

REVISTA DE EMPREENDEDORISMO E GESTÃO

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Favorable and unfavorable points for the formation of a local productive arrangement in the industrial sector of jeans making: the case of Quedas do Iguacu - PR

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SUMMARY

The objective of the research is centered on analyzing the environment for the formation of an APL in the industrial sector of making jeans in the city of Quedas do Iguaçu-PR. The methodological approach is descriptive and predominantly qualitative. Data collection was carried out through a field study and documentary research, using data that composed the calculation of the locational quotient, as well as interviews and questionnaires, applied to representatives of the industry (companies), public authorities (municipal) and supporting bodies (ACIQI). The research sample considered the nine industries of the industrial sector of making jeans from Quedas do Iguaçu - PR, which provided the requested information. The public power was represented by the head of strategic affairs of the municipality and by the secretary of industry and commerce, and in relation to the supporting body, the director of regional affairs and the executive manager of the ACIQI. The results point to a good geographic concentration and a need to advance in aspects related toto intercooperationamong the industries of the jeans sector, the direct participation of the government and support agents for the formation and maintenance of the APL. Finally, the efforts of these actors will be necessary to mitigate the unfavorable points of the formation of the APL

Keywords: Environment. Local Productive Arrangement (APL). Textile industry.

1. INTRODUCTION

Organizations invest in innovation based on reducing costs and increasing profits, as Chiochetta (2005) comments. These actions converge in promoting the growth of organizations and consequently reflect in aspects related to survival, competition, expansion and diversification (PANUCCI FILHO and GARCIAS, 2010).

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According to Motta (1997), bases based on attributes with emphasis on the optimization of production costs and quality, considered differentials in the past, are no longer sufficient to guarantee the perenniality of organizations. The author emphasizes that in addition to innovation, it is necessary to invest in the relationships between suppliers, distributors and customers, with the purpose of jointly structuring a competitive strategy.

In Brazil, within the scope of organizations, a market that draws attention for its numbers is the fashion industry, as pointed out by Teixeira (2013). According to the Brazilian Textile Industry Association (ABIT), the Brazilian textile and apparel sector is the second largest employer in the manufacturing industry and is the second largest generator of first jobs, with 1.5 million direct employees and 8 million if we add the indirect ones. Industry figures point to being the fourth largest producer and consumer of jeans in the world, fourth largest producer of knitwear worldwide (ABIT, 2019).

The intensification of imports, followed by the urgent need to contain the growing participation of imports in Brazilian trade, signaled demands of the Brazilian economy that reflected in the industrial sectors, especially in the clothing industry (PANUCCI FILHO and GARCIAS, 2010). Brazil has companies that operate in all links of the textile production chain (ABIT, 2015). Caldeira et al (2015, p. 335) highlight that "... there is potential for cooperation between companies in the different links in this chain so that the sector remains strong in the economic scenario and achieves gains in competitiveness at the local and international level".

One of the cooperation mechanisms that can help to strengthen organizations may be in the reorganization of their structures into Local Productive Arrangements (APLs). As announced by the Ministry of Science and Technology (MCT), these arrangements can be defined as clusters of economic, political and social agents, located in the same territory, which actually or potentially present consistent links of articulation, interaction, cooperation and learning. The Local Productive Arrangements (APLs) can be pointed out as a form of restructuring that allows benefits to the companies of the arrangement and promotes development in the local society (NETO, 2009; SOUZA, 2011).

In Brazil, the Local Productive Arrangements in the last decades gained momentum due to the importance of some successful experiences with this type of

territorial organization of production (SUZIGAN et al., 2006). In this sense, Suzigan et al. (2006, p. 4) emphasize that "localized productive structures have increasingly become the focus of attention of various public bodies and institutions through actions and measures to support and develop the competitiveness of local companies".

Serra and Paula (2007) identified that the clothing activity predominantly carried out by small companies in the municipality of Cianorte can be considered the closest experience in Paraná to an industrial cluster with typical characteristics of an APL, although there are flaws in this APL in terms of physical infrastructure. Another experience in the State of Paraná is found in the Information Technology (IT) APL "formed in the Southwest region of Paraná in 2003, on average 14 companies until 2009 and currently aggregating 52 companies, which contribute with a average of 1,168 direct jobs in the IT sector for the region" (BONAM, RAUBER E CARVALHEIRO, 2014, p.17). According to the authors, the involvement of bodies and institutions in the APL,

A similar scenario can be observed in the south central region of Paraná, near the municipality of Quedas do Iguaçu - PR. According to data from the Commercial and Business Association of Quedas do Iguaçu (ACIQI), the municipality of Quedas do Iguaçu - PR has a significant industrial park, where 13 industries are established in the jeans manufacturing sector, 2 of which are larger and 11 are smaller size. The set of 13 industries together generate about 1117 direct jobs according to information from the General Register of Employed and Unemployed (CAGED) in November 2020.

From this initial context, a question to be observed is opened: How is the environment (the favorable and unfavorable points) for the formation of a possible Local Productive Arrangement, looking at the industrial sector of jeans making, based in the municipality of Quedas do Iguaçu-PR? Thus, the research proposal sought to analyze the environment for the formation of an APL in the industrial sector of making jeans in the city of Quedas do Iguaçu-PR.

In light of the definition of APL and considering the relevance of the jeans industries for the municipality of Quedas do Iguaçu, their reorganization could contribute to make them more competitive in the market in which they operate. The research adds a look based on the inclusion of public agents to encourage a proposal for agglomeration,

making a parallel to the perception of managers (industries) and their class representation bodies (ACIQ).

As a science, the results of this work will contribute to previous studies (CHIOCHETTA, 2005; TAVARES, 2011; PANUCCI FILHO and GARCIAS, 2010; FERREIRA, 2006; BONAM, RAUBER AND CARVALHEIRO, 2014) carried out within the thematic discussion involving APL's. In these studies, there are gaps to be explored, as they do not work directly with the public sector in their research. In Ferreira's (2006) view, the interrelationship of companies with the public sector is fundamental for the formation of an APL. In this way, the present research differs from previous studies, as it adds a look from the lens that observes the interaction of the public power with the industrial sector of jeans making through an applied interview.

