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Technical Cooperation and Innovation in the textile dressmaking exporting SME in Barranquilla-Colombia

Cooperación Técnica e Innovación en las Pyme exportadoras del sector textil-confección Barranquilla-Colombia

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Contents

ABSTRACT:

To analyze the technical cooperation as a strategic resource for the innovation of products and services that promote the growth of small and medium-sized enterprises (SMEs) that are exporters in the dressmaking- textile sector in Barranquilla, Colombia, rules the article's objective. Based on a descriptive research and qualitative method, it was proceeded with the selection of the sample was represented by 18 SMEs from Barranquilla. It was determined the lack of participation in cooperative activities focused on exporters SMEs, which is debilitating the capacity to consolidate innovation processes. It is concluded that it is important to strengthen the interaction between the government and the SMEs to maximize the benefits of technical cooperation and addressing competitively the innovation.

Keywords Technical cooperation, innovation, Exporting SME, textile and dressmaking sector

RESUMEN:

Analizar la cooperación técnica como un recurso estratégico para la innovación de productos y servicios que promueven el crecimiento de las pequeñas y medianas empresas (Pyme) exportadoras del sector textil-confección de Barranquilla-Colombia, rige el objetivo del artículo. Basada en una investigación descriptiva y método cualitativo, se procedió con la selección de la muestra que estuvo representada por 18 pyme de Barranquilla. Se determinó, la nula participación de las pyme en actividades de cooperación técnica, lo cual debilita la capacidad de consolidar procesos de innovación. Se concluye, sobre la importancia de la interacción entre Estado - pyme para maximizar beneficios respaldados por esta cooperación.

Palabras clave: Cooperación técnica; innovación; Pyme exportadora; sector textil y confección.

1. Introduction

The participation of the society in a global context has generated a diversity of transformations that have an impact on the different economic sectors, that is why, through international organizations such as the Economic Commission for Latin America (ECLA), a portfolio of international instruments have been promoted to generate benefits to the business initiatives, where technical cooperation is mentioned and conceived for the current study as a mean to impulse the innovations processes considered by Ferrari (2012) as a strategic component for the development of the business sectors.

Nonetheless, despite the progress made regarding the international relations and programs, in the last decade, it has been pointed out how certain business sectors, considering the exporting dressmaking and textile SMEs case, have been subjected to constant risks and uncertainties that affect their stability due to the market growth, the continuous improvement, as well as the conception of the processes, products, goods and services led by innovation, generate a high level of competence. Subsequently, the fact of not planning alternatives that promote greater stability, led the process to the inability of facing the threats that emerge in the environment and debilitating the sector sustainability.

As part of the important stages of the study, it is proposed the challenge of making viable strategically the extension of the dressmaking- textile exporting SMEs, the benefits offered by the different programs supported by the technical cooperation, to reinforce the interchanging processes from a global perspective and consequently, overcoming the emerging gaps related to innovation.

In this way, the participation in environments that are constantly under transformation requires standards of competitiveness and that is why the SMEs that are used as study objects require projecting an articulated growing process, where the government support through the different international instruments promoted by it, can be reached by the different business sectors that are looking for the strengthening of their potentialities.

From this point of view, different contributions are exposed to pursue crucial initiatives based on innovation, which is considered from the perspective of Schumpeter (1934) as a strategic resource to reach, not only the competiveness of the sector but the economic growth of the societies. This is why promoting it from the context of small and medium size exporting textile enterprises in Barranquilla-Colombia, requires important national and international support such as the technical cooperation instrument that encourage a greater capacity of participation and projection in different markets and generates remarkable advantages in the sector.

In the same way, making a reference to the innovation processes in the business sectors allows from the Galende (2006) perspective, to promote the performance capacities and the potential that a company should remain competitively, as well as its capacity to face the risks and uncertainties of the active environments.

From this point of view, overcoming the lack or non-existence connection between the SMEs and the technical cooperation, in the Latin American context, should respond as one of the main contributions that are promoted from a scientific perspective, based on what was exposed by Johanson and Vahlne (2009) who underlined remarkable initiatives for the enterprises internationalization.

