation of the structure of the process of development of product were analyzed the following parameters as illustrated in the Table 2.

*Table 2 – Real situation for the product development management in the SMEs of clothing surveyed.  
Source: authors*

Parameters	A	B	C	D	E	F	G	H
<b>Quantity of models developed per year</b>	240	24	492	846	36	210	600	408
<b>Collaborators in the PDP</b>	7	3	5	10	3	2	7	5
<b>Technology and tools utilized</b>	3	1	5	3	0	3	3	4
<b>Practices of DEP</b>	10	6	10	9	4	5	6	11
<b>Partnership with retailers</b>	Yes							
<b>Partnership with suppliers</b>	No	Yes						
<b>Survey with final consumers</b>	No	No	Yes	No	No	No	No	No

In the cases surveyed the group one is that presents smallest values of parameters and alternatives are the cases B and E. The reality, for the product development management of the SMEs these cases is the lack of the sector of development of product structured and formalized. Both firms that have no structured sector are firms that act in the market of lingerie, product that generally is not developed by collections and commercialize their products in retail shops and representatives. Present few variety of models and the quantity of pieces developed only one annual collection.

The group two is composed by the cases A and F. The case A has the medium range of competences in the product development management with large quantity of collaborators and few variety of products, the sales persons in this case noted the difficulty and the differentiation of models and variety of textiles in the collection. The product development management in the case F presents the reality of the sector not structured and performing its functions by the collaborators of the production and the board of directors. However, two collaborators are exclusives to perform the development of product, one designer of fashion and one machine operator that sews the prototype of pieces of clothing. This fact note activities with more organization than the cases that do not present collaborators, but not utilize technology to perform this process. The main convergence of the case of the group two is in the fact that both have medium values for the variety of models and quantity of activities performed in the development of products management.

The SMEs in the cases H, C and G are classified in the group three with plausible variety of models by collection. The case G develops 600 models in one year in three collections, the case H approximately, 408 models, presenting important quantities of development of models by collection. The parameter that differentiates these cases is that the SME C develops research with final clients and the SME H has the partnership with suppliers of textile.

In the case D the firm develops 846 models yearly in three collections and complement of summer, act with ten collaborators in the PDP. The firm executes 17 activities of the PDP among 27 activities found in the models of the RBS. Meanwhile, the firm does not realize the partnership with suppliers, neither the survey with final client, but the structure for the product development management differs from other cases, mainly, in the organization and structure by means of information technology and the use of CAD/CAM.

### CROSSED ANALYSIS OF THE RBS AND THE MCSS

The achievement of the crossing and the analysis of the competencies found in the RBS and in the MCSs are paramount to present the ideal situations (art) and reals (practice) for the product development management in the SMEs of clothing. This crossing and their notes are shown in the Table 3.

*Table 3 – Crossed analysis of the RBS and of the MCSs. Source: authors*

Competences	RBS	MCSs
Integration	Yes	Only with retailers
Speed	Yes	No
Differentiation	Yes	Yes
Structure and organization	Yes	Yes
Tools and technology	Yes	No (only management software and CAD)
Information	Yes	Yes
Costs	No	Yes
Value	Yes	Only in one SMEs

It can be observed that in the RBS were presented almost all the competencies, except the dimensioning of the cost of tools and technology, for the product development management in the SMEs of clothing. The competence cost, mainly reduced was noted as difficulty to be executed in some cases. The speed to develop products was the competence not found as effective action in the MCSs noted directly by the directors of the development of product and designers of fashion. However, implicitly, the sales persons mentioned in the cases noted this needs when more variety of products in the period of the year, especially, in commemoratives days (Christmas, New Year, Valentine Day, among others).

The competence integration in development of products the management with clients, retailers and suppliers is noted in the MCSs and in the RBS. The effective participation of the suppliers and final clients is not much noted as reality for the product development management in the SMEs surveyed in the study of multiple cases, but characterized as of extreme importance in the RBS. Thus, the challenge consists in making this integration to set out of the theory of the RBS and to be applied in the practice for the product development management of the SMEs of clothing.