The jeans industries of Quedas do Iguaçu - PR have a share of 23.24% of the total jobs generated and 42.96% of the jobs generated by the entire industrial sector of the municipality (CAGED, November/2020). It is noticed that the researched industries have an important participation in the generation of jobs, in the income of the citizens, in the taxes that return to the municipality and to the economy as a whole.

2. THEORETICAL FRAMEWORK

Below are some definitions within the universe of productive agglomerations, as well as notes and contributions brought by the studies present in the literature on the subject.

2.1. PRODUCTIVE AGLOMERATIONS

According to Lübeck, Wittmann and Silva (2012) productive agglomerations are companies of the same sector located in the same territory. These agglomerations can be called clusters, local productive arrangements and local systems of production and innovation (LUNDVALL, 1995; PORTER, 1998). However, these nomenclatures describe different stages of agglomeration, as highlighted (LUBECK, WITTMANN and SILVA, 2012).

As announced by the Ministry of Development, Industry and Foreign Trade (MDIC), the existence of Local Productive Arrangements (APLs) are recognized from the presence of a set of factors that start from the sectoral concentration of enterprises and individuals engaged in productive activities related to the sector. reference of the APL; cooperation between the members of said arrangement; and the existence of governance mechanisms.

2.1.1 The economic consequences generated from the agglomerations

According to the study by Raiher and Stege (2018), Paraná has 193 agglomerations in the state spread across the microregions of the state. Also according to these authors, among the microregions where there are agglomerations, Curitiba has the highest number with 20, followed by Maringá with 18 and Londrina with 17.

According to data published by the Paraná government website in 2015, of the 193 agglomerations located in the State of Paraná, 23 are organized into Local Productive Arrangements. The 23 APLs generated 79,800 jobs in the state, with the clothing APL in Cianorte and Maringá being the largest employer with the generation of 12,900 jobs, followed by the furniture APL in Arapongas with 12,600 jobs, in third in place is the software cluster in Curitiba with 9,100 jobs and in fourth place is the cap cluster in Apucarana.

The formation of APLs in Paraná presents a potential generator of jobs and made companies competitive and increased production efficiency. However, the lack of policies aimed at infrastructure and spatial organization can cause negative impacts in terms of productive efficiency (RAIHER AND CANDIDO, 2018).

The textile industrial sector of Paraná represents 8.74% of the national GDP of the sector, being the 4th largest national producer with more than 6 thousand industries, a production of 150 million pieces and a turnover of R\$ 4 billion in 2010, as reported by Chiapetti, Alves and Silva (2017). The authors add that in Paraná the sector generates more than 98 thousand jobs and most industries are micro and small companies. According to information from the General Register of Employed and Unemployed (CAGED) published in November 2020, in the Center-South region of Paraná, the

industrial sector of denim manufacturing employs 1,493 people, of which 1,117 are jobs generated in Quedas do Iguaçu - PR .

2.2 Apl's location competitive advantages

Ferreira's (2006) study sought to identify development conditions and favorable and unfavorable factors for the formation of an APL in the city of Divinópolis - MG. The results of Ferreira's research (2006) verified that the favorable condition for the formation of an APL in Divinópolis is the geographic concentration of companies in the same sector. However, the study identified that unfavorable conditions exceed favorable ones. Respondents reported the lack of support from the public sector and the lack of interaction with educational institutions in Divinópolis. Although there has been an agglomeration of companies in the same sector, there is no interrelationship between them, so companies are unable to appropriate the competitive advantages generated in the formation of an APL.

The formation of the Local Productive Arrangement is an alternative for micro, small and medium-sized companies to become competitive in the market (PATIAS et al., 2017). Also, according to Patias et al (2017), the formation of an APL will depend on an agglomeration of companies operating in the same productive or service sector, the mobilization of actors somehow linked to the sector, the intercooperation of the companies that make up the agglomeration. , the involvement of the public sector and support agents, putting an end to the creation of the APL steering committee.

According to information published by SEBRAE (2014), an APL does not constitute a CNPJ, since it does not become a company or cooperative, but rather a union and effort of the participating actors, to achieve the advantages that can be achieved by reorganizing themselves. in an APP. For Patias et al (2017), an APL does not constitute a central command, but a governance structure, which depends on interactions and negotiations between the actors involved.

The formation of an APL is a determining factor for the local economic and social development and for the region in which it is inserted (SAMPAIO and ALVES, 2013). According to Santos, Diniz and Barbosa (2004), the formation of the APL becomes

crucial to boost the development process, because when they act to reorganize the companies clustered in an APL, they attract investments and reinforce the agglomeration, increasing income., attract people and public investment in infrastructure. Consequently, they attract more companies, companies in particular those in the service sector.

For Jacometti et al (2016), the advantages of a production cluster still have their specificities, for which they obtain their advantages when a purchasing center is created and their workforce is trained together. Another positive feature is the location, as the members share the same infrastructure created to meet the demand of the APL companies. Rodrigues (2003) found that APLs allow micro and small companies to increase production volume and increase technological possibilities.

From the literature, it is possible to identify the competitive advantages generated by an industrial cluster, such as: multisectoral externalities, gains in scale or scope and sectoral externalities. Multisectoral externalities are locational advantages that benefit several sectors and are associated with reduced transport costs, reduced inventory costs, shorter delivery times, lower costs and shorter deadlines for the provision of generic services (SANTOS, DINIZ & BARBOSA, 2004).).

The gains of scale come from additional investments in the production plant and from internalized learning gains that spread through the APL. Also according to the authors Santos, Diniz and Barbosa (2004), the advantages are related to a local environment conducive to the dissemination and increase of knowledge, conducive to multilateral cooperation between companies, institutions and public authorities.