In support of what was exposed, the objective is focused in analyzing the technical cooperation as a strategic resource for the innovation of products and services that promote the growth of dressmaking- textile exporting SMEs in Barranquilla, Colombia. Based on this, the article was structured taking into consideration the theoretical components related to the variables of technical cooperation and innovation, which allow researchers to determine the current state of some companies through a methodological approach, regarding the variables mentioned before. From these results, strategic alternatives are formulated from a concluding perspective, to contribute in the overcoming of the weaknesses of the sector.

2. Technical Cooperation and Innovation in SMEs

Conceiving the technical cooperation as one of the instruments projected internationally that contribute in promoting the consolidation of the systems and innovation processes of the states that are participating, is one of the components were its principles are grounded. The Economic Commission for Latin America, in Spanish, known as CEPAL, within the framework of the United Nations (2012) establishes that the technical cooperation encompasses a wide range of modalities and operational capacities that cover from technical consultations and implementation of specific projects to training activities, training courses related to different multisectoral environments, being through the interchange of good practices, learning through lectures, workshops, as wells as through the creation and operation of experts and specialized people networks.

Among the initiatives promoted by the technical cooperation, emerges the technical cooperation among countries (TCC), according to Uribe (2009) this is consolidated to accomplish the national and collective self-sufficiency, through the interchange of knowledges and experiences that are essential for the economic and social development. The main challenges that prevail are overcoming the poverty, scientific knowledge availability, technological innovation and human resources development. To sum up, overcoming the economic and social lagging of the least developed.

Through this, several strategies are derived and they allow participants to be included in the cooperation movements, not only to the governments but to the international organizations, the private sector and the civil society in actions that have a regional, national and international character, that is the reason why conceiving a technical cooperation, as one of the most used strategic instruments by the participants is useful to reach the economic, political and social goals. This is based on what was defined by the Development Assistance Committee OECD-DAC (1991) that states that the technical cooperation includes the total amount of options of assistance activities led to improving the conditions based on the skills, technical knowledge and the production potentialities of the developing country population.

However, it is considered as a differentiating element, the interaction processes between Enterprise-State, on the quest for equity, as well as the consolidation of efficient programs and projects that contribute to strengthening the positioning of certain sectors of the economy, from a national and an international perspective. Therefore, a reference regarding the impact of international treats that are currently promoted through important investments, showing according to the Organization for Economic Co-operation and Development (OECD, 2015), that by 2014 a total of 15.4 billion were destined to technical cooperation, corresponding to 11.4% of the total official assistance for the development.

Through the technical cooperation, the transformation of the economic and educational sectors are promoted, which at the same time contribute to the social development consolidated through the adoption of the innovating processes that include the technologies and techniques transference, as well as the interchange and mobility of human resources. Hernández et al (2012) affirm that an innovative effect is produced by improving the training quality of the human resource, as well as by the introduction of new technology and exchange of knowledge.

According to this, it is expected that the technical cooperation might be considered as an instrument to strengthen the SMEs development. Based on the United Nations Conference on Trade and Development UNCTAD (2011), it is required to understand the international economy and in the same way to know the new trading opportunities and consider the improvements dragged from the national dialogue about politics.

Nevertheless, to reach the objectives described, it is necessary to generate benefits and socio-economic impacts, then, the creation capacities and the goods and services production, as well as the exploitation of the opportunities offered by the technical cooperation, require to be supported by innovation processes impulse by the developing countries. In this sense, it is demanded to respond to the important initiatives that are undertaken, according to Louart &

Martin (2012) and Rask (2014), for the growing and the creation of distinguishing advantages and consequently the development of the sector.

To engage the participation of the exporting dressmaking-textile SMEs in competitive environments, require the development of the management capacities, where the conception of the innovating processes to be performed are supported by creating-producing actions, as well as by the consolidation of the strategies oriented towards the distribution and commercialization of the products, goods, and services generated.

