

Management skills: The importance of academic training for entrepreneurs in micro, small and medium-sized enterprises



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ABSTRACT

The objective of this study was to verify the correlation between academic training and the success of entrepreneurs and managers in the administration of micro, small, and medium-sized enterprises (SMEs), seeking to highlight the skills that influence the positive results of these enterprises. To theoretically support the study, bibliographical research was carried out on education and managerial skills (knowledge, skills, and attitudes) necessary for entrepreneurs and managers to manage their businesses. A survey was

applied to a random sample stratified by sectors (Construction, Industry, Commerce, Services, Agriculture) and size made up of 391 companies active in the state of São Paulo, Brazil, with a confidence margin of 95%, collecting the perception of entrepreneurs or senior executives, to verify the importance they attach to academic training and managerial skills in conducting and continuing their businesses. Among the results, when analyzing the average ($p = 0.538$), it was shown that university education alone is not considered a determining factor for the success of SMEs. However, the general assessment allows us to conclude that the maintenance of micro, small, and medium-sized companies in the market, their progress and evolution are related to the level of education and development of skills of entrepreneurs and managers involved in business administration, pointing out They emphasize that adequate training and continuing education processes focused on managerial skills are factors that positively influence the success of companies. A limitation of the study is the geographical limitation to a specific region of Brazil, for which new studies are suggested in other regions of the country.

Keywords: Education, University, Company, Competence, SMEs.

1 INTRODUCTION

Education is of fundamental importance to improve the human development index of a nation and, therefore, to better understand how the process of rise and fall of companies is, a closer look at this sector is necessary. Therefore, the education that administrators have received in their university training has a direct and substantial impact on the sustainability and success of small and medium-sized businesses.

Education as a general form has a great influence on society and especially on human beings and is a way of identifying and promoting people in all social media. In this way, the University must



promote the human and professional education of its students, preparing them for their responsible and constructive role in society and further, promoting interaction with society, through scientific, technological, artistic, and cultural dissemination and community development, in tune with social demands.

A company needs people prepared with skills, abilities, and attitudes to be able to face the challenges that the contemporary world presents, with constant changes and increasingly strong globalization in all areas.

In this context, this research, whose results were statistically analyzed, aimed to study the relationship between professional development and educational training of entrepreneurs and managers of micro, small, and medium-sized companies established in the state of São Paulo, Brazil.

2 THEORETICAL REFERENCE

According to Drucker (2018), success cannot be permanent. Companies are human creations that lack real permanence, that must survive beyond the life of their founder, contributing to the economy and society. The author concludes by saying that perpetuating the company's basic task of entrepreneurship and the ability to achieve it may well be the ultimate test for its management.

The leaders, administrators, and managers of small and medium-sized companies are affected by the limitations of this type of organization in an increasingly competitive business environment. They need to overcome their resource limitations and innovate sustainably and adopt possible learning mechanisms and actions, in the reality of SMEs. Bankruptcy in these types of companies is a real risk and is not limited to business in Brazil. On the other hand, the reasons for the success of most organizations, in general, are commonly related to the ability of these companies, in the person of their administrators, to innovate in the management process, in the use of modern technologies, adding skills and new knowledge or recombining existing ones to go beyond what the market already offers (Tavares et al., 2018).

It should be noted that the training of managers within the small business has proven to acquire new skills and creates alternatives for the individual in terms of career and life. Skills acquired by the manager to facilitate the execution of their tasks enrich their understanding of life: people with the knowledge and skills developed become self-sufficient and contribute to the success of the business (Pelissari; Gonzalez; Vanalle, 2007).

Degen (2005) pointed out that lack of knowledge and management, marketing, financial and technological skills are the main reasons for business failure. These are the most important reasons: lack of business experience; insufficient knowledge of the market; the availability of capital to start the business; product quality problems; Incorrect location; management errors in business development; excessive use of fixed assets; delinquent creditors; marketing and sales inefficiency;



excessive centralization of the management of the employer; poorly planned growth; wrong business attitude to the company; Error in the evaluation of the competitive reaction; rapid obsolescence of products; incorrect sales approach; product production problems; Pick a bad time to start the project; planning errors or failure of the company, such as projected sales, costs, and cash flow.

Barringer et al. (2005) maintain that entrepreneurs with a little experience in the sector come out against others without experience. Like the authors themselves, this is because the insights gained help reduce risks, and because access to the network of relationships creates an advantage.

Motta, Pimenta, and Tavares (2006, p. 9) indicate that [...] in the world of administration the separation between academic and professional practice takes on an even more serious and paradoxical aspect. Because the administration is essentially practical and, when it is theorized, it must serve the improvement of the practice. In the context of the global crisis in which a professional is required who understands the company as a whole and is conducive to change.