2.3 Previous studies

Chiochetta (2005) researched a modeling proposal for the implementation of an APL for the metal mechanic sector, involving industries located in the Southwest region of the State of Paraná. The research found the presence of natural comparative advantages, such as raw material, and favorable physical conditions or competitive advantages, such as qualified labor and/or with a great possibility of qualification, as well as: infrastructure, logistics, flow channels and cooperation of the spheres governmental.

Panucci Filho and Garcias (2010), brought the results of the strategic alliances adopted by the jeans confection industries in the Maringá-PR Region. The study shows that the clothing industries in the region, by forming a Local Productive Arrangement, with specialization of these units in certain activities, expanded their training possibilities and increased productivity, consequently, expanded their potential to obtain better results.

The study by Bonam, Rauber and Carvalheiro (2014) analyzed the performance of the Local Productive Arrangement of Information Technology in the Southwest of the State of Paraná (APL TI), envisioning the activities developed between 2012 and 2013 and its link with regional development. It was found that the involvement of bodies and institutions in the APL became a tool to encourage the development of the region from the joint action of the agents.

A study carried out by Tavares (2015) in an APL in the clothing industry sector in Divinópolis - MG, verified the effects of heterogeneity between companies in the absorption of externalities in productive agglomeration of the clothing industry in Divinópolis - MG. After identifying which externalities perceived by managers and the competitive priorities adopted by them, it was found that these priorities are composed of quality and flexibility, and therefore value the externalities of access to technical and specialized labor, innovation, information exchange and knowledge, as well as access to suppliers and customers.

3 METHODOLOGICAL COURSE

The research design denotes a descriptive study, carried out from a field and documental study, predominantly qualitative in approaching the research problem. Data were obtained from the following bases: Chiochetta (2005), CAGED, City Hall of Quedas do Iguaçu – PR, questionnaires and interviews. From the literature by Chiochetta (2005), added to other sources from the literature review, it was possible to raise the positive characteristics for structuring an APL.

CAGED provided the list of jobs generated by the industries of Quedas do Iguaçu-PR and by the industrial sector of Paraná in November 2020. These data were necessary to compose the calculation of the location quotient (QL): (Jobs generated by the industrial sector of making jeans in the city of Quedas do Iguaçu - PR / Total jobs generated by the

industrial sector in the city of Quedas do Iguaçu - PR) / (Jobs generated by the industrial sector of making jeans in Paraná / Total jobs generated by the industrial sector in Paraná)

Along with the taxation sector of the Municipality of Quedas do Iguaçu, the number of active jeans industries in the municipality was obtained. The characterization of the researched industries required the elaboration of a questionnaire, which was built in the light of the models presented by Chiochetta (2005) and Ferreira (2006). The questionnaires were applied in the second week of March 2021, with a period of 25 days to finish receiving the respective responses. The questionnaires were applied to the managers or owners of the 13 industries present in the municipality of the research, which contained 26 questions divided into five blocks. The sample included 9 industries that were willing to contribute to the research.

The first block contained data identifying the companies and the respondents, comprising three questions; the second block, called human resources, comprised three closed questions; the third block entitled production, concentrated eight closed questions; the fourth block, called Marketing, included six closed questions; Finally, the fifth block, called Interaction with public authorities and support agents, addressed the relationship with support agents and public authorities, comprising four closed questions and two open questions. The process of forwarding the data collection instrument was initially carried out by contacting a manager at a strategic level (owner, management). Then, the link to access the form (electronic document) for filling in the answers was sent.

In order to identify the relationship between the government and the support agents with the industrial sector of making jeans, two scripts of questions were elaborated on which the interviews were based. A script containing eleven questions previously formulated and two incorporated during the application of the interviews, aimed at the secretary of industry and commerce and with the head of strategic affairs of the municipality. Finally, another script containing thirteen questions with the ACIQI executive and the ACIQI director of regional affairs.

The interviews were classified as semi-structured, since in addition to the proposed questions, there were questions inherent to the circumstances of the moment, which expanded the range of questions previously formulated (MANZINI, 1991). The

questions, mirrored in the study by Ferreira (2006), were applied in the first and last week of April/2021.

From the understanding about the interaction of the industrial sector with the public power, it was possible to access a set of characteristics regarding the stage of agglomeration pertinent to the organization of the researched industries. In the literature review, the identification of the positive characteristics for the formation of an APL and its confrontation with the extracted characteristics of the field research, resulted in a description of the characteristics that allow to evaluate the possibility of organization of the industries of Quedas do Iguaçu - PR in an APP. The qualitative approach prevailed, seeming to be the most adequate to understand the nature of the social phenomenon. Still, although not predominantly, the research used the quantitative approach for analysis,

4 ANALYSIS AND DISCUSSION OF RESULTS

4.1Geographical Concentration of the Jeans Manufacturing Sector in Quedas do Iguaçu – PR

To measure the geographic concentration of the industrial sector of jeans making in the city of Quedas do Iguaçu - PR, the Location Quotient (QL) was calculated, whose quotient corresponds to the degree of concentration of the industrial activity present in the city. The parameter used was that of Zissimos (2007), which indicates for a microregion to present a high degree of concentration, the result must be greater than one.

The QL aims to compare two sectorial-spatial structures, where it is the ratio between two economic structures: the numerator corresponds to the numbers of the economy under study, while the denominator is a reference economy, according to Zissimos (2007). Therefore, in this case, the economy under study is the municipality of Quedas do Iguaçu - PR and the reference economy is the State of Paraná.

The variables referring to the number of jobs generated by the activity, whether in the Municipality or in the State of Paraná, were collected from data updated by CAGED of November 2020. With regard to the denominators, the totalizers of the number of jobs generated were used by the industrial sector, both in the Municipality and in the State,

according to CAGED (November/2020). After applying the calculations, it was found that the locational quotient is equivalent to 7.66.