In this way, it is restated what was exposed by Rothwell (1992), he considers that innovation responds to a process that includes technique, design, manufacturing, trading and management activities implied on the sale of a new product or the use of a new manufacturing or equipment. In this regard, the process mentioned requests responding to determined international standards, where the innovation activities are decisive to compete and obtain the participation in local, national and international markets.

In order to generate conceptual basis about technical cooperation, from an application perspective, it might be conceived as the action that results from the interrelation of the actors that are expecting to reach the development through the strengthening of the capacities by interchanging technical, operational and procedural competencies. The definition responds to the contributions generated by strategical resources to promote spaces, where innovation constitutes a differentiating component provided that, the interchange of human capital competencies is reinforced and the precision of the important processes of adaptation by the members who integrate the beneficiary business sector.

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3. Innovation: variable for the growth of exporting SMEs

Based on the theoretical foundations related to the innovation promoted by Rothwell (1992), Louart and Martin (2012), Rask (2014) and Hilman and Kaliappen (2015), it is stated that innovation is a decisive factor for the development of new products and services, in a way that paradigms can be changed, considered as a complex and barely understood activity, it is part of the challenge that has to be faced. That is why, the impulse of promoting a new management focus on SMEs, from the strategic leading of the sector, on the basis of the creation of capacities for innovation, oriented within the framework of the exposed conception in the Oslo Manual (OECD, 2005), where it is established the capacity to answer assertively to the process, products and services from an original perspective, the interesting complement that constitutes the innovation through the trading management and the effectivity of the organization practices, supporting these new processes and making a difference in each sector.

What was previously exposed is the reason why the technical cooperation has been considered as an alternative instrument to generate important transformations and promoting the development and company evolution, through initiatives that are focused on an assertive policy of innovation that is reinforced by the governments. Within the framework of the development of this article, the capacity of generating new products, services, processes and equipment (technological transference) are considered as the study dimensions, as well as the continuous improvement of the described components and the defined objective reached by the management to consolidate the modernization in the sector.

Each of the dimensions mentioned can allow restating what was exposed by Hauknes (1999) when he underlines that innovation demands orientation towards the perspective of understanding its usefulness to grasp the continuous learning process. Consequently, conceiving this process in a comprehensive manner generates differentiating results and are taken into consideration when competitive advantages are created, based on the vision of Gopalakrishnan and Bierly, (2001), who claim that innovating products and services make contributions based on the possibility of creating, at a lower cost and faster than the competitors, certain technologies and essential abilities that generate differentiating characteristics in the business sector, which are considered as practice of the innovation

capacity, seen from a multidimensional perspective that goes far beyond all the organizational management processes and consequently towards the capacity of strategical leading.

Consequently, to know part of the experiences related to innovation in the business sector of the exporting dressmaking-textile SMEs, contributes to determine not only the potentialities and capacities of the State-Enterprise interaction, but its impact on the tangible and intangible resources that are available for the development of these activities, that is why a reference is made regarding the usefulness of the technical cooperation as an international instrument that supports the collaborative processes and the growth of the sectors that get benefits from it.

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4. SMEs within the framework of Technical Cooperation

Currently, exporting dressmaking-textile SMEs are conceived as a fundamental part of the company infrastructure that projects its products from a global and local context. This statement is based on what was suggested by the World Intellectual Property Organization when exposes that SMEs represent more than 90% of the companies in most of the countries of the world and it is attributed to them more than 70% of the total production of goods and services. Likewise, the chamber of commerce of Barranquilla (2014) registers that the manufacturing industry represented 12, 3% of the national gross domestic product, being the textile subsector one of the main contributors with a participation of 9,2% of the total domestic product of the manufacturing industry, per the data shared by Business Superintendence (Superintendencia de Sociedades, 2015).

On its behalf, The Organization for Economic Cooperation and Development (OECD) and the Economic Commission for Latin America and the Caribbean (2012) establish that Latin America these ones represent 99% of the total number of enterprises; while the European Union constitute 99.8% of the SMEs existing in the 28 countries (Dirección General de Industria y de la Pyme, 2015). Based on what is described in the Colombian context, the SMEs correspond to the 99.7% of the business network.