The RBS noticed the importance of the differentiation of the products of clothing to compete with products of mass production developed by Asian countries. The needs to have the sector structured and organized for development of product was identified in the RBS, however in the MCSs two firms did not presented this structure and their products are developed entirety with the production sector.

Tools and technology were the competencies found in the RBS that points out how to search the value to utilize in the development of product. It was noticed the reality of the cases studied is the few utilization of technology to improve de management to develop the product to become more

competitive. It is believed that the utilization of this competence is the way to get the product developed according to the needs of customers and shareholders. Some models found in the RBS pointed out only in the utilization of tools for this process with the partnership with suppliers.

In the MCSs found among tools and technology (T&T) noted in the RBS, only software of management with transmission of information to the sales persons and representatives and by the Computer Aided Design (CAD). The information is the competence that was presented and analyzed in the RBS and in the MCSs and consolidates, generally, by means of transmission on line for the involved in the development of internal and external products.

Finally, the value is the background of the construction of the product development management and has as the main focus of the survey the final client and afterwards the others involved in this process. One factor that highlighted in the MCSs was the missing of direct realization of the search of the value for the final client. It is made by means of transmitted information by the representatives or sales persons of the SMEs of the requirement desired in the product of clothing to be developed.

#### ASSESSMENT OF THE COMPETENCIES FOR PDP

The assessment was performed by 8 fashion designers, 14 engineers, among them: 9 textile engineers 5 production engineering with emphasis in industrial making. From the total of the sample (specialists) 7 act in firms and 15 act as an academic staff, but already acted at least, in the period of 3 years in the clothing industries. Table 4 presents the importance that the specialists noted for each competence surveyed for the product development management in the SMEs of clothing.

Table 4 – Values of the assessment of competencies for the PDP. Source: authors

Competences	None	Small	Medium	Plausible	Large
<b>Integration</b>	0.00	0.00	0.00	6.00	16.00
<b>Speed</b>	0.00	0.00	1.00	10.00	11.00
<b>Differentiation</b>	0.00	0.00	5.00	7.00	10.00
<b>Information</b>	0.00	0.00	2.00	7.00	13.00
<b>T&amp;T</b>	0.00	0.00	4.00	5.00	13.00
<b>Costs</b>	0.00	0.00	2.00	8.00	12.00
<b>Value</b>	0.00	0.00	1.00	4.00	17.00
<b>Sum</b>	0.00	0.00	15.00	47.00	92.00
<b>Average</b>	0.00	0.00	2.14	6.71	13.14
<b>Standard deviation</b>	0.00	0.00	1.77	1.98	2.54

The options of none and little importance had no indication among specialists. Data that note the acceptance regarding to the competences found in the RBS and in the MCSs. The item of differentiation had the major quantity of indications of importance in the average option, 22.73%. This factor presents the contradiction, since the assumption that the differentiation of the product be one way to be competitive in the textile market. Nevertheless, the competence value had the

major percentage of importance to the specialists. So, the competitiveness is performed by the identification of what is value for the clients and not only by the differentiation of the product. Notes made by the specialists for the competences para o PDP are illustrated in the Figure 2.