Thus, according to the parameter of Zissimos (2007), the concentration of activity in the municipality of Quedas do Iguaçu - PR is high, because according to the author, values for the QL greater than 1 indicate that there is a concentration of economic activity in the Municipality. higher than the concentration of this economic activity State. The concentration of economic activity in the municipality or region is extremely important, as it is one of the essential factors for the formation of an APL, according to the MDIC. Also, as explained by the MDIC, the existence of an APL is recognized from the presence of a set of factors, among them, the concentration of individuals employed in productive activities related to the APL's reference sector.

4.2 Characterization of the industrial sector for making jeans in Quedas Do Iguaçu-PR

The first block of questions was related to company data and respondents. The questions referred to the year the companies were founded, the position and training of the respondent. Of the 9 responding companies, two were created in the late 1980s, one in the 1990s, two in the 2000s and four in the last decade. Data collection showed that the majority (8) of respondents occupy positions directly linked to organizational management. Another question sought to investigate the training of the respondents, which showed that most (56%) of the respondents have higher education and the rest have secondary education.

The characterization of the industrial sector for making jeans in Quedas do Iguaçu-PR was carried out from the following dimensions: human resources, production, marketing and interaction with public authorities and support agents.

4.2.1 Human Resources Dimension

To characterize the industrial sector of making jeans in the city of Quedas do Iguaçu - PR in relation to the management of human resources, 3 questions were raised that seek to identify the number of employees, the space used by the manager to train its employees and the presence of partnerships to carry out this training.

Two industries employ more than 100 employees, one reaching approximately 400 jobs generated. Only one company employs less than 10 employees, while the others generate around 30 to 72 employees. The data reveal the generation of employment in the sector, in the community in which it is inserted.

The results indicate that an average of 94 jobs are generated per company, considering the sum presented by the respondent companies. Taking into account the 4 companies that did not respond to the questionnaire, assuming that they follow the average number of employed people, approximately 1200 people are found employed in the industrial sector of jeans making, confirming the data obtained through CAGED in November 2020, since the result is approximate with 1117 employees.

In order to find out where the jeans industries in the city of Quedas do Iguaçu-PR seek to qualify their workforce, 89% of respondents choose to train/train internally, using their employees as instructors. Only 11% hire private sector companies to carry out the training and none of the respondents use public service or the "S" system (SENAI, SEBRAE, SENAC, SESI).

In order to find out if there are partnerships or joint work between the jeans industries in the city of Quedas do Iguaçu - PR in the qualification of the workforce of their employees, it was found that companies that seek training in the private sector, use from this intercooperation.

4.2.2 Production Dimension

To characterize the production area, a set of eight questions was applied. The first question aimed to determine whether the production was geared towards own brand or production to order for other brands. A small portion (33%) of the surveyed industries direct their production to their own manufacturing, while most industries (67%) have their production geared towards serving other brands.

The other two issues are related to quality control. Most industries (67%) surveyed have a specific department for quality control and management. However, a slightly smaller portion (44%) of the industries have quality control throughout the management of the industry. Of the industries surveyed, a percentage of 56% has a quality control only in the production phases.

The fourth question comes with the intention of knowing if the industries seek partnerships to solve problems related to technologies (production, management, information technology). Figure 01 shows the existence of partnerships, on the part of the researched industries, to solve technological problems.

The answers point to a portion (44%) of respondents who seek support for technology-related issues at the Commercial and Business Association of the municipality. Of the other partnerships, a part (33%) seeks partnerships with service and technical assistance companies in the private sector and another group (33%) sees support from the "S" system (SENAI, SENAC, SEBRAE, SESC, SESI). It is noticed that the researched industries do not carry out partnerships, focused on technological solutions, with universities and/or higher education institutions.

A portion (45%) of the industries use machines and equipment that range from 4 to 7 years of age in their production, and 22% of the respondent industries use machines and equipment with an average age of 1 to 3 years, that is, about 70 years old. % of industries seek to keep up to date with their machinery and equipment technology, while 33% of industries make use of machinery and equipment already depreciated in accounting.

Another question raised was related to the origin of the main raw material used by the city's jeans industries, that is, the fabric. The results showed that the origin of the main raw material of the industries comes from the municipality (44%), from other states (44%) and from abroad (12%).

The seventh and eighth questions in the production area are related to limitations for expanding production. About 30% of the respondent industries reported that there are no limitations to expand production. Most (70%) of the industries indicated the existence of limitations to expand production. Respondents identified physical space (3), machinery and equipment structure (3), working capital (2) and labor qualification (1) as limiting factors.

4.2.3 Marketing Dimension

To characterize the industrial sector of jeans making in the municipality of Quedas do Iguaçu - PR in the marketing area, the fourth block was prepared with 6 questions. The first question raised concerns the main selection criteria for choosing suppliers. The responses identified price (3) as the main criterion, followed by delivery time (2) and the quality of the raw material (2). Other elements were observed by the respondents, such as service (1) and payment conditions (1).

The second question of the marketing dimension block asked whether the industries have customer service and which channels are used to carry them out. The results showed that most (70%) of the industries do not have this service, while 30% of the industries provide the service on their own.

Another issue referred to the market coverage of the industries. The market coverage of the majority (90%) of the industries is national, while the performance in the domestic and foreign markets corresponds to around 10% of the respondent industries.

In the fourth question of the marketing block, in which more than one answer was possible, it was asked about the channels used to sell the products. The answers brought a diversity of channels, including the use of own store, commercial representatives and industrialization by order, which were indicated by 33.3% of the respondent industries. Wholesale and retail were representative for 22.2% of the indications, and finally, the respondents indicated the use of own sellers (10%).

In the fifth question, it was asked about the main competitors of the city's jeans industries. The responses of the respondent industries showed that 56% of their competitors are companies located in and around the municipality, while 44% of their competitors are national companies.

The last question of the bloc was aimed at finding out if the industry has expansion plans for the medium and long term. According to the answers presented, about 80% of the industries have expansion plans, whether medium or long-term. The others responded negatively on the matter.