Today we know more than demanding results you need to create a healthy and stimulating environment for people to produce more and better. This role goes directly through the manager's ability to establish positive relationships with his subordinates and foster team spirit. Chér (1990) attributes the mortality of small businesses to the following factors:

- a) Lack of experience in the business sector: lack of information and prior knowledge leads to a lack of managerial competence, lack of strength, and inability to take risks.
- b) The sandwich effect: companies buy from large suppliers and sell to large customers and, therefore, prices end up being imposed both by the supplier of the raw material and by the buyers of the final product. In this situation, the company ends up being "devoured".
- c) Tax legislation.
- d) The low volume of credit and financing.
- e) Unqualified labor.
- f) Excessive attention to personal goals.
- g) Obsolete methods, team, and company spirit.
- h) Lack of communication between partners, employees, suppliers, and customers.

Amatucci (2000) emphasizes that the new professional should have increased powers, encompassing interdisciplinary, leadership, technical and political skills, and understanding of the company, in addition to maintaining ethical professionalism. He takes an active role in organizations, increasingly disputed.

For Bahry and Tolfo (2004, p.42) "the word competence has given rise to different meanings in the world of work, focusing more on people (knowledge, skills, and attitudes) and others on functions (results)". Also recalling that the development of management skills seeks to align with the broader objective of making organizations better prepared to face current and future challenges,



especially small ones, which are more susceptible to change. Since competition effectively only existed at the time of adding economic value to the organization and the social value of the individual (Resende, 2000; Sveiby, 1998).

Culturally, the small company exercises the administration based on the figure of its owner-founder (Pelissari, 2007). Still, pelissari (2002) also points out that the success of a small company is strictly on the management capacity of its administrator and the creativity to establish norms and create resources to intensify the strategy and the competitive position of the company.

For Barone (1998), the search for training becomes an increasingly differentiated element of quality professionals, but the professionals who stand out are those who, in addition to the training of seeking information, that is, the learning process during all life traces.

Zabot e Silva (2002, p.89) states that "All these factors lead to the need for a change in the profile of administrators, and it is worth pointing out the fundamental role that universities play in their education." Managers must have a minimum of preparation to face the intellectual capital professional, they must be stoned for that.

For Dessler (2003, p.152) "Many organizations have offered seminars and conferences aimed at development managers (...) that are provided by universities and high schools"

Professional training in today's university: from education to self-education in terms of autonomy, we defend that it concerns a level of personality development, which supposes, first, a maturity in the intentionality of the subject in his personal formation and professional, which transcends education to self-education.

Coopers & Lybrand (1997) state that any process of change only occurs when the way of thinking and acting of the members of the organization changes.

A well-known concept of competence was developed by Boyatzis (1982), which is a prominent characteristic of a person that is coincidentally related to good or excellent performance in a specific job in a specific organization. According to Parry (1996), competence refers to the relationship between the knowledge, skills, and attitudes that affect most of a task (role or responsibility) and is directly related to performance that can be measured against well-accepted parameters and can be improved through training and development. Fandt (1994) addresses competencies that are linked to social skills, and include "Learning" and "Problem Solving".

There is also a constant debate on the impact of qualification and education in labor relations, especially when qualification and training of a professional nature become more difficult to define their concepts.

The great challenge of Manfredi (1998), is to reconstruct and define mainly concepts and meanings to the topics mentioned so far since they are of great importance for labor relations in the contemporary era.



Perrenoud, (2000, p. 15) states that competence is the ability to mobilize various cognitive resources to face different situations based on four aspects:

- a) competencies are not themselves knowledge or attitudes, but they mobilize, integrate, and orchestrate these resources;
 - b) this mobilization is only relevant in a situation, each situation is, even if it can be treated analogously to another, they are already found;
 - c) the exercise of competence involves complex mental operations involving thought schemes to determine (consciously and quickly) and maintain (effectively) an action relatively adapted to the situation;
- the professional skills built-in training, but also the taste of a teacher's daily navigation, one work situation to another.

Bergamini (2006) deals with the issue of competency leaders and managers and makes an interesting distinction between the role of management and the role of business leaders. According to the author, the administrator or manager is the one that is the most analytical, structured, and organized side, it is the professional that guarantees the identity of the organization over time. But the leader is a qualified professional to change the status quo of the organization and is characterized as a "creator's vision", flexible work, directly with the individual capabilities of his subordinates. "Leaders, therefore, devote much of their attention to people and not to structures or systems.

The same author points out that some people do better in administrative positions, while others feel more comfortable in positions that require their skills as leaders. "The great challenge before us for organizations today is to find out what is the main difference that identifies a person to any position." (BERGAMINI, 2006, p. 65).

Le Boterf (2003) establishes that each specific professional situation requires personal skills to be acquired and that these provisions require the ability to analyze and diagnose, a good knowledge of the procedures and information devices, playability, and decision-making. The author complements by making a distinction between worker and professional: "The worker is expected to carry out training to perform a job; he is expected to put into practice professional skills to manage a professional situation." (Le Boterf, 2003, p.25).

Still, Robbins (2002) highlights the need to become an effective manager, so it is necessary to develop managerial skills. Those competencies within small businesses are organized into two groups: knowledge and appropriate skills. Knowledge is so comprehensive. Appropriate skills apply to understanding, and, for the most part, the knowledge base is derived from management functions: planning, organizing, leading, and controlling (Robbins, 2002).

