



## Competencies for the academy and market perspective: an approach to the un-sustainable development goals



Sandeep Kumar Gupta<sup>1\*</sup>, Chhaya Dubey<sup>2</sup>, Laodiceia A. Weersma<sup>3</sup>, Ruchika Vats<sup>4</sup>, Deepa Rajesh<sup>5</sup>, Koretsky Oleksand<sup>6</sup> and Rajiv Ratan<sup>7</sup>

<sup>1</sup>AMET University, Chennai, India; <sup>2</sup>BMS College for Women, Bengaluru, India; <sup>3</sup>Centre Christ University, Brazil; <sup>4</sup>G. L. Bajaj Institute of Technology & Management, Greater Noida, India; <sup>5</sup>AMET University, Chennai, India; <sup>6</sup>National Academy of Management, Kyiv, Ukraine; <sup>7</sup>R B S Management Technical Campus, Agra, India

E-mail/Orcid Id:

SKG, skguptabhu@gmail.com, <https://orcid.org/0000-0002-26702858>; CD, dr.chhayadubey@gmail.com; LAW, laoweersma@gmail.com; RV, ruchik.vats@glbitm.ac.in; DR, executivedirector@ametuniv.ac.in; KO, koretskydialog@gmail.com; RR, drrajivratan@gmail.com

### Article History:

Received: 2<sup>nd</sup> Apr., 2023

Accepted: 17<sup>th</sup> Jun., 2023

Published: 30<sup>th</sup> Aug., 2023

### Keywords:

Academic, job market, management skills, soft skills

**Abstract:** This research paper's objective is to analyse the adequacy of the skills learned/acquired by a higher education degree in management and suitable skills for the market. Therefore, we have used descriptive research based on a survey of 258 students, graduates and post-graduates in business administration (Academy) and by the 14 companies awarded by the Great Place to Work (market). The main results indicate that the competencies suggested by the Ministry of Education for undergraduate courses in Business Administration no longer respond to current market needs. They also focus that the skills most demanded by companies are Soft Skills, transversal and behavioural competencies. The adequacy between the competencies of the academy and the market, revealed through Student's t-test, that there is insufficient learning/acquisition/ mastery by students, graduates and graduates in 31% of the competencies studied, necessarily the skills most demanded Soft Skills.

### Introduction

The transformations in post-modern society have decisively influenced the professionals' training requiring skills that meet the organisational needs of companies. The changes tend to be perceived in several socio-economic dimensions, in which the processes of innovation impel the emergence of activities and competencies, that tend to redesign the society, causing that capital and people to migrate to other areas or to reinvent technically and professionally.

In response to these transformations, Brazilian education has experimented, in recent years, with a significant increase in the offer of higher education colleges and educational institutions in the same way, from the last 15 years. It was possible to observe a significant increase in undergraduate courses in Administration in Brazil and the number of students enrolled. However, this did not mean an improvement in

the quality of the administrator's training (Oliveira and Sauerbronn, 2007). However, an increase in the number of courses did not occur without prejudice to the quality of the education offered (Castro, 1981).

In an environment where companies seek to differentiate themselves to gain competitive advantage, the work of the administrator and the demand for favoured professionals of specific skills in parallel has evolved, making them capable of promoting organisational development. However, in a scenario in which 29.4% of the individuals are considered functional illiterates (INEP, 2015), educational institutions in Administration suffer from a lack of understanding of reading and comprehension of texts. This lag in primary education has significant repercussions in higher education and consequently in the labour market.

Educational institutions, universities and colleges have played a fundamental role in the professional management and training of students, and it is



undoubtedly the main means of instrumentalizing access to information on the labour market, and professional trends, to guide career planning and to present, from the curriculum, the necessary paths to the consolidation of professional life.

Accordingly, observing the educational trends and the new demands of the market, the National Education Council (CNE) approved a document in 2005, According to article 4 that undergraduate courses in Business Administration should develop the professional formation that manifests the right skills and abilities, suggested by the Ministry of Education (CNE, 2016).

In this scenario, Fleury and Fleury (2011) addressed the term competence, which can be understood as the capacity that an individual possesses or develops for the resolution of adverse situations with efficiency and effectiveness. The authors argue that the absence of competencies reserves a sign of possible marginalisation in the labour market and social recognition. Corroborating this statement of the National Survey; profile, training, performance and work opportunities of the administrator, held in 2015 by the Federal Council of Administration (CFA) in partnership with the Regional Administration Councils (CRAs) it has been revealed that the current Administrators are aware of the competition in the labour market, most of them already have specialisation courses (eg., MBA) and projects to face new training programs (CFA, 2015). In the context of the market, the World Economic Forum (WEF) published a report in January 2016. "The Future of Jobs", states that 35% of the skills most demanded by most professionals should change by 2020 (WEF, 2016). The changes are justified in the context of the so-called Fourth Industrial Revolution: advanced robotics, automation in transportation, artificial intelligence and automatic learning. With the understanding of these aspects, starting from the questioning of which competencies, the students and graduates of undergraduate courses in business administration must acquire/learn according to the needs of the contemporary markets. Because of the sustainable development objectives, concerning Objective 4 (UN, 2015). This research aimed to analyse the adequacy between the skills acquired in undergraduate higher education in Administration and the competencies demanded by the market, using a detailed survey based on a survey, a five-point Likert scale structure. To estimate the central objective the data were analysed with the statistical program SPSS 19, revealing the results for Student's t-test, aiming to identify the statistical significance of the results. To develop a clear and linear presentation order, this research has been structured by

this introduction; competence in the academic perspective; competence in the market perspective; and competence in the perspective of a great place to work. Consequently, the methodological procedures, the presentation of the results of the research and the analysis of the data, and finally the considerations and suggestions for future studies.

### Concepting Competence

The term competencies have become a constant agenda both in academia and in business. Moreover, this theme is present at all levels of society; where there are people there are skills. However, the competencies have been a criterion of weight for the differentiation of a professional (private sector) and an organisation. The antonym, or the opposite of the word competence (incompetence), implies a biased and distorted form of its etymological interpretation. Indeed, it can be said that in a "pejorative" way. The absence of competencies reserves a sign of possible marginalisation in the labour market and social recognition (Fleury and Fleury, 2011).

In general terms, the notion of competencies concerns three dimensions, which include competency as resources related to the concept of qualification (corresponding to the English concept of qualification or human capital accumulated) over the life of the individual as a result of training and accumulated experience. The competencies are knowledge, skills applied (activated) in a professional place (in the act of work, during the accomplishment of the tasks) and the result of social judgment (Suleman, 2007).

In this perspective, different theoretical currents demonstrate this understanding, namely, the American School of behavioural approach, represented by Boyatzis (1982), McClelland (1987), Spencer and Spencer (1993), Mirabile, Mclagan and Green (1999) and the French School with a constructivist approach of the authors' Le Boterf (1994) and Durand (1998) Man and Lau (2000) and Zarifian (2003), Deist and Winterton (2005) as dominant in the discussion of the subject, besides Brazilian authors talk about the theme, such as Resende (2000), Ruas (2001), Dutra (2004), Rabaglio (2004), Fleury and Fleury (2011).

The American authors have been discussing competence for more than 35 years. They consider the term, for the most part, as a set of personal characteristics observed and reflected in high-performance actions. The concept for French authors tries to go beyond the attributed approach as the qualification of the individual. They orient themselves in the perspective of the

applicability of the concept, as well as the contribution of differences in some points. All converge towards the social factor of the individual. Thus, as the American, same understanding, according to Table 1.

**Table 1. Competency Concepts in the View of American, French and Brazilian Authors.**

Author	Year	Skills Concepts
Boyatzis	1982	... It is a set of personal characteristics that define superior performance.
Mcclelland	1987	... These are measured skills that are presented in a practical result.
Spencer and Spencer	1993	... is a profound characteristic of an individual, which predicts who did something good or bad when measured in a specific criterion or standard.
Le Boterf	1994	... Three axes: the person (biography and socialization), educational background and professional experience.
Mclagan	1997	... characteristics and attributes of people who perform tasks and others related to the task itself, which are observed through behaviours reflected in actions.
Mirabile	1997	... is a set of knowledge, skills, aptitudes or characteristics associated with high performance at work.
Durand	1998	... It is knowledge, skills and attitudes that represent resources or interdependent dimensions of competence.
Green	1999	... A competence description quantifiable work habits and personal abilities utilised to attain a work goal.
Man e Lau	2000	... Conceived as characteristics that include different personality traits, knowledge and skills, influenced by education, experience, training, family demographic aspects and history peculiar to the person.
Resende	2000	... It is the transformation of knowledge, skills, abilities, and interests into practical results.
Ruas	2001	... The question of competencies arises in space for interaction between people; and the demand of the organization in its work and market processes.
Zarifian	2003	... It is taking initiative and taking responsibility in the face of complex professional situations (ally), using practical intelligence.
Dutra	2004	... Characteristics of the individual, with the concept of delivery (adding value).
Rabaglio	2004	... skills, knowledge, attitudes and behaviours that allow the individual to perform tasks effectively, in any situation.
Fleury e Fleury	2011	... It is understanding how to conduct responsible and recognized way that increases the organization's economic worth and the individual's social value.