4.2.4 Dimension interaction with public authorities and support agents

In order to characterize the industrial sector of jeans making in the city of Quedas do Iguaçu - PR regarding the interaction of the jeans industries with the government and support agents, the fifth block was prepared with 4 closed and 2 open questions.

The 4 closed questions sought to know the level of satisfaction of the industries in relation to the public power at the municipal and state level, and in relation to the third sector (ACIQI, SYSTEM "S). In the first question, in relation to the municipal government, the majority (55.6%) of the respondent industries showed that there are no links with the Municipal Government of Quedas do Iguaçu - PR. About 22.2% of the respondent industries were satisfied, 11.1% were not very satisfied and 11.1% were indifferent as to the level of satisfaction. The answers signaled a certain indifference, in the respondents' perception, regarding the presence of the public sector.

In relation to the State of Paraná, 22.2% of the industries were satisfied, while 11.1% were dissatisfied. The majority (66.6%) of the respondent industries showed that there is no link with the State. The answers were similar to the question related to the municipal government. As for the level of satisfaction of the industries in relation to ACIQI, the answers brought greater diversification in the results. About 34% of the respondent industries showed that there are no links with ACIQI, 22.2% were dissatisfied, 22.2% were indifferent as to the level of satisfaction, 11.1% were satisfied and 11.1% were not satisfied. Regarding the "S" system (SENAI/SEBRAE), again the majority (56%) of the respondent industries showed that there are no bonds, about 33% were satisfied and 11% were dissatisfied.

The last two questions of the fifth block were open questions. Assuming a possible organization of the sector, whether in a possible APL or even an associative network in the sector, respondents were invited to explain about possible benefits of an association. A small portion (22%) of the respondents understand that there would be no immediate benefits to the sector, with a possible associative formation. It was not possible to identify in the content of the answers, possible explanations that would justify the positions of these respondents.

On the other hand, the majority (78%) of the respondents understand that there would be benefits for the sector, such as the formation of an associative entity. In the answers, possibilities were indicated that would be provided, including technical and

specific training of manpower; assist in the search for public subsidies for investment in technology, as well as working capital resources for start-up industries; and promote interaction between managers (industry leaders) and public actors with an interest in local development (trade associations and public bodies).

The second open question and the last of the block, asked if the city's jeans industries would be partners in a local development project for the market segment, envisioning an increase in productivity and competitiveness, working cooperatively with class organisms, government agencies, financial institutions, educational institutions, among other development agencies. The second part of the question asked about the respondents' expectations regarding the project.

About 70% of the responding industries would be partners in a project for local development. Approximately 20% of industries responded that membership would depend on the project presented, while about 10% responded negatively to partnership. Of the industries that responded positively to the local development project, they expressed expectations regarding innovative ideas, solutions to problems for the sector, expectation of growth and generation of more jobs through the project.

To investigate the relationship between the industries of the jeans making sector in the city and the interaction with the government and support agents, three interviews were carried out. Two interviews were carried out with ACIQI, one with the person responsible for the executive management of the association and the other with the director of regional affairs of ACIQI. With the municipal government, interviews were carried out with the current secretary of industry and commerce and the other with the head of strategic affairs.

4.3.1 Perceptions of ACIQI (Support Agent)

First, the interviewees were asked about the number of companies in the industrial sector of jeans associated with ACIQI and what difficulties they encountered in associating these companies with the entity. Most (62%) of the industries installed in the municipality of Quedas do Iguaçu are associated with ACIQI, that is, most of them seek to work in an associative way.

As for the difficulties encountered by ACIQI in associating the industries, since there is a percentage of approximately 38% not associated, factors such as communication and difficulty of access to entrepreneurs were mentioned; the characteristics of the demands being of a political nature; cultural issues insofar as representatives of associated companies do not understand that working in an associative manner can contribute to the development of the company.

A third question asked the interviewees about the level of cooperation and interrelationship between the jeans making industries in Quedas do Iguaçu. In response, respondents mentioned that in recent years there has been an evolution in terms of interrelationships, as they have come to see the competitor as a partner. Also, due to having some suppliers and customers in common, they started to hold meetings between them, they even created a sectoral nucleus with the help of ACIQI. Although intercooperation in the sector is low, it is clear that there is an existing and evolving interrelationship.

In the fourth and fifth question, the interviewees were asked about the quality of the specialized infrastructure available in the sector to support and promote the development of the jeans industries, and if there is any demand from the jeans industries of Quedas do Iguaçu with the government regarding the installation of companies supplying raw materials or inputs in the municipality.

According to the interviewees, regarding the specialized infrastructure, public transport for workers and the sheds located in the industrial park are provided by the municipal government through lending contracts. But there are difficulties regarding the available infrastructure, as the sheds were not built in a planned way according to the needs of the branch. Other problems are related to safety, lighting and bus stop for employees.

The infrastructure difficulties, according to the respondents, are linked to the need for reciprocal actions, whether from the city hall that once offered greater support, or from industries, which limit their investments in sheds, for example. Regarding the demand of the jeans industries of Quedas do Iguaçu with the public power, regarding the installation of companies supplying raw material or inputs in the municipality, the sector

still does not have the strength to make these supplying companies install themselves in the municipality.

The sixth and seventh questions were related to the flow of production from the city's jeans industries. When asked if there is any distribution channel in the municipality, the interviewees responded that they were not aware of the existence of a specific channel. The information we have is that the outflow is carried out by the industry itself. When asked if there are cooperation partnerships between the government and the sector to sell the products, they believe that this type of partnership does not exist.

In the eighth question, the interviewees were asked if there is any public or private body in Quedas do Iguaçu - PR responsible for advising the jeans industries regarding technical standards and new technologies. In response, respondents mentioned that SEBRAE has a service point in the ACIQI and its advice is focused on the management issue. SENAI acts punctually when requested to carry outcourses for some companies. Therefore, only private institutions and with little participation.