The transition from the industrial society to the knowledge society was responsible for the discomfort that has never learned enough, so the contradictions, inconsistencies, dilemmas, and



polarities that were previously avoided, now, should be encouraged, and exploited, so from the differences, a collective, deep, and qualified position can be consolidated (Takeuchi; Nonaka, 2010).

The learning process consists of behavior change motivated by the incorporation of new habits, attitudes, knowledge, and skills (França, 2010). This process must be structured on the principle of information exchange. Senge (2010) considers that it is essential that there is a relationship of exchange of experiences so that knowledge circulates in the environment of the organization and allows group learning. Also adds Bitencourt (2004), the form and frequency of the interactions should be systematized, so that at a given moment, they happen spontaneously. The challenge of making the organization a learning center seems immense, but "people are enthusiastic about knowledge [...] and its development is a natural process [...] since management allows and encourages [...] People are curious and naturally willing to learn and improve their skills "(Argyris, 2000, p. 84).

Learning, as a complex process, requires an epistemological analysis that facilitates focusing on the matter from the integrity of its determinants.

Organizational learning is a long-term development process, a tool for the formation and development of the subsystem, warns Chiavenato (2009). But it should be noted that knowledge management is a "commitment to continuous development" and unrestricted access to a given function or difficulty (Garvin, 2000, p. 51). In addition, attention must be paid to the efficiency of the forms of communication and interaction between people, because they must be clear, accessible, and efficient (TAKEUCHI; Nonaka, 2010).

According to the ideas of Skinner (2005), it can be said that learning is a change in the probability of response, and must specify the conditions in which it occurs. It is important to point out that the same author also assures that the execution of a behavior is essential, but not what affirms the existence of learning.

Trying to clarify his idea, Skinner (1972, p.4) states that "There are three variables that make up the so-called reinforcement contingencies so that learning is generated:

- (1) the time the behavior occurs,
- (2) own behavior and,
- (3) the consequences of behavior."

Learning for Vygotsky goes through a process of internalization of concepts. This "consists of the internal reconstruction of an external operation" (Vygotsky, 2007, p. 56). The author uses in all his work, concepts such as: cognition, mind, internal processes, higher psychological functions, and the intrapersonal process while the mental state, to explain the acquisition of learning.

Companies have been adhering to the great technological advance in all segments, and this requires qualified and competent labor.



When implemented in organizations in the last two decades of the last century, the new forms of production and the different models of work replacing the Taylorist and Fordist models raised numerous questions about the skills and qualifications of workers. Instead of a worker capable of understanding and executing standards, the new production systems began to demand initiative, flexibility, and self-management (Hirata, 1994).

In this context of the new requirements for the knowledge of workers, qualification seems to lose space in some academic and business areas for competence. These new requirements and the conceptual shift gave rise to discussions in several areas of knowledge: sociology (Ropé; Tanguy, 1997; Zarafian, 1998), education (Manfredi, 1999; Perrenoud, 1999), labor economics (Leite, 1994; Paiva, 1997.) and administration (Dutra, 2004; Fleury; Fleury, 2001; Ruas; Antonello; Boff, 2005).

For Ramos (2001), the notion of competence does not replace the concept of qualification with which it disputes space in the theoretical-empirical ordering of labor relations. This author uses the scheme offered by Schwartz (1995) to defend this thesis.

In this scheme, the qualification is presented in its three dimensions: conceptual, social, and experimental.

The conceptual dimension defines qualification as a function of registering formalized theoretical concepts and training processes, associating it with the value of diplomas and certificates. The diplomas legitimize the knowledge associated with them, guaranteeing status and remuneration to their holders.

The social dimension places qualification within the scope of the social relations that are established between the contents of the activities and their social recognition, referring them to collective classification grids. The social dimension is responsible for inserting the worker in a socio-historical context with others who share the same professional identity and category.

The relationship established between the conceptual records of activities formalized by diplomas and socially recognized titles and professional insertion made qualification a code of communication between professional categories and employers.

Rules for access and permanence in employment, career, and remuneration were historically built based on these codes.

The experimental dimension is related to the actual content of the work, to which the conceptual records and the tacit knowledge put into play in carrying out the work are related. In this dimension, the qualification of workers evolves due to the permanent accumulation of concrete work experiences and the acquisition of new knowledge and skills, through formal and informal means.

This evolution is also conditioned to the technical changes incorporated in the qualifications prescribed for the job. This incorporation is not always explicit but composes the flow of knowledge



that exists in carrying out the activities and is part of the complexity of social relations that characterize qualification as a synthesis between objective and subjective working conditions.

For Ramos (2001), competence does not replace the concept of qualification. There is a conceptual shift, as competence both reinforces and denies the existing dimensions in the concept of qualification. This displacement can cause losses of workers' historical conquests. To understand this shift, it is necessary to look at the two concepts in question. Although they are polysemic, in this work the hegemonic meanings given to the terms are considered. This operation aims to facilitate the understanding of the discussions promoted within the areas of knowledge mentioned above.