*Source:* Nassif et al. (2012)

French schools and the Brazilian authors' views, it is complementary to the concept when they refer to the term. It has characterised by abilities exercised in an organisational context and has linked to the integrative actions and possibility of better performance for the construction of the concept of competencies despite the

Further corroborating the construction of a wider concept of competencies, individual competence is composed of a tripod: Knowledge, which refers to Style, Skills, in the concept of knowing how to do and Attitudes in the sense of wanting to do (DOZ, 1996; LOMBARDI et al., 2009). According to Queiroz (2018), knowledge and skills are technical skills, whereas attitude is behavioural competence. However, making it more

challenging to be managed Dede (2010) says that the focus on this tripod is not instrumental having these attributes is not a guarantee that the professional will add value to the organisation.

Soft Skills assist learners to grow self-confidence and self-assurance which are required to complete the course. They also contribute to achieving positive results in interviewing for and securing a position in the organisation as well as becoming recognised

**Table 2. Interrelationship skills**

Skills	Concepts
Cognitive	Theoretical knowledge and basic concepts.
Functional	Skills demanded a given activity.
Behavioural	Personal characteristics, which effectively lead to superior performance in a given role.
Values and Ethics	Personal and professional principles and the ability to execute them in work situations, which require such skills as a model for action.
Metacompetences and Transcompetences	Such competencies have the power to influence the development of other decisions, regarding aspects such as learning and self-development, mental agility, communication, creativity, problem-solving, analysis and reflection.

*Source:* Fernandes et al. (2021)

Corroborating with this perspective, Barak (2018) approaches the concept of transversal skills or Soft Skills. The authors present the concept as behavioural attitudes innate or acquired by each professional are related to emotional intelligence skills with the mental abilities of each person, interpersonal relationships, differentiating a professional and putting it in greater competitiveness in the labour market.

The concept of cross-disciplinary abilities was introduced by Robert Mertens under the heading of "key competencies" (which is vital credentials) and referred to skills that are not related to the training or technical role played by a person, are not related to the technical learning of a specific area of study or knowledge (Keane et al., 2016). Personality characteristics, objectives, preferences, and action reasons are examples of transversal skills. They are both generic and specialised competencies; they are transversal, transferrable, and adaptable, but there is no single and widely accepted definition of such competencies. They are the career attributes that people have to possess; (Lingerie et al., 2000; Mirch, 2004; Mitchell, Skinner And White, 2010; Heckman and Kautz, 2012). Employability skills, critical skills, general skills, transferable skills, essential qualifications, transversal skills, non-academic skills, and people skills are transversal skills, sometimes called general, critical, universal, human, non-academic or necessary to achieve and maintain work/employment (Swiatkiewicz, 2014).

organisational leaders (Jamison, 2010). According to some writers, this form of talent is more difficult to observe, evaluate, and quantify than technical skills (Levy and Murnane, 2003). Professional skills are essential for the best performance of the job. However, afterwards, transversal competencies are needed to maintain it (Brandtzæg et al., 2010). Therefore, having technical skills is a necessary condition. However, which is insufficient to remain on the market or at the job, as "technical and transversal competencies complement each other (Bawden, 2008). The best performers have both appropriate technical knowledge as well as behavioural skills".

Therefore, it has been verified that the conceptual basis of competencies is comprehensive and marks the term. In summary form, as a set of skills, aptitudes, and personal characteristics of the individual that makes it perform better in the organisational context, representing the cognitive, and productivity at work.

### Competence in The Academic Perspective

For the delineation of the definition of competence from the academic perspective, it is essential to know some guidelines about the development of competencies in higher education in Administration. Therefore, we have the institutionalisation of the term "Competence" in the field of education, based on the understanding of the various propositions of the Law of Guidelines and bases of Brazilian National Education.

On December 20, 1961, the first sanction of the Law of Directives and Bases of National Education - LDB (Law no. 4,024 / 61) was enacted. Thirty-five years later, the new Laws of Guidelines and Bases of National Education were enacted, with Law No. 9,394, of December 20, 1996. The new LDB guidelines represented an advance for Brazilian education, aiming at regulating national education and its various modalities, and although implemented more than a decade ago, the first guidelines found little use of the possibilities that have been provided in it.

time. On the contrary, they inhibited innovation and diversification in the preparation or training of the art student for the market (CNE, 2005).

It has been found in the National Curricular Guidelines (DCNs) of the Undergraduate Courses, among others, the specifications regarding the desired profile of the trainee and the skills and abilities, per course. These Guidelines has divided into guidelines common to specific courses and guidelines. Among the first ones, some refer to the pedagogical project the curricular organisation to the stages and complementary activities,

**Table 3. Skills to be Developed During the Administration Course**

The Administration Course should promote the development of transversal skills	Curricular Guidelines for Administration Courses National Council of Education (Resolution no. 1 of 02/02/2004),
<p><b>Management Skills</b></p> <p>Contextualize (reading of environment/situation); Systemic view; Systematize decision making; Readiness for Change; Business view; Negotiation.</p> <p>Social Competencies</p> <p>Interpersonal relationships; Communication; Manage People; Working in the group; Develop teams.</p>	<p>Recognise and define issues, examine solutions, think strategically, implement changes in the production process, act preventively, transmit and generalise information, and exercise decision-making abilities of varying complexity.</p> <p>Develop the ability to provide leadership and administration consulting, as well as administrative, managerial, organisational, strategic, and operational advice and knowledge.</p>
<p><b>Technical Skills</b></p> <p>Know Processes and Activities developed in organizations; Know know-how and when to apply tools; Integrate specific and general knowledge in your area of expertise; Review concepts and establish critical and analytical reasoning about them.</p>	<p>Critically reflect and act on the production sphere, knowing its position and role in the production system under its control and administration;</p> <p>Develop logical, critical, and analytical reasoning to operate with mathematical values and formulations present in the formal and causal relationships between productive, managerial, and control events, as well as creatively and critically expressing themselves in various organisational and social contexts.</p> <p>Improve your organization's ability to design, implement, and combine initiatives.</p>
<p><b>Learning Competencies</b></p> <p>Reflection Capacity; Critical view - emancipatory; Establish reflective knowledge; Self-development; Use knowledge in action.</p>	<p>Having creative thinking, drive, political and managerial will, readiness to learn, willingness to change, and awareness of the intellectual and ethical implications of their professional practice;</p> <p>- developing the ability to transfer knowledge from everyday life and experience to the work environment and its professional field, in different organisational models, demonstrating adaptability.</p>

**Source:** Adapted from Aesaert and Braak, (2015)

The new guidelines of the LDB replace the minimum curricula of the courses, which established a consistent level between different institutions, implying in detail the disciplines and schedules. Its normative nature, inhibited educational institutions from innovating their pedagogical curricula not allowing the achievement of the desired quality according to their contextualization in space and

the monitoring/evaluation and the monograph/work of conclusion of course. In the Specific Guidelines by Course, there is the definition of the desired profile of the trainee, the skills, and abilities that should be made possible in the training of the student and the curricular contents.

The DCNs tell the following about the intended profile of the undergraduate course in Administration: The ability to grasp the scientific, technological, social, and economic elements of production and its administration is referred to as capacity. Observing progressive levels of decision-making, as well as developing qualitative, adequate management, revealing the assimilation of new information, displaying intellectual flexibility and contextualised adaptability in dealing with diverse situations, present or emerging, in the various segments of the manager's field of activity (CNE, 2005).

Under this law, it is the responsibility of the Union to lower general rules on undergraduate and postgraduate courses, while determining curriculum for courses and programs is the responsibility of educational institutions, following the guidelines, which makes it possible to define the professional profile, they wish to form.