The data expose lay the foundation to determine the necessity of promoting and dynamizing the development of SMEs and strengthen the economic growth, proposal places considerable burdens regarding the consolidation of the interaction with the governments and therefore encouraging the participation and obtaining the benefits disposed by the different instruments and international cooperation agreements, as part of the strategies to overcome the gaps that exist due to the lack of knowledge and human capital professionalization, obsolescence of technologies, weaknesses in the production processes from the operational perspective, which are affecting the development and leading of the companies, as well as the lack of participation in national and international markets.

Underlining the balance about what was exposed, from a Colombian context, the participation encouragement has been successful through different international organizations that promote instruments such as the technical cooperation to reach a higher level of development and the adoption of alternatives that lead the sectors to the strengthening of the business fields and can be potentially able to outline the capacity of SMEs.

The orientation is focused on overcoming the weaknesses that diminish the commercial participation of the sector, such as the Productive Transformation Program-PTP- (2016) of the Ministry of Commerce, Industry and Tourism in Colombia, in which it was projected that by 2016 it would be promising for the sector activities and underlined the potentialities that are taken into account regarding the improvement of the production and the increment of the exportations.

Two of the strategies suggested by the PTP are based on the methodologies *Demand Driven* [3] and Lean Manufacturing [4], respectively, whose applications might be accelerated and materialize them, if the specialized human resources are available in the specific area of influence; otherwise, it is required the assistance through instruments that allow the action of potential abilities focused on knowledge, that is why the technical cooperation might be

consider as a strategy that guarantees the viable execution of better practices of both the production process and sales and involvement in international financial markets.

Therefore, the participation of the organizations in technical cooperation processes is materialized if these are projected as entities capable of leading a transforming company management focus on accomplishing organizational goals where the complexity is assumed as part of the adoption of innovating practices that substitute the management obsolescence. From this view, the participation of all the enterprise structure areas is promoted and projected and there is a special impulse and a commitment focused on innovation and efficiency.

5. Methodology

The development of this research allowed to systematize and obtain contributions based on the main theoretical fundaments, through the application of an epistemological approach under the deductive rationalist framework, based on the qualitative method.

A procedural systematization is structured based on a non-experimental-transactional research design. In order to identify the exporting SMEs in Atlántico, the percentage of exporting companies that participate in Barranquilla (See table 1.) In terms of numbers, a total of 18 exporting dressmaking-textile SMEs were taken into consideration and each company has a minimum number of 10 employees.

Table 1. Percentage of participation of the exporting SMEs in Barranquilla.

Exporting SMEs by sector	Percentage of participation
Industry	40.56%
Information y Communication	4.02%
Real State	0.80%
Mining	0.40%
Professional, Scientific y Technical	4,42%
Administration and support management	2.81%
Transportation	3,21%
Agriculture and livestock	4,42%
Accomodation and restaurants	0,40%
Wholesale and retail trade.	32,93%
Construction	4,82%
Electricity, Gas, Vapor and Air conditioning	0.80%
Financial	0.40%

Source: Own development (2017). Adapted from Barranquilla Commerce Chamber (2014).

For the selection of the samples, it was considered what was established by the International Standard Industrial Classification (CIIU) whose guidelines defines in the Resolution No. 000139 of The National Tax and Customs Office (2012), make a reference to the textile products finishing, the textile products making, with the exception of clothes, dressmaking, with the exception of clothes made of fur, manufacturing of other textile products (Not previously classified) and weaving fabric manufacture. As well as the capability of researching and development as support for the innovation progress, enhanced through private financial resources, sponsored or through international benefits.