Professional qualification here is understood in two complementary approaches: the first, within the area of production and organization of work, which highlights qualification as a social relationship. Associated with the Welfare State, it emerged in response to the absence of social regulations in labor relations. Qualification, in this case, is understood in a context of conflict and negotiation between the different interests of capital and work. In this context, workers strive for their qualifications to be officially recognized within the job classification systems, to obtain social and financial recognition. The second, a quantitative approach, conceives qualification as a formal qualification, using it as an index of socioeconomic development, covering both the population's average schooling rates and the average length of time spent in school (Paiva, 1997).

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3 METHODOLOGY

The study had as its main objective the description of the characteristics of the academic formation and the competencies, skills, and attitudes of the entrepreneurs in the State of São Paulo, and to collect the information the necessary technique was used the collection of standardized data collection The data was understood through the field survey, through the application of a pre-established questionnaire, and systematic observation during the interviews that were carried out, as well as statistical data already made.

According to Gil (2017), descriptive research is the one whose main objective is the description of the characteristics of certain populations or phenomena. One of its characteristics is the use of conventional data collection techniques, such as questionnaires and systematic observation. They also stand out in the research whose objective was to describe the characteristics of the group's age, sex, origin, level of education, and state of physical and mental health, as well as the description of a process in an organization, the study of the level of entities care, survey opinions, attitudes, and beliefs of the population. Gil (2019, p.42) considers that there is a dynamic relationship between the real world and the true subject, that is, an indissoluble link between the objective world and the subject's subjectivity that cannot be translated into numbers. The interpretation of phenomena and the assignment of basic meanings are in the process of qualitative research. It does not require the use of statistical methods and techniques. The natural setting is the direct source for data collection and the researcher is the key instrument. It is descriptive. Researchers tend to analyze their data inductively. The process and its meaning are the focus points, a dynamic relationship with the real world.

In quantitative research, following the teachings of Richardson (2017), this method is characterized by using quantification both in data collection methods and in the treatment of these through statistical techniques, from the simplest to the most complex. more complex.

Qualitative variables were presented by frequencies and percentages. The quantitative variables were presented by their means, medians, standard deviation, and minimum and maximum values. The association between categorical variables was performed by Pearson's chi-square test or Fisher's exact



test according to the criteria of expected frequencies, according to Pagano and Gauvreau (2004). In the case of ordinal type variables, Kendall's tau test was performed according to Sheskin (2004).

Principal component analysis was used for the questions related to the characteristics of the administrators, using the varimax rotation method, according to Vieira and Ribas (2011). In addition, the internal consistency of the data was evaluated through Cronbach's alpha, according to Cronbach (1951). The level of significance adopted was 5% and the statistical analyzes were performed in the statistical software PASW Statistics 18 (SPSS for Windows v.18).

4 DATA ANALYSIS

The administrators responsible for the Small and Medium Enterprises (PYMES) of the State of São Paulo were invited to participate in this research. During the period from September 2015 to May 2016, the surveys were sent by e-mail to the managers of these companies. At the end of the study, 416 people sent their answers, corresponding to 371 companies. The calculated size is from 391 to 430 respondents (sample II) considering a margin of error of 5%.

The characteristics of the SMEs are presented in Table 1. With billing up to R\$ 360,000, it indicates that there are 214 companies and with a participation of 58%, it is noted that the majority have low annual billing. We consider that the participation of the Services and Commerce segments are the most participative with a representation of 84.1% and in a number of companies that are 312 of a total of 371 companies represents 84%.

Table 1 - Characteristics of the SMEs in the study.

<i>foundation period</i>	<i>n. (%)</i>	<i>Economic sector</i>	<i>n. (%)</i>
1902-1950	7 (1,9%)	Services	226 (60,9%)
1951-1970	13 (3,5%)	Trade	86 (23,2%)
1971-1980	23 (6,2%)	Agricultural	4 (1,1%)
1981-1990	46 (12,4%)	Industry	39 (10,5%)
1991-2000	90 (24,3%)	Building	16 (4,3%)
2001-2010	102 (27,5%)	Number of employees	n. (%)
2011-2016	90 (24,3%)	1-9 employees	222 (59,8%)
Billing in the last year (R\$)	n. (%)	10-24 employees	53 (14,3%)
R\$ 10.000 – R\$ 60.000	95 (25,6%)	25-50 employees	33 (8,9%)
R\$ 61.000 – R\$ 260.000	79 (21,3%)	More than 50 employees	63 (17,0%)
R\$ 261.000 – R\$ 360.000	40 (10,8%)	Average (SD)	41,2 (93,4%)
R\$ 361.000 – R\$ 1.000.000	55 (14,8%)	Median (min-max)	6 (1-490%)
R\$ 1.000.001 – R\$ 3.600.000	102 (27,5%)		

Source: Research (SD: standard deviation; min: minimum value; max.: maximum value).

About the number of employees, it is noteworthy that 59.8% of the companies employ from 1 to 9 employees, which means that the vast majority are small companies, and the average (standard deviation) points to 41.2 companies with a percentage of 93.4%.



Table 2 - Characteristics of the administrators of the SMEs in the study.