Observing the educational trends and the variants demanded by the market. The National Education Council approved a new document, on July 13, 2005, showing in its article 4 that the undergraduate courses in Administration should develop the professional formation that manifests, the following skills and abilities:

I - To recognise and define issues; equate remedies, think tactically, implement changes in the productive process, act preventively, transmit and generalise knowledge exercise, in various degrees of complexities, and the procedure for making decisions.

II - To cultivate expression and communication skills that are consistent with professional practice, such as in negotiation processes and interpersonal or intergroup discussions.

III – To analyse and act analytically on the production sphere, knowing its place, role in the productive system, and control and management.

IV - To cultivate logical, critical, and analytical thinking to operate with mathematical values, and formulations found in formal, causal relationships between productive, administrative, and control events, as well as to express themselves critically and creatively in various organisational and social contexts.

V – To demonstrate initiative, innovation, willpower, political and managerial will, openness to change, and understanding of the quality and ethical consequences of their professional practice.

VI - To develop the ability to transfer information from ordinary life and experience to the workplace, its sphere of professional activity, in various organisational structures, and to demonstrate adaptability as a professional.

VII –To develop the ability, to plan, execute, and consolidate projects in organisations.

VIII - To gain the ability to provide management and bureaucratic consulting, as well as administrative, managerial, organisational, strategic, and operational views and reports (CNE, 2005).

From the professional education of skills and abilities to be developed in the student has institutionalised in the higher education of Administration. Antonello and Dutra (2005) have said that, In the discussion of reformulation and implementation of a pedagogical project of the administration course of a Private University with broad participation of students, teachers, researchers, community members, public sector representatives. After analysis, the authors developed in compliance with the competencies suggested by the MEC; a framework of competencies that students should develop during administration classifying them into four categories.

It is understood that the notion of competencies is associated with expressions and verbs: "To know, how to act, to mobilize resources, to integrate multiple and complex knowledge, to learn, to know how to engage, to assume responsibility and to have a strategic vision" (Silva et al. 2004, Fleury and Fleury, 2011, Cornelis et al. (2016) raises some points common to individual competence, such as a set of characteristics or requirements - knowledge, skills, a condition capable of producing effects, results and or solutions of problems. Personal competence arises from individual learning, where the individual acquires information, skills, attitudes and values, always involving social interaction, through contact with reality, the environment and other people. For this to occur, determinant conditions such as organic, maturity are needed, as well as an internal disposition for continuous learning.

Although the concept of competence is broadly disseminated and accepted by the tripod: Knowledge, Skills and Attitudes. Claro et al. (2012) say that the concept is obsolete and no longer responds to the needs demanded by the current corporate world. He talks about the requirements of a complete professional and speaks about eleven competencies of a current model of professional requirements, which he calls "Neo-competence": education, motivation, humility, achievement, authenticity, sociability, solidarity, skills, and attitude seeking a greater understanding of the individual's conception of competences (Fernandes et al., 2021). Present a model integrated by different approaches, whose aim of the research was to identify how the individual develops and maintains his professionalism in the work environment, which

**Table 4. Competencies Required by Large Organizations**

Company	Interviewed	Competence
Nívea Brasil	Cristian Goetz (President)	Care for people. Some behaviours identify a leader with this competence, such as the search for solutions that balance different interests, focusing on strengths.
Grupo Pão de Açúcar	Peter Estermann (Vice President)	The synergy. Professionals with this competence must be able to see new possibilities for savings or increased efficiency, not restricted to the sector in which they operate, but about the company as a whole.
Google Brasil	Cláudia Worms Sciama (Business Director for Retail)	Inclusive leadership. The company believes that every employee has to contribute, so it is necessary to listen to the opinion of subordinates and relinquish control from time to time. Bosses cannot be a barrier to the flow of ideas.
Netshoes	Gabriela Tanaka (Operations Executive)	Adrenaline in business. "What we mean by adrenaline is to always be connected, with the desire to solve in the best way and in the shortest possible time the problems that our customers may have".
Jhonson & Jhonson	André Fontes (Director of business in the bio-surgery segment)	Identification of opportunities. When recruiting the company evaluates the role that the employee played in major change processes and the demystification of paradigms in other organizations.
Avon	Eduardo Ribeiro (Vice President of Sales)	Create purposes. "In direct selling, creating a purpose is essential. We want someone who knows how to use the communication channels and who is willing to inspire the team, whether in the same office or the sales network".
GE	Rogério Mendonça (Executive Director of Transport)	Interpret complex scenarios. Professionals capable of making decisions in environments that can change quickly or adapt to different cultures, calculating risks and opportunities.
Facebook América Latina	Alexandre Hohagen (Vice President)	Be bold. Facebook is a company that seeks disruption and innovation. The idea is that if you never break anything, you're not moving fast enough. It doesn't matter that a decision was as disastrous as possible if it was made within the need to act quickly. "But it is our way of doing things."

**Source:** Elaborated by the author based on Bălău and Utz (2017)

originated the concept of competencies in five interrelated groups or dimensions, according to Table 2.

Aesaert and Braak (2015) argue that such competencies should not be understood as exclusive competencies located in specific disciplines or acting only in certain areas of the organisations, but acting as transversal and complementary competencies. The flexibility and autonomy that institutions find to create

differentiated training proposals and define the professional profile

they want to form a matrix of competencies that are the essential characteristics of the curricular guidelines. However, the development of competencies would lead to a change of behaviour in the management of educational institutions, attributing to students and teachers as the protagonist of this change.

According to Rogers and Lopez (2002) the reformulation of pedagogical projects for the creation of a new matrix should contemplate both the curricular organisation and the pedagogical practices, seeking to overcome or even minimise the disciplinary fragmentation of the teaching itself.

Corroborating with this perspective (Elmuti, 2004), there is always a difference between what is taught in the classroom and what is learned by the students. And that, even more, talented than this, there is always a difference between what is taught in education formal (academia) and what the world of work desires. In this

their courses and consequent to the market of work. Agreeing with the author's view above, Burgardt (2005) argues that developing skills is not an easy task. HEIs must create and develop new teaching methodologies where students, individually voluntarily can go after knowledge to develop their skills and abilities more efficiently.

Although the acquisition of such skills, considering the perspective of the student. Some studies have pointed to obstacles to the achievement and use of these competencies, as in the study by (Albayrak and Caber, 2014). They raise the need for reformulation in practices

**Table 5. Most demanded skills**

Ranking	Competence category	Variation in search frequency 2014-2015
1	Statistical analysis and data mining	0%
2	Mobile development	9%
3	Software quality assurance (QA) and usability testing	9%
4	Logistics	1%
5	Web architecture and development frameworks	-2%
6	Middleware and integration software	-2%
7	Engineering and data storage	3%
8	Information security	-2%
9	Human resources (benefits and compensation)	15%
10	Corporate law and governance	Did not appear on the 2014 list
11	Workplace safety	Did not appear on the 2014 list
12	Interface design	4%
13	Microsoft application development	8%
14	Business Intelligence	-6%
15	Review control system	-8%
16	Recruitment	-14%
17	Public Policies and international relations	Did not appear on the 2014 list
18	Materials Engineering	Did not appear on the 2014 list
19	Perl / Python / Ruby	-4%
20	Java Development	-3%
21	Business development and relationship management	Did not appear on the 2014 list
22	Social media marketing	-13%
23	Digital Marketing	-9%
24	Software modelling and process design	-4%
25	Shell scripting languages	-7%

**Source:** Pak Katie et al. (2020)

context, Higher Education Institutions (IESs) need to understand the education process in the administration, to decide the strategies used in the classroom, so that the students develop the skills desired for the graduates of

of pedagogical aspects of teaching institutions, inserting throughout the undergraduate course concrete experiences that approach what each professional will encounter, in the environments of their performance after graduation.