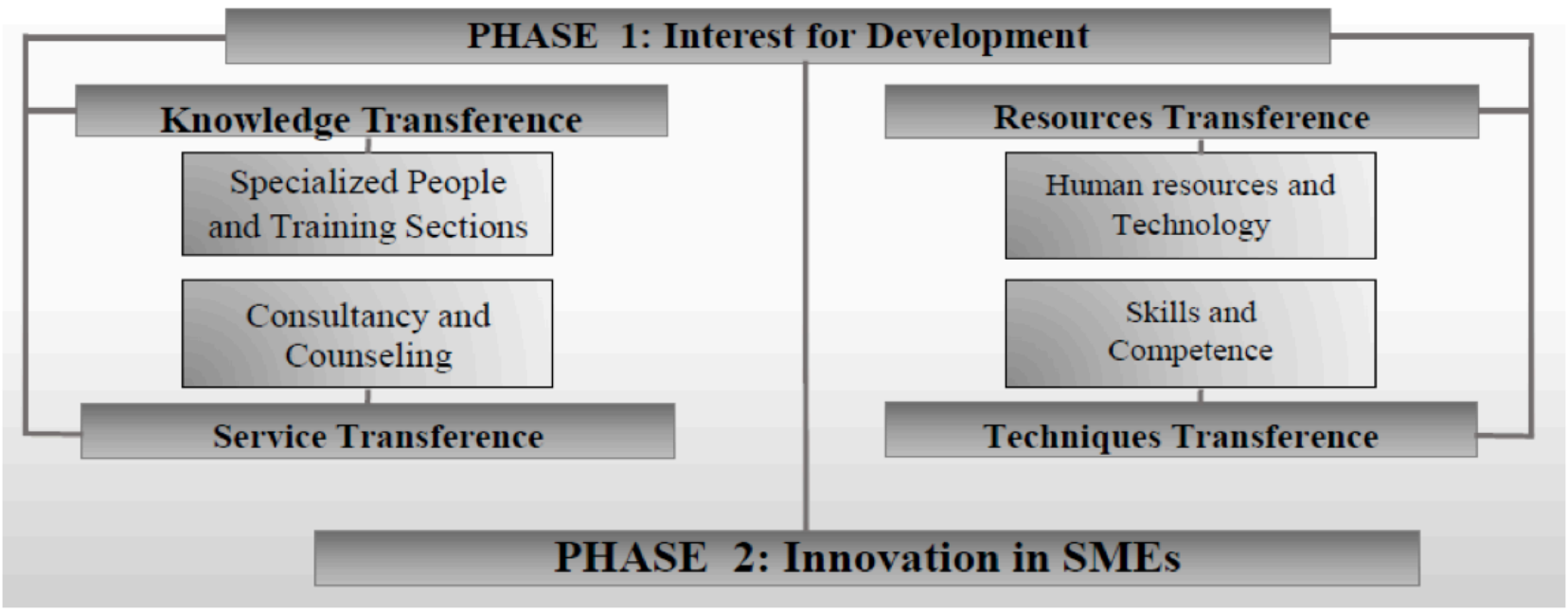
To study the variable of technical cooperation and innovation, from a qualitative perspective, a documental analysis technique was implemented plus observations to determine the qualitative findings, a process that allowed to analyze the theoretical fundaments and the identification about its application in the context of the study.

In general terms, the methodological process helped to transcend from the descriptive field to the explanatory one through the information obtained from a previous designed structured questionnaire that was addressed to the owners and managers to define and structure the system of theoretical categories that supported the definition of the strategies oriented to improve the effectivity of the technical cooperation processes related to the conception and the scope of the management reached by the SMEs studied.

6. Results analysis

The results of the analysis of the technical cooperation as a strategy implemented to promote innovation in the exporting dressmaking-textile SMEs in Barranquilla, allowed from a qualitative perspective, to generate contributions where the systematicity of knowledge is presented in figure 1.

Figure 1. Systemic process of Technical Cooperation for innovation



Source: Own development (2016). Adapted from ONU (2012) and AMEXCID (2012).

The representation of the analysis of the technical cooperation for the innovation has been conceived by considering either the field of reflection as well as the interpretation to infer the behaviors and structure the meanings of the cooperative process in the sector. In the same way, an intersubjective vision of the process is constructed where the reality studied is articulated with the position of the researchers and attention is given to the interaction among the SMEs mentioned.