Another question investigated the level of integration/relationship between the textile industry and technical and higher education institutions in the region. The interviewees responded that the relationship with educational institutions is low, which needs to be improved, because due to the lack of knowledge of what these institutions can offer to industries, the opportunity cost is very high. What exists are partnerships with SENAC, but very little explored.

In the tenth question, they were asked about the existence of public or private support institutions (Banks, Universities, Technical Schools, Others) in the municipality, either with financing or educational lines. According to the interviewees, there are specific lines of financing through ACIQI with Fomento Paraná, CRESOL, SICOOB, SICREDI and BNDS. For educational support, through ACIQI, companies have access to the S system (SEBRAE, SENAC, SENAI), only private institutions, but the City Hall never refused.

The eleventh answer concerns the interviewees' assessment of the current stage of the relationship between municipal public management and the industrial sector of jeans making, in the municipality of Quedas do Iguaçu - PR. Respondents consider it "good", mentioning that in addition to the transport of employees, provided free of charge by the

city hall, and the sheds on loan to the jeans industries, the current public management is open to meeting the demands.

In the twelfth question, they were asked about the benefits that an associative entity, business, associative and cooperative class organization, should provide for the municipality or for the segment that its entity represents. For the interviewees, the formation of these entities strengthens the relationship with the public power, they manage to train managers and employees of associated or cooperative companies.

Respondents observed that to achieve the benefits of reorganizing industries into an associative entity, there are some aspects that need to be worked on, such as understanding the demand of industries and the difficulties in meeting them. The interviewees added that they had already started a partnership between ACIQI, SENAC, entrepreneurs in the sector and the municipal government to create the school factory, aimed at the industrial sector of making jeans. ACIQI, together with entrepreneurs in the sector, would provide the machines, SENAC would provide labor and the prefecture will pay for the investment, but in the face of the pandemic, the project is at a standstill.

The last question sought to verify the possibility of ACIQI to ally itself with other local actors, in order to promote local development through the industrial sector of jeans making. Still, the second part of the question referred to the expectations of the interviewees about the possible formation of an APL. Respondents responded that forming partnerships, not measuring efforts to promote the development of industries and preparing entrepreneurs for the market are the goals of ACIQI. The expectation regarding the alliance between the local actors for the formation of an APL is high, because it would be the end of a culture that the entrepreneur does not need to associate to develop, still an expectation of growth of the sector because there are other experiences of APLs that have had success.

The interviewees consider it essential for the functioning of an APL to understand the concepts related to associativism and to be clear about the benefits of intercooperation on the part of the business sector. Therefore, knowing the propositions and benefits brought by the formation of APL, whether in the development of the sector's industry, the company alone and the added value for local and regional development.

The director of regional affairs at ACIQI added that he had experienced some APL experiences in other cities in Paraná, such as the Baby Fashion APL in Terra Roxa - PR, which started with small factories in the houses, then first becoming the first of the segment in the state of Paraná, currently being the largest in Brazil.

4.3.2 Perceptions of municipal public authorities

The interviews with the municipal government were carried out with the current secretary of industry and commerce, Sebastião Quadros, and the head of strategic affairs, Emerson Prado. First, it was asked about the existence of intercooperation between the industries of the city's jeans sector and the level of cooperation and interrelationship. In response, in the opinion of the municipal public agent, since the creation of the industries there has been good communication between these actors.

In the next question, the interviewees were asked about the quality of the specialized infrastructure available in the municipality, to support and promote the development of the jeans industries. For the interviewees, on the part of the City Hall, only the sheds were provided, advances that occurred were on the part of the entrepreneurs. According to the interviewees, the current management intends to improve investments in the structure regarding land, flow, support for the qualification of labor and support for the employee, such as the creation of the popular restaurant.

Another question, if the City Hall was aware of, the existence of any demand from the jeans industries of Quedas do Iguaçu with the government regarding the installation of companies supplying raw material or inputs in the municipality. In response, the interviewees informed that the Municipal Government is aware of this demand and that the supplier companies see Quedas do Iguaçu as a market opportunity. Based on this perception, the City Hall is planning to bring the entire chain of the jeans sector, for example, button, fabric and thread companies.

Another question was about the existence of a partnership between the municipal government and industries in the jeans sector, even if the municipality has any logistics channel to sell the sector's production. According to the interviewees, there is a small partnership through the provision of sheds on loan. Regarding the logistics channel, the municipality does not have this channel, but it has been in the past. Still asked about the

existence of partnerships between industries for the disposal of products, according to one of the interviewees, he is aware of the existence of a conversation around this topic.

Another question was the existence of a public or private body in Quedas do Iguaçu responsible for advising the jeans industries on technical standards and new technologies. In response, the agents informed that there is no specific body, but that the City Hall is creating a technological center in partnership with the secretariats to improve production.

Respondents were asked about the level of integration/relationship between the jeans industries and technical and higher education institutions in the region. Respondents reported that the City Hall is seeking to increase ties between the sector and institutions in the municipality and region. Some institutions were mentioned, such as: Instituto Federal do Paraná (IFPR) — Campus Quedas do Iguaçu, SENAI and the future Technological Center of the municipality.

As for the question, about the governmental or private institutions that support the sector, whether in terms of financing or educational support, existing in the municipality. Respondents responded that the industries in the sector have access to lines of financing from the National Bank for Economic and Social Development (BNDES), Banco Regional and Banco da Mulher. From the teaching lines, according to the interviewees, the industries have access to SENAI/SEBRAE, IFPR – Campus Quedas do Iguaçu, and in the future to the Technological Center.

The next question asked municipal public agents to evaluate the relationship stage between municipal public management and the textile industrial sector, currently in the municipality of Quedas do Iguaçu - PR. In the assessment for one of the agents, the relationship with the current management is at an early stage, but it can already be considered as good and there has been an attempt to achieve the best. In the opinion of the other agent interviewed, the relationship can be considered excellent, as the businessmen have direct contact with the secretariats and with the mayor.