**Table 6. Most Demanded Skills by 2020**

	Skills	Description
1	Complex Troubleshooting	According to the research, 36% of all operations in all industries would demand skill in tackling complex challenges during the next four years.
2	Critical Thinking	To assess the strengths and limitations of various solutions, conclusions, and approaches to issues, use logic and rationalisation. This was the fourth most important ability in the Forum's 2015 projections, placing second in the list for 2020.
3	Creativity	Creative professions will profit from situations of quick alterations in goods, technology, and working methods. The ability that was ranked tenth in 2015, market demand estimates is now one of the three most remarkable abilities for 2020.
4	People management	According to the World Economic Forum research, the capacity to encourage, develop, and recognise talent is the most important aspect of a manager's work. This talent is expected to be important in the energy and media industries by 2020.
5	Coordination	The capacity to coordinate one's activities in response to the actions of others was the second most important talent for the labour market in 2015, and it now ranks fifth in labour market demand estimates through 2020.
6	Emotional intelligence	Emotional intelligence is becoming important in the corporate imagination. Competence did not feature in the market's talent projections in 2015, but it currently ranks sixth on the list for 2020. One factor to consider is that artificial intelligence is still a long way from being used in management. emotional.
7	Capacity for judgment and decision-making	According to the survey, people experienced in analysing data and settings and making judgements from that now stand out in the market and will be much more in demand by 2020. The competency was ranked eighth in the list of competence projections highlighted for 2015, however, it has now risen to seventh.
8	Guidance to serve	In comparison to market demands for 2015 and 2020, the proclivity to help others has dropped in the rankings. However, it is still seen as a necessary talent for collaboration.
9	Negotiation	According to the World Economic Forum research, the sectors of computing, arithmetic arts, and design will demand the greatest negotiators by 2020.
10	Cognitive Flexibility	The research paper describes how to construct or apply distinct sets of rules to combine or arrange objects in various ways. Competence was not on the list of projected labour market demands in 2015. Consumer goods, communication, and information technology specialists will be in high demand in the industries.

**Source:** Prepared by the author, based on the World Economic Forum (2016)

Also, like the study of Nassif et al. (2012), in which, they emphasise that the method of education (teaching, research and extension) is foreseen in LDB. It must act inseparably within educational institutions. And still, because it is aware that the curricular matrix does not fully contemplate the demands demanded by the labour market. The authors suggest a university management model that intensifies projects in the research and extension area, among which we can mention; company

training, extension courses, extracurricular activities, as well as fostering partnerships with local and regional companies.

In this sense, the relevance of research evidencing the connection between the acquired/learned competencies in the higher education of Administration and the competencies demanded in the market view is confirmed.

**Competence in Organizational / Market Perspective**

The concept of competence began to be elaborate in the organisational environment from the perspective of the individual. Under this approach, the results of journalistic research describe what skills and abilities are being demanded of professionals by large national and multinational companies. The research titled: "What companies expect from you now" (Vieira and Ferreira, 2017), reveals some skills and attitudes demanded by big companies such as Avon, Facebook, GE (General Electric), Nívea, Pão de Açúcar, Johnson & Johnson, Google and Netshoes. For a better understanding, the competencies demanded by these eight large companies are presented in Table 4. According to the testimony of their presidents, vice presidents, executives and directors.

Netshoes Gabriela Tanaka (Operations Executive) Adrenaline in business. "What we understand by adrenaline is to be always connected, with the desire to solve in the best way and in the shortest possible time the problems that our customers may have."

Johnson, Johnson and André Fontes (Business Director of the biogas segment) Identification of opportunities is essential. When recruiting the company evaluates the role that the employee played in essential processes of change and the demystification of paradigms in other organisations.

In this context, in January 2016, LinkedIn, a worldwide social network of companies and professionals, announced the ranking of skills most sought after by recruiters on the site in the year 2015. The social network analysed the searches made in Brazil and other countries. The keywords most typed by employers between January 1 and December 1, 2015, were grouped into 25 skill categories, according to Table 5.

It added at the market level that the World Economic Forum (WEF) published a report in January 2016 (The Future of Jobs), stating that 35% of the skills most demanded by most professionals should change by 2020. The changes are justified in the context of the so-called Fourth Industrial Revolution: advanced robotics, automation in transportation, artificial intelligence and automatic learning (WEF, 2016). According to the report, health, energy, consumer, media and entertainment professionals are already changing the industry. It also emphasises that areas such as finance, infrastructure and transport will undergo more profound transformations in the future. The following is a list of skills and their descriptions.

It is essential to emphasise the concept of individual competencies, that Knowledge and Abilities are technical competencies, while Attitude refers to behavioural competencies. From this perspective, it can be argued that

there is an increase in the demand for behavioural competencies. It becomes less costly for an organisation to manage or develop technical skills rather than behavioural skills. Perhaps this perspective explains. In part, the reason for the emphasis on recruitment programs for competencies such as motivation, initiative, solidarity, good sense, and self-denial, among others.

According to Teixeira (2010) many of the main repressed demands of companies on their leaders, such as motivating managers and developing employees are all about people management. This previously neglected competence lies at the heart of a revolution which, according to theorists like Hamel, will mark the end of the era of authoritarian leadership and the beginning of a competitive cycle centred on human capital.

Based on a survey conducted by Fleury a consulting firm in personnel management, with a sample of 365 interviews with executives from eight Latin American countries. Teixeira (2010) affirms the need for organizations to find more and more complete professionals, which means that it is not enough to be just a specialist in a particular area. One must have a generalist view regarding human skills, the field of biological and physical sciences, seeking the balance between management and culture, through philosophy, schools business and complementary activities. It also says that the skills of innovation and decision-making are evident because together with the technical skills form the professional closest to the new century. The interest of the organisation is a professional who adds values, does not work individually and knows the importance of the work team. That is, professionals, focused on human capital.

The rapid technological advance has raised the requirements of hiring, requiring a level of preparation that only the investment in higher education can provide. Among the various reasons for this reality are the technological evolution, school education of the employees and greater exigency of the consumers (Gerald Steiner, 2012).

The ability of the professional to become employable. That is adapting to the new needs of such a dynamic labour market goes beyond the technical skills acquired during school education. Organisations also seek to find behavioural competencies in practitioners. To develop these competencies, a serious effort is needed on the part of families, governments, the education system and society as a whole (Torres et al. 2018).

Few proposed model of a comparative analysis between the needs of the market and the training of managers. It has shown that in the perception of the

managers, the professionals of administration should be closer to the theoretical-practical premise, bringing them closer to the possible scenarios of the market, and developing the real skills required by the market.

Corroborating with the concepts and perceptions seen so far, especially the need for more effective alignment between the academy and the market. To provide a closer experience to undergraduates, it is essential to highlight organisational competencies. For this, GPTW has presented next to the "Best Companies to Work For" award and what competencies the winning organisations of this award demand.

proper performance. They are seeking alignment between individual and organisational competencies. Competency management is a useful tool that transforms knowledge into action, where the result is visible to the entire organisation and the market (Pak Katie, 2020).

The foundation of core competencies for the organisation lies in the existing knowledge in the company not only in some individuals but in groups of individuals implicitly. And that leads the company to have a competitive advantage. Thus, from the identification of the essential competencies, the organisation starts to work on the individual competencies, in the process of successive unfolding,

**Table 7. Key Skills - Great Place to Work Methodology**

Dimension	Description
Credibility	It is achieved when managers communicate with employees frequently, explaining the company's plans to them and asking for their opinion. It also includes the competence to coordinate material and human resources, so that employees know how their work is linked to the organization's objectives. Finally, credibility is closely linked to the integrity of managers; for them to be credible, they must comply with what they say.
Respect	It is based on instigating the professional development of employees, with resources, equipment and training; appreciating good work and extra effort; collaborating with employees on important decisions, concerned with personal well-being; and encouraging collaboration between departments, creating a safe and healthy environment.
Justice	In fair organizations, economic success is shared equally, through a combination of compensation and benefits programs. The hiring and promotion decisions are impartial, without favouritism or discrimination. There are clear processes for appealing decisions and resolving disputes. To be fair, you need to be impartial and fair.
Proud	This is what employees feel about their work, the individual contributions of their colleagues and team, the company's products and the place it occupies in the community.
Camaraderie	It is a dimension related to the bonds between employees, which is manifested in a socially friendly and receptive atmosphere and the feeling of family and team.

*Source:* Pak Katie (2020)

### Competence for The Great Place to Work Perspective

There is a recognition in several sectors and areas, especially in the field of Administration, that the core competencies of the organization - denominated core competencies by Pak Katie (2020) - act in a complementary way to the competencies of the individual. Then, according to Dutra (2002) points out that there is an ongoing process of skill-sharing.

Organisational competencies have been defined through strategic indicators such as company mission, vision and values, as well as other essential tools for their

always having as its strategic objectives the company (Fleury and Oliveira, 2001).