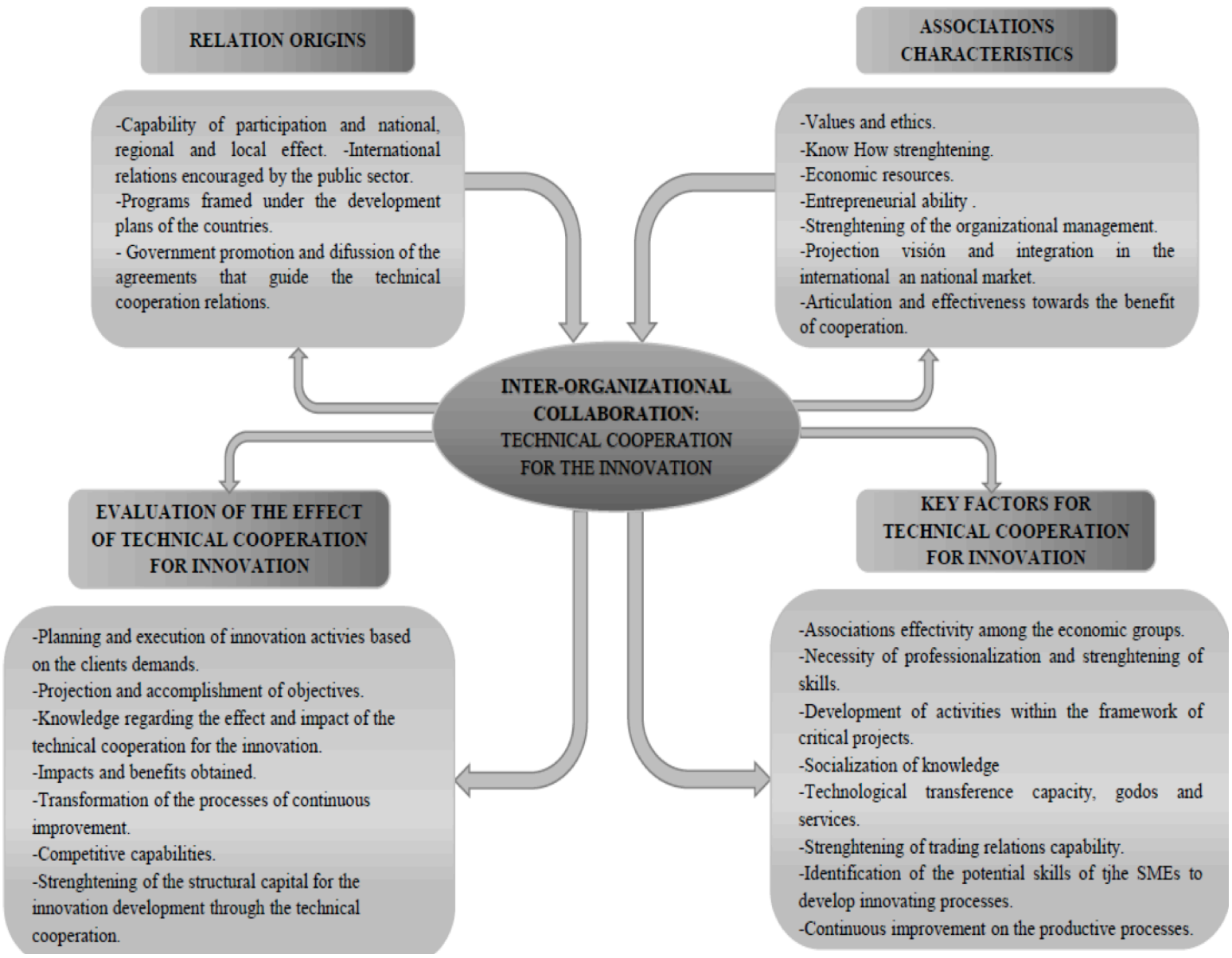
The representation of the process in which the technical cooperation for the innovation occurs, is supported within the framework of what was established by the United Nations (2012) and the International Development Cooperation of Mexico (2012). Consequently, the interaction of

each phase has been developed regarding the conditions imposed by the environment, where the SMEs should facilitate the overcoming of traditional routines and eventually adopt processes that converge and are reinforced by the trends that demand a greater capability of the business sectors to respond to promote innovation, reflected on the new forms of production and therefore positioning the products and services.