<i>Gender</i>	<i>n. (%)</i>	<i>Position/Function</i>	<i>n. (%)</i>
Male	255 (61,3%)	Director	77 (18,5%)
Female	161 (38,7%)	Manager	94 (22,6%)
Age group (in years)	n. (%)	Partner	124 (29,8%)
≤30 years	60 (14,4%)	Owner	97 (23,3%)
31-40 years	115 (27,6%)	other function	24 (5,8%)
41-50 years	88 (21,2%)	time in the company	Years (%)
51-60 years	92 (22,1%)	Average (SD)	10,7 (9,8%)
≥61 years	61 (14,7%)	Median (min-max)	8 (1-46%)
Time in office (in years)	n. (%)	Have you ever started and closed a business?	n. (%)
Average (SD)	10,4 (9,5%)	Never	254 (61,1%)
Median (min-max)	7 (0-41%)	One time	72 (17,3%)
Time of experience in the sector	Years (%)	Twice	40 (9,6%)
Average (SD)	17,8 (13,0%)	Three times	27 (6,5%)
Median (min-max)	15 (1-60%)	more than three times	23 (5,5%)

Source: Research (SD: standard deviation; min: minimum value; max.: maximum value).

The characteristics of the administrators of the SMEs of São Paulo point to a higher percentage of the Male Gender 61.3% against 38.7% of the Female Gender, and the age up to 50 years with 63.2%, which shows that they are very young to consider that up to 40 years represents 40%. As a function/position, it was revealed that 53.1% are partners or owners and since the average (standard deviation) points to almost 10 years (9.8), the time in the company, which is quite significant, and the average (standard deviation) of 9.5 years in the time in the position, which shows a certain longevity, and the average (standard deviation) of Time of experience in the sector shows that they are 13 years, which denotes a good experience, interesting observation is how much to the entrepreneurial spirit 61.1% never had the experience of being an entrepreneur, and 38.9% had several experiences in starting and closing a business.

Table 3 - Professional training of administrators of SMEs

<i>Career</i>	<i>n. (%)</i>	<i>Post-graduate course</i>	<i>n. (%)</i>
Management	168 (40,4%)	no course	222 (80,1%)
Accounting	20 (4,8%)	MBA	5 (1,8%)
Law	16 (3,8%)	master's degree	38 (13,7%)
Engineering	38 (9,1%)	PhD	7 (2,5%)
Psychology	14 (3,4%)	Postdoc	5 (1,8%)
Pedagogy	25 (6,0%)		
odontology	26 (6,2%)		
information technology	13 (3,1%)		
Economy	9 (2,2%)		
Technologist	32 (7,7%)		
Another university course	55 (13,2%)		

Source: Research (277 interviewees finished their university career).

The university education of administrators is a factor in professional development and success in the operation, growth, and permanence of SMEs as presented in Table 3. No significant association



was observed between the conclusion of the university course and the year of foundation of the company ($p = 0.538$) as a success factor.

University education is constituted as a determining factor for the operation, growth, and permanence of SMEs as presented in Table 5. A significant relationship was also not observed between the conclusion of the university course and the year of the foundation of the company ($p = 0.538$) as a determinant of longevity.

In Table 5, an important observation is that in the last 15 years, those who have completed a university education are 153, which represents 50.6%, versus 149, which represents 49.4%, with a complete education in the last century, and in Table 3 the percentage of 43.6% in postgraduate studies in the last 15 years.

The association between the training of SME managers and the company's operating time is presented in Table 2.

It is observed that from 1902 to 2016 there was always a growing number of administrators with a completed course (302) about those who did not complete the course (114), according to Table 4. However, it is possible to observe a higher percentage of administrators whose companies were founded in the period from 2011 to 2016 (Table 4).

Table 4 - Association between the professional training of administrators and the company's operating time.

Year of foundation	University course		Total n = 416	Value of p^t
	Not Completed n = 114	Completed n = 302		
	n (%)	n (%)		
<i>Period</i>				0,538
1902-1950	0	7 (2,3%)	7	
1951-1970	5 (4,4%)	9 (3,0%)	14	
Year of foundation	8 (7,0%)	20 (6,6%)	28	
1981-1990	18 (15,8%)	37 (12,3%)	55	
1991-2000	23 (20,2%)	76 (25,2%)	99	
2001-2010	31 (27,2%)	84 (27,8%)	115	
2011-2016	29 (25,4%)	69 (22,8%)	98	

Source: Research (1 Pearson chi-square test).

When the completion of a postgraduate course among university students was analyzed, no significant association was observed either ($p = 0.810$), an important observation is also made here, it is noted that in the last 15 years, those who have completed the postgraduate course are 31 who they represent 56.4% versus 24 that represent 43.6% with the postgraduate course completed in the last century (Table 5).



Table 5. Association between postgraduate completion of administrators with a university degree and the company's operating time.