In the context of organisational competencies, GPTW publishes the ranking of the "Best Companies to Work" award annually. The publication of the ranking enables organisations to transform their work environment, acting positively on all companies, as it encourages organisations to improve and compete to enter the ranking. Others, in turn, comparing them, realise the failures and seek solutions to their problems (Great Place To Work, 2017).

Great Place to Work is a global research, consulting and training company that offers solutions to drive business results through people; founded in 1991 by Robert Levering in the United States based in San Francisco. The main objective of the publication "Best Companies to Work For" is not to award awards, but to spread good examples and encourage other companies to improve their work environment. It is a way of drawing society's attention to the importance of a pleasant working environment (Great Place To Work, 2017). Two forms reveal how companies have chosen for the ranking: companies, for self-interest, seek the GPTW and submit to the evaluation. This usually occurs in countries where the ranking list has been published in a few years. At the same time, companies have systematically invited, especially those who usually have good recommendations from customers and employees. The GPTW assessment methodology is based on the application of an employee survey, called the Trust Index, based on the research that gave rise to the book "The 100 Best Companies to Work for in America". GPTW experts survey to identify the distinctive phrases that characterise the employees of excellent places to work (Pak Katie, 2020).

The Trust Index translates key organisational competencies for business valuation. The tool is applied to employees of all levels and areas and refers to the three essential relationships established in the corporate environment: the leader-subordinate relationship, the employee's pride in what he or she does, and the camaraderie among the work partners. These relationships guide the five critical dimensions of the Great Place to Work methodology used in more than 46 countries (Pak Katie, 2020). Table 7 presents the critical dimensions of this methodology.

In the organisational context, it is essential to emphasise that there is a distinction between the terms competencies and qualification. Both of these concepts are commonly confused. The notion of qualification guided the relations of work and teaching in the face of product characteristics. However, changes in production processes, resulting from a globalised market are transforming the view of the concept of qualification and opening space for the notion of skills. Besides, there is again as well as an understanding of the concept of competencies. It is observed that the term has been only a more modern nomenclature to manage an organisational scenario still permeated by the principles of Fordism-Taylorism. The concept of competence remains linked to the concept of qualification, usually correlated with the position or degree of hierarchy within the company. Thus, defining which skills or abilities an individual

should have seems to be insufficient to meet the needs of an organisation within a complex and changeable globalised context.

### Sustainable Development and Education Objectives

Discussions on Sustainable Development (SD) on the planet are becoming more common in many contexts and fields of expertise. Several authors conceptualise sustainability seeking to find a systematic way to operationalise, it in organisations. One of the leading models, that sought to reduce sustainability to a minimum standard of operation, is the so-called Triple Bottom Line - TBL known as the Tripod of Sustainability, by Wiek et al. (2011). The author defines sustainability as the "principle of ensuring that our actions today will not limit the range of economic, social and environmental options available to future generations", operating the concept in these three dimensions respectively.

The three dimensions of sustainability commonly referred to as the sustainability tripod must be integrated. So that resources have been effectively utilised in the environmental sphere. Besides, it has emphasised that the challenge for organisations is to maintain the balance and direct them in their strategies.

In Brazil, in an academic context, Wiek (2011) points out that Education for Sustainability emerged in the year 1970 when the focus on the educational role began to stand out, and the universities struggled to define and at the same time assume their role concerning teaching for a viable future. Wiek (2011) points out that Education for Sustainability in Brazil began to be highlighted in 1988 as an essential public policy instrument, established by the Federal Republic of Brazil, the National Environment Policy (PNMA) and the National Policy of Environmental Education - PNEA. Under Law 6,938 of the PNMA. All forms of formal and informal education must include Sustainability Education, and its programs permanently, including programs for training and development of people carried out by public and private organisations. At the international level, there is the Declaration of Talloires in France in 1950, which brought together more than 400 universities from various regions of the world, and the 2001 Luneburg Declaration. Which brought together 1,000 institutions in the Global Higher Education For Sustainability (GHESP). Conference on Higher Education for DS. More recently in 2009, Alternative University Appraisal (AUA), the Community of Asian Universities, aims to strengthen Sustainability Education strategies as a global pact (Wiek, 2011). Education for Sustainability in Higher Education in Brazil has been institutionalised since the creation of the Brazilian Federal Constitution - CFB 1988. The text

related to article 214, which aims to articulate the national education system collaboratively and define guidelines, objectives, goals, and implementation strategies to ensure the maintenance and development of education at its various levels, stages and modalities through integrated actions of the public powers of the different federative spheres that lead to:

- I- Eradication of illiteracy.
- II- Universalization of school attendance.
- III- Improvement of the quality of teaching.
- IV-Work training.

V- Humanistic, scientific and technological promotion of the Country. and VI - the establishment of a target for the application of public resources in education as a proportion of gross domestic product.

Later, the CNE takes up this issue in Article 15 of Federal Law 9,795 (April 27, 1999), It establishes the National Environmental Education Policy and provides for environmental education. Other measures are included in Chapter I, articles 01 and 03, emphasising environmental education as a vital and permanent component of national education. And must be communicated at all levels and modalities of the educational process, both formal and non-formal. Articles 205 and 225 of the Federal Constitution grant the public power. It is the responsibility to define public policies that include the environmental dimension, to promote environmental education at all levels of education, to encourage society's commitment to conservation, and to promote environmental education actions that are integrated with environmental conservation, recovery, and improvement programmes (CNE, 1999; da Silva 2023). Due to the numerous social and environmental problems that have been occurring in recent decades to guarantee survival conditions for future generations. DS movements are growing, defined as "development capable of meeting the needs of the current generation, without commitment to the ability to meet the needs of future generations "(WCED, 1987). From this perspective, the United Nations Organization in New York launched a new sustainable development agenda in 2015 including 17 sustainable development goals, known as ODS. More than 150 countries agreed on the objectives to be implemented and pursued over the next 15 years. Among them, objective 4 contemplates the theme of Quality Education. Before that, other United Nations conferences and summits had already reaffirmed their commitment to sustainable development. The Rio Declaration on Environment and Development is one of them. The World Summit on Sustainable Development; the World Summit on Social Development; and the

International Conference on Population and Development's Programme of Action. The Beijing Platform for Action and the United Nations Conference on Sustainable Development are both important initiatives (Rio + 20).

### Methodological Procedures

According to Rampazzo (2015, 53), "descriptive research observes, registers, analyses, and correlates facts or phenomena without manipulating them, studies facts and phenomena of the physical world, and especially of the human world, without the interference of researcher". In this sense, the environment where the research is carried out and applied is the labour market, represented by the companies that won the "Best Companies to Work" award in Ceará, medium and large category 2015 and 2016. And the academy dimension is represented by the students, graduates and graduates of the undergraduate course in Administration of colleges, university centres and universities. Primary data-based survey- research has been used. It is worth noting that the survey application has indicated. According to this type of methodological approach, the researcher evaluates a sample of a problem to be investigated to conclude (Miguel, 2012; Prasad, 2023).

The present research has developed in two phases:

i) exploratory research through bibliographical research aiming to carry out an in-depth and comprehensive analysis of the subject of the research and providing greater robustness to the study.

ii) field survey based on a survey, using two questionnaires, composed of 32 competencies, applied to 258 students, graduates and graduates of the undergraduate program in Administration, comprising 65% of graduates (167), 22% of graduates (56) and 14% of students (35). And applied to 14 companies awarded by GPTW. It is noteworthy that the same competencies were presented for both samples, seeking to identify in the questionnaire with the academy the learning/domain/ acquisition for each competency and aiming to identify in the questionnaire with the companies the degree of relevance/demand for each competency.

According to Castillo-Vergara et al. (2016) this type of sample is defined as non-probabilistic by accessibility. According to the ease of access to the research actors. For that, a five-point Likert scale has used for both questionnaires. The five-point scale is more comfortable to apply, and has the same accuracy as the seven-point scale, although the seven- and eight-point scales present greater precision and yield in the results, the five-point scale has chosen to intend to provide more convenience for respondents (Keane et al., 2016; Divyaranjini, 2023).