The representation of phase 1, arranges the interest for innovation whose consolidation is reinforced through the linkage of the components that support the management of the knowledge transfer, resources, services y techniques, which are assumed in a strategic way to reach phase 2: innovation and development which allow to project the commercial strengthening of the exporting dressmaking-textile SMEs in Barranquilla.

Another component related to the interest in the technical cooperation, which is linked with the competence of inter-organizational development. This is based on the interrelation of the dimensions that come from the relation origin, associations' characteristics, and key factors of the technical cooperation, as well as the evaluation of the technical cooperation and innovation, whose fundaments allow to answer to the definition of the components that integrate them, as they are described in figure 2, where the generation of added value through conceptualization is complemented with what was exposed by Koljatic and Silva (2002), which were updated by using the results of Eisenhardt (1999) and cited by Rodríguez, Flores and Miranda (2013), where numerous variables are articulated with the origins of the relation based on the technical cooperation.

Figure 2. Inter-Organization Cooperation Relationship: Technical Cooperation-Innovation



Source: Own development (2016). Adaptaded from Koljatic and Silva (2012) and Eisenhart (1999) cited by Rodríguez, Flores and Miranda (2013, p.183).

The capability of systematizing the components that guide the inter-organizational collaboration: technical cooperation for the innovation is characterized through the presentation

of the alternatives proposed to encourage the participation of the SMEs in the global markets. This action is leading the current proposal to overcome the weaknesses y promote the competences of the SMEs that are part of the study. In general, it is stated that promoting the inter-organizational collaboration was part of the differentiating results that require their strengthening in order to match the interests of the owners and managers who participated in the surveys during the data collection. These participants showed a high level interest in obtaining the benefits and advantages after the application of international instruments such as the technical cooperation and augment their installed capabilities and successively creating the conditions for researching and developments as part of the platform necessary for innovation.

In this way, what was exposed by Raposo, Ferreira and Fernández (2014) is reinforced. Cooperation has a positive impact on the companies and standards performance, and also it is considered the manner in which the enterprise conceives its cooperative structure, not only through financial instruments but through internationalization of the sector by the consolidation of their ability to export and participate in different markets.

In this respect, Villalba, Hurtado, Guarín, and Casas (2013), state that if an advantageous environment oriented to the consolidation of innovation is promoted, the leaders of the enterprises should consider three important aspects: a) The enterprise structure, b) the organizational structure and c) the personal management. In this sense, to promote participation spaces for the SMEs by implementing the instruments mentioned, reflect that the main interest is focused on reinforcing the formative processes of people, positioning their products and services as exporting enterprises from the dressmaking- textile sector in Barranquilla- Colombia.

This is the reason why, the results of the strategies definition are complemented. These were categorized based on the conception and the range of the SMEs context. See table 2.

Table 2. Strategies and effect within the framework of the analysis of the technical cooperation for the innovation.

Strategies	SMEs effect
Interaction of the SMEs with the organisms of the government to intensify processes and have access to the benefits of technical cooperation as a support for innovation.	Consolidation of the organizational infrastructure to take advantage of the direct and indirect benefits that impact the strengthening of human capital, structure and relations of the SMEs.
Spreading, promotion and interaction between the government and the international organisms that promote the technical cooperation and its agreements.	Previous knowledge of the formation process that implies a conceptual-theoretical management of the effect of technical cooperation and its forms of participation.
Strengthening of the innovation processes through the spreading of the legal structure and the rules that support the technical cooperation.	Continuous improvement of the programs and processes that reflect the skills.
Strengthening of the capability of commercial relations	Participation and economic growth projected towards the gain of new markets consolidating a greater capability of having relations with the environment.
Obtaining tangible and intangible benefits that guide the technical cooperation programs.	Interaction through sponsored programs for the technical cooperation where technological, technical, information and experimental changes might be experienced partially or completely during the