Year of foundation	He completed postgraduate		Total	Value of p^1
	No	Yes		
	n = 222 n (%)	n = 55 n (%)	n = 277	
<i>Period</i>				0,810
1902-1950	5 (2,3%)	1 (1,8%)	6	
1951-1970	7 (3,2%)	1 (1,8%)	8	
1971-1980	15 (6,8%)	3 (5,5%)	18	
1981-1990	32 (14,4%)	5 (9,1%)	37	
1991-2000	57 (25,7%)	14 (25,5%)	71	24 43,6%
2001-2010	60 (27,0%)	14 (25,5%)	74	
2011-2016	46 20,7%	17 (30,9%)	63	31 56,4%

Source: Research (¹Fisher's exact test).

The professional career of the administrators of the SMEs according to the condition of having completed the course or not is found in Table 6. The most frequent careers were administration courses (40.4%), followed by engineering (9.1%), Dentistry (6.2%), and Pedagogy (6.0%). The association between the chosen career and the completion of the course was statistically significant ($p < 0.001$).

Table 6 - Association between the professional career of administrators according to the condition of completion of the course

Professional Career	Course		Total	Value of p^1
	Not Completed	Completed		
	n = 114 n (%)	n = 302 n (%)	n = 416	
Career				<0,001
Management	70 (61,4%)	98 (32,5%)	168 (40,4%)	
Accounting	1 (0,9%)	19 (6,3%)	20 (4,8%)	
Law	1 (0,9%)	15 (5,0%)	16 (3,8%)	
Engineering	6 (5,3%)	32 (10,6%)	38 (9,1%)	
Psychology	1 (0,9%)	13 (4,3%)	14 (3,4%)	
Pedagogy	9 (7,9%)	16 (5,3%)	25 (6,0%)	
odontology	0	26 (8,6%)	26 (6,2%)	
information technology	2 (1,8%)	11 (3,6%)	13 (3,1%)	
Economy	0	9 (3,0%)	9 (2,2%)	
Technologist	16 (14,0%)	16 (5,3%)	32 (7,7%)	
Other university courses	8 (7,0%)	47 (15,6%)	55 (13,2%)	

Source: Research (¹Pearson chi-square test).

To evaluate the training requirements of administrators, they were asked about a set of items (questions Q24.1 to Q24.29) to find out the factors that could be related to competencies, skills, and attitudes. Cronbach's alpha was first calculated to verify the internal consistency of the 29 questions. Cronbach's alpha value was 0.941, indicating excellent consistency.

The questions were then analyzed by principal component analysis. The results are presented in Table 7. Five factors were formed that represent 55.83% of the accumulated variation of the data: Group 1- Incentive for teamwork, Group 2 - Objectives within the workgroup, Group 3- Attention to



the external activities of the company, Group 4- Development and delegation to the work teams and, Group 5- Interrelation with the work teams.

Regarding the managerial characteristics of administrators, the participants answered 21 questions grouped into "Technical characteristics", "Human characteristics", "Concept characteristics" and "General characteristics". The internal reliability of all questions was high (Cronbach's alpha = 0.937), indicating that the data have internal validity.

Table 7 - Factors related to the skills of managers of SMEs.

Question	Factor				
% Accumulated variation= 55,83%	1	2	3	4	5
Group 1- Incentive for teamwork					
Q24.15 Convey messages and ideas clearly and make sure your orders and directions are understood by the team	0,747	0,173	0,059	0,056	0,199
Q24.14 Generate human, material, and financial resources for your company	0,724	0,300	0,087	0,079	0,013
Q24.13 Update yourself on the latest methodologies and practices in your business sector	0,658	0,299	0,075	0,243	0,017
Q24.23 Encourage your team and give suggestions for improvement in the company's processes	0,652	0,193	0,303	0,206	0,107
Q24.25 Manages the time to give attention to the whole team in the conduct of processes and projects	0,618	0,147	0,321	0,230	0,165
Q24.19 Invest in the task and project planning	0,617	0,270	0,367	0,046	0,070
Q24.24 Value and reward important team contributions	0,616	0,186	0,328	0,271	0,082
Q24.16 Offer conditions so that the team obtains the expected results	0,612	0,140	0,043	0,058	0,490
Q24.17 Invest in team training	0,542	0,196	0,215	0,247	0,319
Q24.12 Make reports on the development of your team	0,500	0,327	0,381	0,282	0,104
Group 2 - Objectives within the working group					
Q24.5 Use your customers' perceptions of the quality of your products/services	0,125	0,626	-0,017	0,203	0,168
Q24.3 Set realistic and challenging team goals	0,164	0,588	0,275	0,142	0,080
Q24.4 Evaluate the performance of your team	0,271	0,582	0,281	0,105	0,202
Q24.9 Define which group of customers should be the focus of commercial actions	0,357	0,553	0,250	0,126	-0,048
Q24.1 Clearly define your business	0,301	0,553	0,160	-0,232	0,326
Q24.7 Stimulate innovation, updating, and absorption of new knowledge in your team	0,423	0,546	0,041	0,212	0,173
Q24.11 Actively participate in the goals of each area	0,410	0,537	0,151	0,104	0,010
Q24.2 Sharing knowledge and information with the team	0,113	0,531	0,227	0,173	0,271
Q24.6 Adapt to changes	0,286	0,516	0,059	0,288	0,307
Group 3- Attention to external activities of the company					
Q26.27 Seek professional advice and guidance	0,295	-0,014	0,631	0,169	0,165
Q24.20 Systematically monitor the performance of the competition	0,266	0,246	0,631	0,182	-0,013
Q24.8 Dominate the operational activities of your company	-0,058	0,428	0,605	-0,114	0,144
Q24.22 Maintain exchange with suppliers and collaborators	0,333	0,202	0,460	0,242	0,039
Group 4 - Development and delegation to work teams					
Q24.29 Accept your team's mistakes when looking for creativity	0,193	0,144	0,168	0,707	0,075
Q24.28 Encourage a critical attitude in your team	0,314	0,199	0,308	0,560	0,207
Q24.10 Decentralize the decision process	0,367	0,400	0,103	0,486	-0,027
Group 5- Interrelation with work teams					
Q24.21 Treat your team with respect	0,055	0,168	0,132	-0,030	0,749
Q24.26 Meet deadlines with your customers	0,079	0,198	-0,016	0,445	0,552
Q24.18 Encourage cooperation between your team	0,414	0,299	0,096	0,251	0,482