Another question asked the interviewees regarding the perception of the benefits that an associative entity, a business, associative and cooperative class organization, should provide for the municipality and/or for the industrial sector of jeans making. In the interviewees' point of view, the benefits would be great, benefits for the entrepreneur

and the worker, as it would generate greater training of manpower, an increase in the generation of jobs, income generation and that is the path to be followed.

The last question was whether the Municipality of Quedas do Iguaçu would be a partner in a local development project for the industrial sector of jeans making, envisioning increased productivity and competitiveness, working cooperatively with class bodies, companies, government agencies, financial institutions, educational institutions, among other development agencies and what would be the expectation.

The municipal public agents replied that the Municipality of Quedas do Iguaçu - PR would be a great partner in a local development project and that the sum of institutions and the creation of new policies for this sector is of great importance. As for expectations, according to the interviewees, the best is always expected, as the current management aims and plans this, to achieve local development.

4.4 Confrontation of favorable and unfavorable points

In order to confront the favorable and unfavorable points of the formation of an APL with the diagnosis of the interactions of the industrial sector of making jeans in Quedas do Iguaçu-PR, the confrontation of the field research with the proposition of the literature was carried out, that is, a triangulation of the analyzed dimensions: industries, public and support sectors, and literature.

The base literature for carrying out the confrontation of favorable and unfavorable points for the formation of an APL in Quedas do Iguaçu - PR, was based on theoretical assumptions (BRITTO, 2002; SCHIMITT et al., 2004; SANTOS, DINIZ AND BARBOSA, 2004; CHIOCHETTA, 2005; FERREIRA, 2006; BONAM, RAUBER AND CARVALHEIRO, 2014; MARINI and SILVA, 2014; SEBRAE, 2014; PATIAS et al., 2017).

According to Chiochetta (2005), for the formation of a local development project, along the lines of an APL, it is necessary to have some indispensable conditions, such as:

a) Possess collective identity signs (signals social, cultural, economic, political, environmental), maintain or have the capacity to promote agreement in terms of development expectations;

- b) Establishment of partnerships and commitments to maintain and specialize the investments of each of the actors in their own territory; and
- c) enable economic and social integration at the local level.

The characterization of the researched industries shows a significant number of companies and employees around a main activity, represented by a high degree of geographic concentration (QL 7.66). These variables (number of companies and jobs) are essential for the identification/formation of an APL (BRITTO, 2002; CHIOCHETTA, 2005; FERREIRA, 2006).

Regarding the area of human resources, an opportunity can be diagnosed to form partnerships between industries, public authorities and the third sector, to promote training for the qualification of the workforce (CHIOCHETTA, 2005). The survey results indicate that about 90% of the industries promote the training and qualification of their workforce using the company's own employees.

The sector's diagnosis showed that the public authorities and support agents have already had an experience regarding the training of manpower in partnership with some industries in the municipality and seek to increase intercooperation with the creation of the Technological Center in Quedas do Iguaçu in partnerships with IFPR — Campus Quedas do Iguaçu and "S" system (CHIOCHETTA, 2005).

Thus, to the extent that the government and support agents seek to strengthen the industrial sector of jeans making in Quedas do Iguaçu - PR, another favorable point for the formation of an APL is presented, because for the formation of an APL, interaction between companies, public authorities, support agents (technological centers, universities, associations) is essential (CHIOCHETTA, 2005; FERREIRA, 2006; MARINI and SILVA, 2014).

The fact that more than 60% of the jeans industries are associated with ACIQ I is a positive point in the formation of an agglomerate in the form of an APL. Chiochetta (2005), Ferreira (2006) and Marini and Silva (2014), highlight the importance of associations for the formation of an APL. The point to be addressed would be linked to the percentage of 40% of industries not yet linked to ACIQI and the mitigating factor of expressing difficulties in associating these industries (FERREIRA, 2006; PATIAS et al., 2017). SEBRAE (2014) observes that in the formation of an APL, the union and effort of

the participating actors is necessary. In this sense, the restriction on the link to ACIQI, by companies in the sector, can configure a possible future limitation (PATIAS et al., 2017).

When characterizing the sector in terms of production, one can see the concern of companies in the search for a solution to their problems of a technological nature, albeit in an individualized way. Research data show that about 70% of industries have a specific quality control department. Thus, it is assumed that the researched industries pay attention to remain competitive in their market (FERREIRA, 2006).

In relation to production, the limiting factors for increasing production are the machinery/equipment structure and the physical structure. This demand is perceived by the municipal government, which plans to build more sheds, improve the boarding and disembarkation points for passengers and a popular restaurant for workers. Also, bring companies from the jeans production chain to the city, as about 70% of the main raw material originates in other states/abroad.

Since price and delivery time are the main criteria for the selection of suppliers, as observed by the industries surveyed in the approach to the marketing area, government actions can strengthen the sector. In this way, the efforts of the municipal government, which plans to help resolve these limitations and meet these sector demands, can become another favorable point for the formation of the APL (CHIOCHETTA, 2005; FERREIRA, 2006; SEBRAE, 2014).

The diagnosis, still in relation to the market environment, showed that the surveyed industries do not have a set of institutions that supply services, raw materials, inputs, machinery and equipment. In this way, there is a limitation to the consolidation of an APL, reflected in the demands to be met in relation to this logistical process (CHIOCHETTA, 2005; FERREIRA, 2006), consequently the industries act individually in the commercialization and flow of products, burdening their budget with their own employees and their own transport, and may have a more advantageous option when they work together.

The interaction between companies around the sector brings competitive advantages, reducing their costs and increasing profits (BRITTO, 2002; SANTOS, DINIZ AND BARBOSA, 2004; FERREIRA, 2006). The characterization of the researched sector showed that about 50% of its competitors are not in its surroundings, thus

presenting another opportunity for joint work/partnerships between the city's jeans industries, as the strategic alliances between the companies are fundamental for the successful formation of an APL (FERREIRA, 2006). But the current environment played by the industrial sector of jeans making, characterized by an incipient intercooperation, can be considered an unfavorable point for the formation of an APL (FERREIRA, 2006; PATIAS et al., 2017).