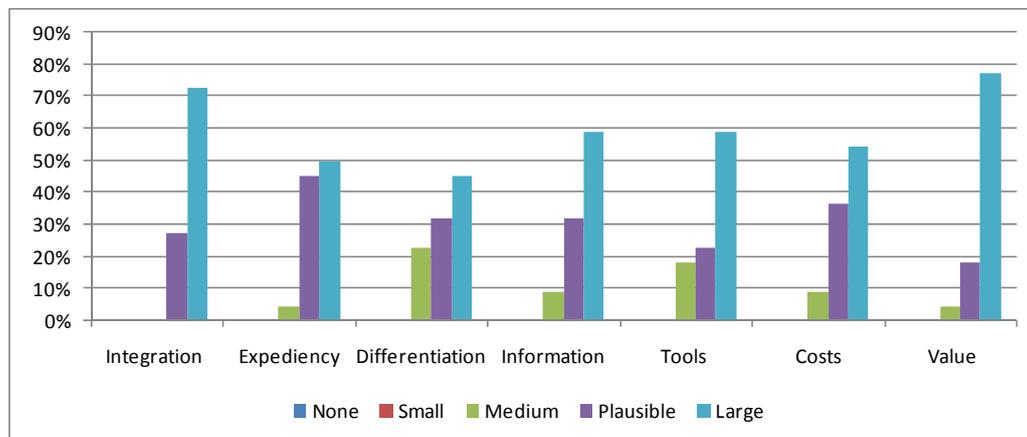


Figure 2 – Importance of competencies for specialists. Source: authors

The competence of integration presented 72.73% of great importance among the specialists that assessed the survey. The metrics of none, small and medium importance didn't had indications of the specialists. Such actions illustrate the competences integration as the paramount factor for the development of product management in SMEs of clothing. Technology and Tools was one competence that had great importance, 59.09% for the specialists in the assessment of the model. However, the competence T&T didn't noted in the MCSs and were characterized as important for the specialists.

The speed and costs were competences that are with indices of 50.00% and 54.55% of great importance in the model for the evaluators. In the MCSs these competences were noted as necessary and with difficulties for the implementation in the development of products in the firms of clothing.

For the statistical treatment of the data presents the hypothesis for the test of Kolmogorov-Smirnov:

H0: has no importance in the competencies for the product development management in PMEs of clothing.

H1: has importance in the competencies for the product development management in SMEs of clothing.

The interval of confidence of 99% for one sample of 22 specialists and the dtabled has the value of 0.3367. Thus, the Table 5 presents the assessment of the competencies of the model by means of statistical test.

Table 5 – Data processing of the assessment of the competencies of the model. Source: authors

Importance of competences	Frequency					Difference 1 and 2 (D)
	Absolute (pa)	Relative (pr)	Relative accumulated (pra) (1)	Relative theoretical (prt)	Relative accumulated (prta) (2)	
None	0.00	0.00	0.00	0.20	0.20	0.20
Small	0.00	0.00	0.00	0.20	0.40	0.40
Medium	2.14	0.10	0.10	0.20	0.60	0.50
Plausible	6.72	0.31	0.40	0.20	0.80	0.40
Large	13.14	0.60	1.00	0.20	1.00	0.00
Total	22.00	1.00				

The  $d_{max}$  estimated is 0.50 is bigger than the  $d_{tabled}$  is 0.3367  $H_0$  is rejected. Therefore, the difference observed in the level of importance of the competencies of the model noted by the specialists is significance to the interval of confidence of 99%. Nevertheless, corroborate the importance of the competencies of the models in agreement with the opinion of the 22 specialists surveyed.

### CONCLUDING REMARKS

With the crossing of the MCSs and the RBS achieved the competences for the product development management in SMEs that constitutes the objective of this survey. About the competences can conclude that: from the integration by means of information, tools and technology search the speed for the product development management to get share in the market in concurrence with great corporations of clothing. This speed has as the consequence the development of more products and the search for the differentiation of them to become the products of clothing of the SMEs competitive regarding to the Asian products. The competences cost is paramount to indicate the success of the collection and the competitiveness of the firm in the market.

Other characteristic found among the competences was for the product development management more close to the final client and the trends of fashion from the integration with suppliers and whole sale in the search of the development of one product of value for all involved in the development. The competences speed and differentiation were noted in the RBS, but were not found the practice in the MCSs in the SMEs, however were validated as important by the specialists.

Noticed also that much more competences the SMEs had in the development of products larger was the level of schooling of persons that work in this activity and broader was the utilization of technology for the management.

At last, the competences were noted in the MCSs and in the RBS. Thus admit that the competences for the PDP are ruled in the needs of the SMEs of clothing evaluated by the specialists and analyzed statistically from the test Kolmogorov-Smirnov. However, suggest applications practices these competences for the product development management in SMEs of clothing.

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