Source: research.



The results of the factors are presented in Table 8. 3 factors were formed using all the questions on managerial characteristics, which represent 56.68% of the accumulated variation of the data: Group 1- Understanding of the organization, Group 2- Development of business, Group 3- The business relationship.

Table 8. Factors related to the managerial skills of administrators of SMEs

Question	Factor		
	1	2	3
% variation = 56,68%			
Group 1- Understanding of the organization			
Q25.1.4 Ability to identify and solve problems	0,751	0,140	0,187
Q25.1.5 Orientation for costs and results	0,738	0,071	0,234
Q25.3.3 Ability to understand the concepts and transfer them to your business	0,608	0,436	0,219
Q25.3.1 Total vision of the business	0,595	0,502	0,101
Q25.1.2 Ability to innovate technologically	0,568	0,285	0,261
Q25.1.3 Attitude of continuous research of the competitors (benchmarking)	0,551	0,310	0,311
Q25.3.6 Vision of the Future	0,544	0,492	0,253
Group 2- Business Development			
Q25.4.4 Learning from Experience	0,167	0,724	0,132
Q25.4.2 Negotiate, mobilize for change, cultural sensitivity, teamwork	0,162	0,659	0,398
Q25.4.3 Responsible and human ethics towards the group that works	0,081	0,643	0,299
Q25.3.2 Ability to integrate your contribution with the business	0,394	0,581	0,233
Q25.4.1 Characteristics of the business: understand its objectives, customers, and competition, as well as the political and social environment	0,446	0,570	0,173
Q25.3.5 Critical distance for evaluation of actual data	0,354	0,548	0,370
Q25.3.4 Ability to interrelate to external reality	0,502	0,512	0,289
Group 3- The business relationship			
Q25.2.3 Quality of relating at all levels	0,117	0,195	0,787
Q25.2.6 Positive reinforcement practice	0,115	0,319	0,709
Q25.2.2 Ability to motivate and engage	0,382	0,152	0,682
Q25.2.4 Openness to adapt to changes	0,314	0,233	0,672
Q25.2.5 Practice of social competence	0,276	0,310	0,628
Q25.2.1 Ability to lead and participate in teams to achieve goals	0,520	0,175	0,574
Q25.1.1 Technical mastery of processes	0,195	0,285	0,287

Source: research.

To investigate whether there is an association between the good functioning of SMEs and the management and direction of the company, we used the time of foundation of the company. The results are presented in Tables 9 and 10. Most of the interviewees indicated that management and direction are important or very important regardless of the year the company was founded.



Table 9 - Capacity to add economic value to the organization according to the year of foundation of the SMEs

Year of foundation	management				Value of p ¹
	Not at all important	More or less important	Important	Very important	
	n = 1	n = 9	n = 117	n = 289	
	n (%)	n (%)	n (%)	n (%)	
<i>Period</i>					0,720
1902-1950	0	0	2 (1,7%)	5 (1,7%)	
1951-1970	0	0	5 (4,3%)	9 (3,1%)	
1971-1980	0	1 (11,1%)	8 (6,8%)	19 (6,6%)	
1981-1990	0	1 (11,1%)	13 (11,1%)	41 (14,2%)	
1991-2000	0	1 (11,1%)	30 (25,6%)	68 (23,5%)	
2001-2010	0	4 (44,4%)	31 (26,5%)	80 (27,7%)	
2011-2016	1 (100%)	2 (22,2%)	28 (23,9%)	67 (23,2%)	215 (74,4)

Source: Research (1 Kendall's tau – τ test for ordinal variables).

The perception of the Ability to add economic value to the organization on the importance of Management, the Very important, was very strong in the last 25 years with 74.4%.

Table 10. Capacity to establish norms and create resources to intensify the strategy and the competitive position of the organization according to the year of foundation of the SMEs.