Also, aiming to reach the objective of this study, using Student's t-test, based on two independent samples, i)

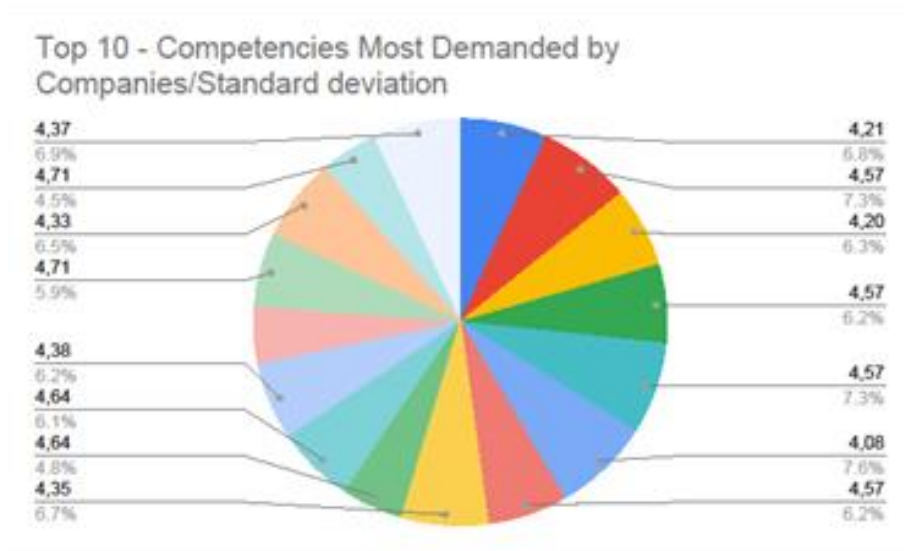


Figure 1. Pie Chart of Top 10 - Competencies Most Demanded by Companies

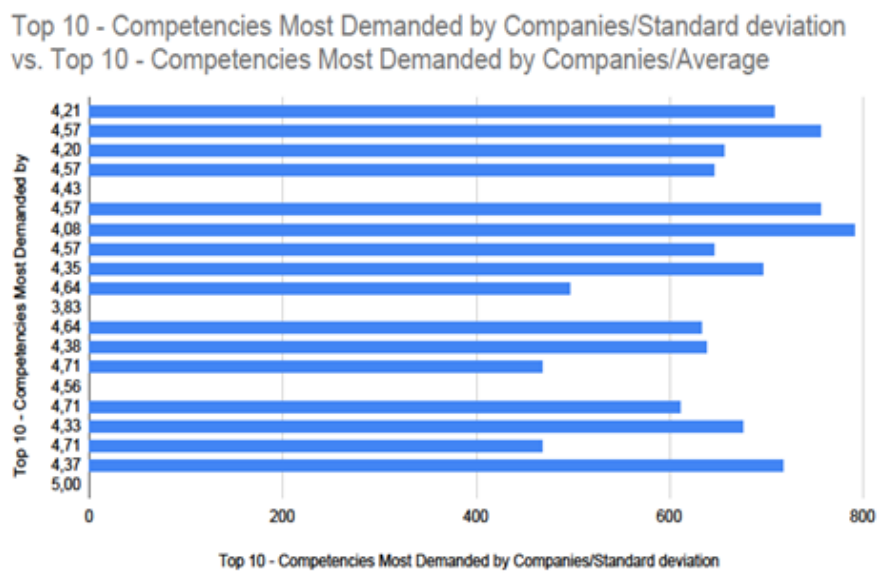


Figure 2. Bar Chart of Top 10 - Competencies Most Demanded by Companies

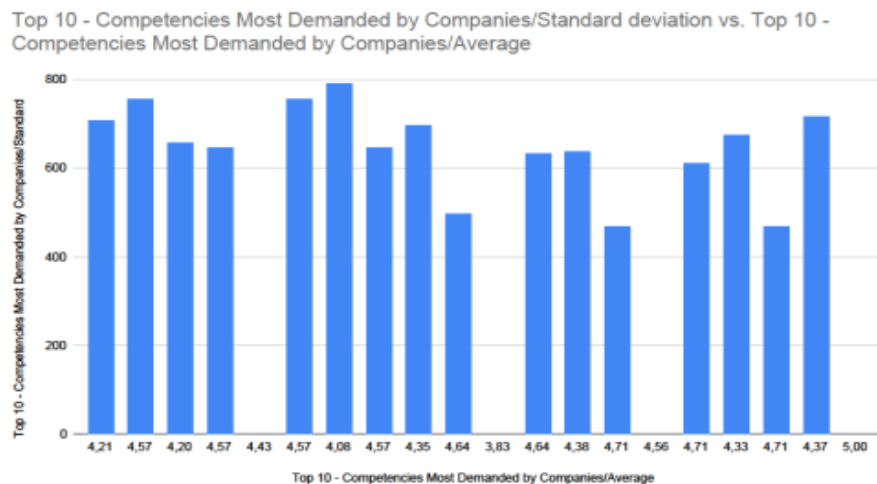


Figure 3. Top 10 - Competencies Most Demanded by Companies

academia; ii) market, we sought to verify the adequacy between the skills learned/acquired by students, graduates of the undergraduate degree in Business Administration and the competencies demanded by the market. It has a test that is used to evaluate the differences between the means of two sample groups (Catts and Lau, 2008, Rana et al., 2021).

To perform the test, a null hypothesis and an alternative hypothesis have been raised. Both being antagonistic, one considered as valid and the other as false, respectively. The null hypothesis for Student's t-test and the average competence of the students/graduates is equal to the average of the competencies of the companies. The alternative hypothesis for Student's t-test is and the average competence of the students/graduates is different from the average competencies of the companies.

In this way, the statistical role of the procedure is to identify. If the results are statistically significant, according to the predetermined limits and always because of previously chosen "significance levels" (Fleury, 2009, Kumar, 2022). Thus, for this study, a significance level of 0.05 was established that is, 5%. In practical terms, a critical value of "p" of less than or equal to 0.05 is assumed, a safety margin of 5% is assumed, or a different angle, a 95% chance of reliability of the data is correct.

Besides, it should be added that to perform such a procedure, we used the statistical program SPSS 19 version. According to Martinez and Ferreira (2007), "SPSS - Statistical Package For The Social Sciences - is statistical analysis and data processing software for science social". With the use of this software Student's t-test was applied.

### Analysis of Results

The results of this study come from a survey, composed of 32 questions/competencies, considering the following criteria: The competencies suggested by the MEC to undergraduate courses in Administration. The most demanding skills by 2020, according to the World Economic Forum and critical competencies of the methodology used by GPTW.

### Adequacy Between Competences Learned / Acquired In Higher Education In Administration And Market Demanded Competences - Student "t" test

In this part of the study, we sought to verify the possible adequacy between the skills learned/acquired by the students and graduates of the undergraduate course in Administration and the competencies demanded by the market. For this, the Student's t-test was used, based on two independent samples. i) students/graduates; ii) companies. It should be noted that Student's t-test had applied to the 32 competencies, but in this case, only by the criterion of serialisation and presentation of results,

Table 4 compiles the ten competencies most demanded by the organisations, the "Top 10". Seeking a better understanding. Table some information necessary for its interpretation has outlined:

a) Levene test: Significance > 0.05 The hypothesis of equal variances has not been rejected.

b) Levene test: Significance < 0.05 does not reject the hypothesis of different variances.

c) p-value of the "t" test (Two-Signal Significance) > 0.05. The null hypothesis of equality of the means of the two groups was rejected, So, it could be concluded that the means of the variable are statistically the same for the two in this case, with 95% confidence that the undergraduate/graduate students in Business Administration are learning/acquiring the skills that the organizations are demanding.

d) p-value of the t-test (Two-tailed Significance) < 0.05. If we reject the null hypothesis of equality of means of the two groups. So it can be concluded that the means of the variable are statistically different for the two samples, meaning that in this case, 95% confidence can affirm that the students/graduates of the undergraduate program in Administration are not learning/acquiring, at least enough, the skills that the organisations are demanding.

Fig 3 compiles the "Top 10" competencies most demanded by companies. The criterion of serialisation was due to the higher averages of competencies. Corroborating with the assertion of Nassif et al. (2012). It is valid that the academy considers the competencies of the market. It has been observed that there are similar means for five different competencies and means for the other five competencies. For a positive result of similar means, it can affirm with 95% confidence that the students/graduates of the undergraduate program in Business Administration are learning/acquiring the skills most demanded by the companies. For a negative result of the same means, it can affirm with 95% confidence that the students/graduates of the undergraduate course in Administration are not learning/acquiring, at least enough, the competencies most demanded by the companies.