	practices developed by the SMEs.
Identification of the potential skills of the SMEs to Project themselves on processes focused on innovation.	Generation of new products and services under the innovation activities framework.
Participation and interaction in the formative programs for the competences development of the human capital, promoted by the technical cooperation.	Updating and formation processes for the human capital from a professional improvement perspective plus a technical support.
Strengthening of the organizational management, SMEs regulations to have access to the benefits supported by the technical cooperation.	To promote the consolidation of the organization from a functional and operational point of view under the requested regulations for the participation of the benefits of the technical cooperation.
Identification of the potential skills and the entrepreneurship capabilities to promote innovation by the SMEs members.	Adoption of an entrepreneurship and competitive development culture by the members to reflect eventually the productivity and competences in the business sector.
Engagement of the organization to set on innovation policies in the SMEs.	Adoption of the practices that guide the instruments of cooperation, representing a projection on the dynamic of development and innovation.
Ability to adopt the strategies oriented to encourage the innovation based on the technical cooperation.	To promote and redound key strategies to be used in favor of the development of different organizational competences: innovation, knowledge and relations.
Continuous improvement regarding the productive processes for the strengthening of the innovation in the SMEs.	Interaction with stakeholders, transformation and efficent generation of the productive process.
Projection and integration vision of the national and international market through capabilities of innovation regarding products and services.	Processes redirection of new products, goods and services that support the innovation activities projection.
Planning and execution of activities focused on the products and services innovations of the exporting SMEs responding to the real and possible clients' needs.	Opportunity based on the ability to encourage and assertive organizational addressing that support the capability to experiment advances regarding the optimization of producing processes: elaboration, trading, goods, services and products sale to segment new national and international markets.

Source: Own development (2017)

7. Conclusions

The results obtained from the analysis of the technical cooperation and innovation of the exporting dressmaking-textile SMEs in Barranquilla, concluded that there is a lack of knowledge regarding the potential that can be reached if the technical cooperation as international instrument is promoted. This is why it is considered that the study object has been excluded and its participation is just part of the production chains. Hence, the benefits and impacts that

are dragged from the instruments proposed by the government are oriented towards sectors that have different profiles and conditions and a positioning version is omitted in the national and international markets. This sector should be considered because it is one of the areas that is presenting levels of evolution and development regarding the plans and policies of the country.

In addition, there is evidence of the necessity of promoting the abilities and competences of human resources through the benefits offered by the programs promoted by the technical cooperation in order to reinforce the generation of processes, products and services through the intellectual development and the adoption of technological resources as influential factors for the progressive transformations focused on the SMEs innovation studied.

Consequently, despite of the limitations presented during the development of the research, due to the lack of knowledge of the studied variables, this work can be considered currently a part of the initiatives that are required to be analyzed to start the selection of the instruments that maximize the competences of the SMEs, as well as overcoming the gaps that reduce the access to the international trading.

The participation of the SMEs in the cooperation program will definitely strengthen the management processes to promote the internationalization as part of the challenges to accomplish and overcome the limitations detected.

In general terms, it is concluded that it is very important to define the research lines that can contribute to measure the impact and the scope of the international instruments endorsed by the government policies such as the technical cooperation and its influence on the enterprise sectors. The objective of executing this is to fortify the association between State-enterprise and specially the appropriateness of the portfolio of programs and services offered in order to promote the development and economic growth of the companies and as a result of the countries participating on it.

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3. It consists on forcing a change on the conventional model by focusing on the supply and minimal costs during the flow and backward process of the demand through 5 steps: 1. accepting the new reality, 2. understand the flow concept and its consequences on the investment return (ROI) 3. To design an operational model based on the flow. 4. Incorporate the Demand Drive model in the organization. 5. To use (Smart Metrics) to operate and hold the Demand Driven model. (Smith & Smith, 2013)

4. It is a working philosophy, based on people, that defines the improvement method and the optimization of a production system by focusing on the identification and deleting of any kind of ¨waste¨: overproduction, waiting time, transportation, processed excess, inventory, movement and defects (Hernández Matías & Vizán Idoipe, 2013)

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