Year of foundation	management				Value of p ¹
	Not at all important	More or less important	Important	Very important	
	n = 1	n = 13	n = 101	n = 301	
	n (%)	n (%)	n (%)	n (%)	
<i>Period</i>					0,537
1902-1950	0	0	1 (1,0%)	6 (2,0%)	
1951-1970	0	0	4 (4,0%)	10 (3,3%)	
1971-1980	0	2 (15,4%)	7 (6,9%)	19 (6,3%)	
1981-1990	0	2 (15,4%)	12 (11,9%)	41 (13,6%)	
1991-2000	0	3 (23,1%)	22 (21,8%)	74 (24,6%)	
2001-2010	0	4 (30,8%)	28 (27,7%)	83 (27,6%)	
2011-2016	1 (100%)	2 (15,4%)	27 (26,7%)	68 (22,6%)	74,8

Source: Research (1 Kendall's tau - τ test for ordinal variables).

The opinion of administrators on the importance of professional training and their participation in events (congresses, seminars, updates) was analyzed. The results are presented in Table 11.

The evidence from the sample allows us to say that there is a significant association between participation in events and the academic training of administrators ($p < 0.001$). Regarding academic training, the data suggest an association, despite not having a statistically significant result ($p = 0.054$).



Table 11 - Association between the professional training of administrators and the importance of professional training and participation in events.

Characteristic	University course		Total n = 416	Value of p ¹
	Not Completed n = 114	Completed n = 302		
	n (%)	n (%)		
Professional training				0,054 ¹
Nothing important	2 (1,8%)	1 (0,3%)	3	
a little bit important	4 (3,5%)	1 (0,3%)	5	
There's no difference	10 (8,8%)	26 (8,6%)	36	
Important	36 (31,6%)	95 (31,5%)	131	
Very important	62 (54,4%)	179 (59,3%)	241	90,8
Participation in events				<0,001 ²
Never	17 (14,9%)	9 (3,0%)	26	
Rarely	31 (27,2)	56 (18,5)	87	
Eventually	43 (37,7)	111 (36,8)	154	
Almost always	16 (14,0)	79 (26,2)	95	
Always	7 (6,1)	47 (15,6)	54	41,8

Source: Research (1 Fisher's exact test; 2 Pearson's chi-square test).

As an objective the training of professionals, the organization that works in the management and development of products and service organizations.

5 CONCLUSIONS

The professional in administration must be able to act in management and coordination functions at different administrative levels, developing new technologies to control the speed of innovation, and trying to meet the real needs in the field in which they operate. The good performance of an administrator also depends on his training, which allows him to function in various sectors of the economy. The topic is important for the development of a reflection on the cultural and academic training of entrepreneurs to better develop their activities given the constant challenges of the globalized world. The fundamental concern of large companies is and must be their survival

The survey with the administrators points out that changes and transformation in the requirements of the university education of the administrators of SMEs, overcoming the current structure and proposing a new one: curricular redesign, theoretical framework, training, skills, and practice.

With the growing globalization and changes in the labor market, companies feel the need to have a team of employee leaders capable of meeting the needs of the organization and be prepared for the challenges in learning and improvement, and when the survey asked about the factors that are related to skills, abilities, and attitudes, the result that is shown in five blocks was excellent with an average of 55.8%, showing that administrators have these requirements.

Competence is not only a sum of knowledge, not only knowing how to select, within a repertoire of resources such as knowledge, skills, qualities, experiences, and emotions, among others, the relevant factors to solve problems.



The survey tried to identify if SMEs can only function well if they have good management or direction. And the information collected in the survey has shown that most managers (74.4%) pointed out that the management and direction of companies are very important.

To identify yourself, you can establish a relationship between the training or education of SME administrators and their training or university preparation, they were asked about professional training and their participation in events (conferences, seminars, updates) the result of the survey was that 90, 8% point out professional training as important or very important and 41.8% almost always or always update it.

More than 78.0% of entrepreneurs consider starting a business to be a desirable career option; successful entrepreneurs gain status and respect in society and the media with stories often about successful start-ups.

These concepts show the prestige that entrepreneurship has achieved among the population. It was sought to know that the university education that administrators have received in the Administrators Career are factors of professional development and success in the operation, growth, and permanence of SMEs and the result of the statistical data shows in terms of the level of education. college administrators.

In the period of the years 2001-2016, that is, in this century the level of administrators with university education is 50.6%, where we can notice a slight positive percentage variation of 1.2 percentage points, which indicates that raising awareness of university education is important in business management, where a trend of this percentage can be predicted to be higher in the coming years due to high competitiveness and global globalization.

However, when analyzing the average, which is ($p = 0.538$), it shows that the university education of administrators is not a determining factor for the operation, growth, and permanence of SMEs in the State of São Paulo.

With all this, and although considering such observations and notes, it is undeniable that the University has become an important teaching space, in the development of skills for the world of work that provides learning based on solid and universal conceptual training. , the transmission of the universal beliefs and values of society and the development of the academic culture to train competent managers to generate the success of the institutions and the community, the university, which belongs to the management system of the company, to develop skills for the business world; develops learning based on business practice, the transmission of the beliefs and values of the company and its business environment and on the development.



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