Given the results, it can affirm that there is a gap, or insufficiency in the learning/mastery of the Soft Skills by the students/graduates. The result is so significant that the competence most demanded by the companies, unanimously, since the standard deviation is 0.000, is the competence of "People Management". The demand of companies for this competence corroborates with the report of the World Economic Forum, where it meets the most demanded skills by 2020, and highlights "People

Management" as a critical competency. The result also confirms the list of competencies most demanded by recruiters on the LinkedIn platform, where competency had 15% more demand compared to the previous year of the survey.

Also, the general results show that from the group of 32 competencies/variables studied, 10 do not have equal means, that is, there is insufficient learning/acquisition/mastery by students, graduates and graduates for 31% of the competencies studied; in another result, it has estimated that for each group of three competencies, the students/graduates do not have enough learning or mastery. Therefore, it is possible to affirm that in an organisational scenario of constant transformation, the transversal and behavioural competencies, Soft Skills, gain prominence in the business scope, being imperative to the students/graduates of the course of graduation in Administration and professionals the use of these competencies.

### Final Considerations

From the study carried out in the dimensions of the academy (students/graduates) and the market (GPTW companies) it has been noticed that there is a gap, and insufficiency in the learning/mastery of the learned/acquired competencies in undergraduate higher education in Administration free to the competencies demanded by the market.

From this perspective, the field research has shown that the current competencies suggested by the National Education Council no longer address the current market needs and although the MEC still lists core competencies for organisations. The document on competencies is of the year (Resolution No. 4 of July 13, 2005). The reformulation of the pedagogical projects for the creation of new curricular matrices for the undergraduate course in Administration should contemplate both the curricular organisation and the pedagogical practices, seeking, from this to minimise the disciplinary fragmentation of the teaching itself.

Besides, in compliance with the curricular guidelines for the undergraduate course in Administration, educational institutions are free to determine the professional profile. They want to form from their competency matrix. However, there is always a difference between what has been taught in formal education (academia) and what the market wants. In this context, it should be emphasised that Higher Education Institutions need to understand the education process in the Administration to create and develop new strategies and teaching methodologies that students individually

and mainly voluntarily can go after to develop their skills more efficiently.

Regarding the competencies required by the companies, the study showed that the demand for transversal /behavioural competencies predominates. Soft Skills brings together core competencies that help professionals reach their full professional potential. Therefore, having technical skills is a necessary but insufficient condition to ensure a position in the organisation; professionals who aim for the best performance must have both adequate technical skills, as well as transversal /behavioural competencies.

The adequacy between the skills learned/acquired by the students/graduates in the undergraduate program in Administration and the competencies demanded by the companies shows through Student's t-test. There is insufficient learning/acquisition/ mastery of students, graduates and graduates in 31% of the competencies studied and most of them being transversal /behavioural skills. Therefore, the adequacy between the skills learned/acquired by students and graduates and the skills demanded by the market reveals a significant gap, primarily in the case of Soft Skills, the competencies most required by organisations.

Although this research has contributed to the theoretical and empirical scope, some limitations must be recorded. The first concerns the sample of companies; a larger sample would prove more considerable for this study. The second is the characterisation of students/graduates and companies; seeking the comfort and effectiveness of the answers at the option of this author were not considered these questions. The third and last one refers to the use of a Likert scale with more points, allowing students/graduates and companies other answers, and consequently greater accuracy and performance of the results.

Besides, it is suggested for future research the identification of the limiting factors that make the students and graduates unfeasible in the best use, learning and acquisition of competencies.

### Conflict of interest

None

### References

- Aesaert, K., & Van Braak, J. (2015). Gender and socioeconomic related differences in performance-based ICT competencies. *Computers & Education*, 84, 8–25. <https://doi.org/10.1016/j.compedu.2014.12.017>



- Albayrak, T., & Caber, M. (2014). Symmetric and asymmetric influences of service attributes: The case of fitness clubs. *Managing Leisure, 19*(5), 307-320.  
<https://doi.org/10.1080/13606719.2014.885711>
- Bawden, D. (2008). Origins and concepts of digital literacy. In Lankshear C., Knobel M. (Eds.), *Digital literacies: Concepts, policies and practices*, New York, NY: Peter Lang Publishing. pp. 15–32.
- Bălău, N., & Utz, S. (2017). Information sharing as strategic behaviour: The role of information display, social motivation and time pressure. *Behaviour & Information Technology, 36*(6), 589–605.  
<https://doi.org/10.1080/0144929X.2016.1267263>
- Barak, M. (2018). Are digital natives open to change? Examining flexible thinking and resistance to change. *Computers & Education, 121*, 115–123. <https://doi.org/10.1016/j.compedu.2018.01.016>
- Brandtzæg, P. B., Lüders, M., & Skjetne J. H. (2010). Too many Facebook “friends”? Content sharing and sociability versus the need for privacy in social network sites. *International Journal of Human-Computer Interaction, 26*(11–12), 1006–1030.  
<https://doi.org/10.1080/10447318.2010.516719>
- Burghardt, G. M. (2005). *The genesis of animal play: Testing the limits*. MIT Press.
- Catts, R., & Lau, J. (2008). *Towards information literacy indicators*. Paris, France: UNESCO Publishing.
- Castro, C.M. (1981). The teaching of the Administration and its dilemmas: notes for debate. *Journal of Business Administration, 21*(3), 58-61.  
<https://doi.org/10.1590/S0034-75901981000300006>
- Castillo-Vergara, M., & Álvarez-Marín, A. (2016). Entrepreneurship perception in higher education. A comparative study among Students, Faculty Members and Directors. *Revista Latinoamericana De Ciencias Sociales, Niñez Y Juventud, 14*(1).  
<https://doi.org/10.11600/1692715x.14114261114>.
- Claro, M., David, D. P., Ernesto, S. M., Ignacio, J., Hinostroza, J.E., Susana, V., Flavio, C., & Miguel, N. (2012). Assessment of 21st century ICT skills in Chile: Test design and results from high school level students. *Computers & Education, 59*(3), 1042-1053.  
<https://doi.org/10.1016/j.compedu.2012.04.004>
- Cornelis T.M. van Houwelingen, Anna H. Moerman, Roelof G.A. Ettema, Helianthe S.M. Kort, & Olle ten Cate (2016). Competencies required for nursing telehealth activities: A Delphi-study, *Nurse Education Today, 39*, 50-62.  
<https://doi.org/10.1016/j.nedt.2015.12.025>
- Cudney, E., Elrod, C. C., & Uppalanchi, A. (2012). Analyzing customer requirements for the American society of engineering management using quality function deployment. *EMJ - Engineering Management Journal, 24*(1), 47-57.  
<https://doi.org/10.1080/10429247.2012.11431928>
- da Silva, T.H.C., Tatiana, M.H.J.M.G.M, Khan, M., Gupta, S. K. & Kaushik, R. (2023). Entrepreneurial Women in the Culture of Ceará: The Case of Cearens Literature. In: Yadav, S., Jain, P.K., Kankar, P.K., Shrivastava, Y. (eds) *Advances in Mechanical and Energy Technology. Lecture Notes in Mechanical Engineering*. Springer, Singapore.  
[https://doi.org/10.1007/978-981-19-1618-2\\_7](https://doi.org/10.1007/978-981-19-1618-2_7).
- Deist, F. D. L., & Winterton, J. (2005). What is competence? *Human Resource Development International, 8*(1), 27-46.  
<https://doi.org/10.1080/1367886042000338227>
- Dede, C. (2010). Comparing frameworks for 21st-century skills. In Bellanca J., Brandt R. (Eds.), *21st-century skills*, Bloomington, IN: Solution Tree Press, pp. 51–76.
- Divyaranjani, R., Desai, N., Kaur, G., Uppal, A., Gupta, A. K., Elango J., & Ahsan, S. (2023). An Analysis of Compensation Instruments on Employees’ Job Satisfaction. In: Alareeni, B., Hamdan, A., Khamis, R., Khoury, R.E. (eds) *Digitalisation: Opportunities and Challenges for Business. ICBT 2022. Lecture Notes in Networks and Systems*, vol 621. Springer, Cham. [https://doi.org/10.1007/978-3-031-26956-1\\_31](https://doi.org/10.1007/978-3-031-26956-1_31)
- Doz, Y. L. (1996). The Evolution of Cooperation in Strategic Alliances: Initial Conditions or Learning Processes? *Strategic Management Journal, 17*, 55–83.  
<http://www.jstor.org/stable/2486904>
- Elmuti, D. (2004). Can management be taught? If so, what should management education curricula include and how should the process be