The diagnosis of the sector shows that most of the industries that make up the sector have no ties with the state, municipal government and with support agents. Furthermore, the data from the respondents indicate that the new municipal management, together with support agents, aims to meet the demands of the sector and invest in the relationship and cooperation with the city's jeans manufacturing sector.

The survey showed that the majority (90%) of the city's jeans industries responded positively to a project for the development of the sector and city, in partnership with the government and support agents (associations, educational and financing institutions). The government and the support agent (ACIQI) also responded positively and are already working in this direction, to strengthen the sector through partnerships.

The respondent industries, ACIQI and the municipal government believe that a local development project would generate jobs and income, economic growth in the sector, improvement in the training of manpower through specific courses for the area, means of incentives for industries beginners, physical and technological structure, support in specific difficulties of managers and strengthening for interaction between these actors. The support and efforts of the municipal government and support agents (ACIQI) to achieve interrelationships between industries are other favorable points for the formation of an APL in the industrial sector of jeans making in Quedas do Iguaçu - PR. Still,

Table 03 demonstrates the favorable and unfavorable points for the formation of an APL of the industrial sector of making jeans in the city of Quedas do Iguaçu - PR, through the triangulation of the diagnosis of the industries, public sector and support agents with the literature.

5 FINAL CONSIDERATIONS

The work began with the purpose of analyzing the environment for the formation of an APL in the industrial sector of making jeans in the city of Quedas do Iguaçu-PR The research initially obtained the geographic concentration and sequentially characterized the industrial sector of making jeans in the city of Quedas from Iguaçu. According to Ferreira (2006), the configuration of the concentration of organizations in the same sector, the dynamism and cooperation between companies are fundamental elements for the formation of the APL From the perspective of analyzing the environment for the formation of an APL, the existing relationships were investigated. between the industrial sector of the municipality, the municipal government and the Commercial and Business Association of Quedas do Iguaçu. With the data collected,

Initially, it appears that the characteristics of the industrial sector of making jeans in the city of Quedas do Iguaçu - PR resembles a cluster (SCHMITZ, 1999; PORTER; 1999; AMORIM, 1998), due to its interrelationship, although incipient, among the industries in the sector. Driven by the research proposal, it is extracted that the current environment presents itself at least as an opportunity to be explored. Regarding the measurement of the geographic concentration of the industrial sector for making jeans in Quedas do Iguaçu - PR, there was a concentration of economic activity in the high municipality (QL = 7.66), with a higher concentration of this economic activity in the state. The result, brought by the locational quotient, identifies a positive alignment for the formation of an APL, according to parameters confirmed by the literature Zissimos (2007).

In the characterization of the industrial sector of making jeans in Quedas do Iguaçu-PR, it was verified the presence of investments and efforts on the part of the entrepreneurs for the development of these areas, although in an individualized way. Furthermore, the investments made by the industries in these areas are still not enough to meet the demands. This scenario is already perceived by the current management of the municipal public power, which already forwards projects to meet the demands of the industries.

The interaction of industries with the government and support agents is still low. In relation to the municipal public power, there are sheds available in lending and transport of employees of the industries. Within the scope of the support agents, there is

interaction of a portion of the industries with the ACIQI (support agent), which make use of all the services provided by the association. It was also found, another small portion that uses the services of SENAI (support agent), while there is a field to advance in relations with universities and credit institutions.

One of the research stages investigated the existing relationship between the industries of the jeans making sector and the interaction with the government and support agents. Analyzing it from the assumption that public and support agents have a concern with local development, it was found a resumption of interaction on the part of support agents (ACIQI) and by the current municipal management, due to new projects for sector development. The strengthening of the interaction between the Jeans industries with the municipal public sector and support agents, imbued in the creation of projects for the development of the sector, presents itself with favorable points for the formation of an APL.

At the end of the research process, the favorable and unfavorable points of the formation of an APL were confronted with the diagnosis of the interactions carried out internally (management) and externally (public authorities and support agents). Most of the points raised are favorable to the formation of an APL in the industrial sector of making jeans in the city of Quedas do Iguaçu - PR. The unfavorable points, for the most part, will cease to exist as the interaction and intercooperation between the industries in the sector, the municipal government and support agents are strengthened.

The challenges for the formation of an APL of the industrial sector of making jeans in the city, go in the direction of sensitizing the entrepreneurs for the joint work between the industries, support agents and public authorities. Through the methodological procedures and the researched data, it was possible to answer the research question, which focused on knowing the environment for the formation of a possible APL in the industrial sector of jeans making in the city of Quedas do Iguaçu - PR.

In this way, answering the research question, after the analyzes carried out, having as a background the industrial sector of jeans making in the city of Quedas do Iguaçu-PR, it is extracted that the feasibility of an APL will depend on the intercooperation between the jeans industries through a sector governance mechanism and the direct participation of public authorities and support agents interacting with the sector in order to maintain

the formation and maintenance of a possible APL. Finally, joint efforts of these actors will be necessary to mitigate the unfavorable points for the formation of the APL. The conclusions are in line with the literature (BRITTO, 2002; LASTRES AND CASSIOLATO, 2003; SCHIMITT et al., 2004; SANTOS, DINIZ AND BARBOSA, 2004; CHIOCHETTA, 2005; FERREIRA, 2006; BONAM, RAUBER AND CARVALHEIRO, 2014; MARINI and SILVA, 2014; SEBRAE, 2014; PATIAS et al.,

This study suggests the need for further research, in order to expand the number of actors involved in the research, such as, for example, extending the survey to other companies in the sector, as well as more associative entities, credit and educational institutions in the municipality and region. , "S" system (SENAI, SEBRAE, SENAC, SESI and SESC). In the public sphere, involve municipalities around, for the transformation of the industrial sector of jeans of Quedas do Iguaçu - PR in an APL, which can bring benefits to the municipality according to the literature used by the present research.

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