- approached?", *Management Decision*, 42(3/4), 439-453.  
<https://doi.org/10.1108/00251740410523240>
- Federal Administration Council. National Research CFA / CRAs(2016). System: Profile, training, performance and job opportunities: administrator and technologist. 6. ed. Brasília, DF: Federal Council of Administration: Angrad.
- Fernandes, B. H. R., Bitencourt C. C., & Comini, G. M. (2021). Competence management models in leading brazilian organizations, *Rev. Adm. UFSM* 14(3), Jul- Sep.  
<https://doi.org/10.5902/1983465935598>.
- Fleury, M. T. L. (2009). Organizational culture and the renewal of competencies. *Braz. Adm. Rev.*, 6(1)  
<https://doi.org/10.1590/S1807-76922009000100002>
- Fleury, A., Fleury, M.T.L. (2011). Business strategies and skills training: a kaleidoscope puzzle of Brazilian industry. 3. ed. - 6° reimp. - São Paulo: Atlas.
- Gerald, S. (2012). Competences for Complex Real-World Problems: Toward an Integrative Framework, Weatherhead Centre for International Affairs, Harvard University, No 13-002.  
[https://wcfia.harvard.edu/files/wcfia/files/full\\_st\\_einer\\_13-0002.pdf](https://wcfia.harvard.edu/files/wcfia/files/full_st_einer_13-0002.pdf)
- Kaplan-Mor, N., Glezer, C., & Zviran, M. (2011). A comparative analysis of end-user training methods. *Journal of Systems and Information Technology*, 13(1), 25-42.  
<https://doi.org/10.1108/13287261111118331>.
- Keane, T., Keane, W. F., Blicblau A. S. (2016). Beyond traditional literacy: Learning and transformative practices using ICT. *Education and Information Technologies*, 21(4), 769–781.  
<https://doi.org/10.1007/s10639-014-9353-5>
- Kumar, A., Kapoor, S., & Gupta, S. K. (2022). Do the qualities of transformational leadership influence employees' job engagement? A survey of the Indian power sector". *Problem and Perspective in Management*, 20(4), 600-611.  
[http://dx.doi.org/10.21511/ppm.20\(4\).2022.46](http://dx.doi.org/10.21511/ppm.20(4).2022.46).
- Lombardi, D.A., Santosh, K.V., Melanye, J. B., & Melissa, J. P. (2009). Factors influencing worker use of personal protective eyewear. *Accident Analysis & Prevention*, 41(4), 755-762. <https://doi.org/10.1016/j.aap.2009.03.017>.
- Levy, D.H., & Murnane, R. J. (2003). The skill content of recent technological change: An empirical exploration. *The Quarterly Journal of Economics*, 118(4), 1279–1333.  
<https://doi.org/10.1162/003355303322552801>
- Martilla, J. A., & James, J. C. (1977). Importance-Performance Analysis. *Journal of Marketing*, 41(1), 77-79. <https://doi.org/10.2307/1250495>
- Nassif, V., Andreassi, T., & Fleury, M. (2012). Women entrepreneurs: Discussion about their competencies. *African Journal of Business Management*, 6(26), 7694-7704,
- National Institute of Educational Studies And Research (2018). INEP. National Education Board. 2015. Available at: <<http://portal.inep.gov.br/documents/186968/485745/Plano+Nacional+de+Educa%C3%A7%C3%A3o+PNE+2014-2024++Line+de+Base/c2dd0faa-7227-40ee-a520-12c6fc77700f?version=1.1>>. Accessed on: Jan.
- National Council of Education (2017). CNE. Resolution n. 4 of July 13, 2005. It establishes the National Curricular Guidelines of the Undergraduate Program in Administration, baccalaureate, and makes other provisions. Available at: <<http://portal.mec.gov.br>>. Accessed on: Mar.
- Oliveira, A. L., Lourenço, C.D.S., & Castro, C.C. (2015). Management education in the USA and Brazil: a historical analysis. *Pretext*, 16(1), pp.11-22.
- Oliveira, F.B., & Sauerbronn, F.F. (2007). Trajectory, challenges and trends in higher education administration and public administration in Brazil: a brief contribution. *RAP: Public Administration Magazine, Special Edition Commemorative*, pp. 149-170.
- Oliveira, K. L.; Santos, A. A. A. (2005). Reading comprehension and learning evaluation in university students. *Psychology: Reflection and Criticism*, 18(1), 118-124.
- Pak, K., Polikoff, M.S., Desimone, L.M., García, E. S. (2020). The Adaptive Challenges of Curriculum Implementation: Insights for Educational Leaders Driving Standards-Based Reform, *AREA Open. AERA Open*, 6(2), 1–15, <https://doi.org/10.1177/2332858420932828>
- Prasad, L.N.N., Rajsekar, D., Uppal, A.G., Mishra, P., Gupta, S.K.R., & Kornieva, N. (2023). Evaluation of the Exercise of the Performance Assessment System. In: Alareeni, B., Hamdan, A., Khamis, R., Khoury, R.E. (eds)

- Digitalisation: Opportunities and Challenges for Business. ICBT 2022. Lecture Notes in Networks and Systems, vol 621. Springer, Cham. [https://doi.org/10.1007/978-3-031-26956-1\\_52](https://doi.org/10.1007/978-3-031-26956-1_52).
- Queiroz, M., Paul, P.T., Sharma, R., & Coltman, T. (2018). The role of IT application orchestration capability in improving agility and performance. *Journal of Strategic Information Systems*, 27(1), 4-21.
- Rana R. Kapoor S., Gupta S. K., (2021). Impact of HR Practices on Corporate Image Building in Indian IT Sector. *Problem and Perspective in Management*, 19(2), 528-535. [http://dx.doi.org/10.21511/ppm.19\(2\).2021.42](http://dx.doi.org/10.21511/ppm.19(2).2021.42)
- Rogers, M. R., & Lopez, E. C. (2002). Identifying critical cross-cultural school psychology competencies. *Journal of School Psychology*, 40(2), 115–141. [https://doi.org/10.1016/S0022-4405\(02\)00093-6](https://doi.org/10.1016/S0022-4405(02)00093-6)
- Silva, C.S.C.D., Coelho, P.B.M., & Teixeira, M.A.P. (2013). Relationships between internship experiences and career development indicators in university students. *Revista Brasileira de Orientação Profissional*, 14(1), 35-46.
- Silva, M. J. M ., & Santos, A. A. A. (2004). The evaluation of comprehension in reading and the academic performance of university students. *Psychology in Study*, 9(3), 459-467.
- Sousa J. M., & Alves E. D. (2015). Competências do enfermeiro para o cuidado paliativo na atenção domiciliary. *Acta Paul. Enferm.*, 28(3). <https://doi.org/10.1590/1982-0194201500044>
- Suleman, F. (2007). The value of skills: a study applied to the banking sector. Lisbon: Horizon.
- World Economic Forum (2016). Global Challenge Insight Report. The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution. Available at: <[http://www3.weforum.org/docs/WEF\\_Future\\_of\\_Jobs.pdf](http://www3.weforum.org/docs/WEF_Future_of_Jobs.pdf)>. Access in
- Torres, A. S., Brett, J., Cox, J., & Greller, S. (2018). Competency Education Implementation: Examining the Influence of Contextual Forces in Three New Hampshire Secondary Schools. *AREA Open*, 4(2), 1–13. <https://doi.org/10.1177/2332858418782883>
- Vieira, E. R. M., & Ferreira, J. J. (2017). Strategic framework of fitness clubs based on quality dimensions: the blue ocean strategy approach. *Total Quality Management and Business Excellence*, 3363, 1-20. <https://doi.org/10.1080/14783363.2017.1290523>
- Wiek, A., Withycombe, L., & Redman, C.L. (2011). Key competencies in sustainability: a reference framework for academic program development. *Sustain Sci.*, 6, 203–218. <https://doi.org/10.1007/s11625-011-0132-6>

### How to cite this Article:

Sandeep Kumar Gupta, Chhaya Dubey, Laodiceia A. Weersma, Ruchika Vats, Deepa Rajesh Koretskyi Oleksand and Rajiv Ratan (2023). Competencies for the academy and market perspective: an approach to the un-sustainable development goals. *International Journal of Experimental Research and Review*, 32, 70-88.

DOI : <https://doi.org/10.52756/ijerr.2023.v32.005>



This work is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License.