

UMA PROPOSTA PARA A GESTÃO DE COMPETÊNCIAS HUMANAS PARA A SUSTENTABILIDADE

A PROPOSAL FOR THE MANAGEMENT OF HUMAN COMPETENCES FOR SUSTAINABILITY

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RESUMO

A partir da discussão da necessidade de se fomentar e desenvolver a sustentabilidade nas organizações, esse estudo tem por objetivo propor a gestão das competências humanas para a sustentabilidade. O estudo tem duas fases. Na primeira, após um levantamento das teorias e conceitos relativos às competências e sua relação com a sustentabilidade nas organizações, foram definidas seis competências humanas específicas. Em uma segunda fase, a fim de constatar a aderência desse conjunto de competências nas organizações, foram realizados dois estudos em empresas reconhecidas pelas suas ações em sustentabilidade e com uma gestão por competências consolidada. As evidências reforçam que a abordagem baseada em competências representa uma perspectiva apropriada e impulsionadora da gestão estratégica da sustentabilidade nas organizações. Como proposta para a gestão de competências humanas para a sustentabilidade, foram definidos a partir de um modelo orientador: para o quê o modelo é adequado, como será desenvolvido, formatado e utilizado.

PALAVRAS-CHAVE

Sustentabilidade. Competências humanas. Gestão por competências.

ABSTRACT

Considering the discussion regarding the need to promote and develop sustainability in organisations, this study aims to propose the management of human competences for sustainability. The study comprises two phases. First, after reviewing the theories and concepts related to competences and their relationship with sustainability in organisations, we defined six specific human competences. In the second phase, to ascertain the adherence of this set of competences in the organisations, two studies were conducted in companies that are recognized for their actions focused on sustainability and competences management. The evidence reinforces that the competence-based approach represents an appropriate perspective that strategically drives sustainability management in organisations. As a proposal, the following aspects were defined based on a guiding model: what is the competence-based management model suitable for, how it will be developed, formatted and used.

KEYWORDS

Sustainability. Human competences. Competence-based management.

INTRODUCTION

Sustainability can be sought by organisations based on integrating views, which advocate the inclusion of economic, social and environmental systems and their interdependence in the organisational processes (VALENTE, 2012). Glavas and Mish (2015) argue that it is no longer a matter of *whether* organisations will incorporate sustainability, but rather *how* they will do so. Taking responsibility over sustainability should represent the new modus operandi of the organisation. For that, the competence-based approach is considered to represent an appropriate perspective that drives sustainability management in organisations.

Sustainability requires management models/frameworks that allow the organisation to understand and act in accordance with its premises, measure its performance and evaluate its progress, as well as have

the means to communicate policies and advances to its stakeholders (AZAPAG-IC, 2003). Similarly, when organized into management models, competences allow for the achievement of substantial benefits by promoting an alignment between human resource management policies and the company's strategy (VAKOLA, SODERQUIST; PRASTACOS, 2007).

At the core of organisational and human competences, the Resource Based View (RBV) is seen as supportive theory. RBV states that the strategy formulation process and competence development process find each other in a dynamic cycle where each feed on the other (PRAHALAD; HAMEL, 1990; BARNEY; WRIGTH; KETCHEN, 2001). The influence of RBV has also been wide in studies on sustainability or corporate social responsibility (BORLAND et al., 2014; FOWLER; HOPE, 2007; HART; DOWELL, 2011; RUSSO; FOLTS,

1997). Competences have received some prominence in the associations between resources, sustainability strategies and competitive advantages (HART; DOWELL, 2011). Hence, human resources and human competences should have a sovereign role in formulating a sustainability strategy (HUSTED; ALLEN, 2007)

In the academic literature, it is possible to find some initiatives that consider the approach of competences as a key element for sustainability management, some more preliminary, others more advanced, such as the studies of Wilkinson, Hill and Gollan (2001); Berényi (2012); Murthy (2012); Borland, Ambrosini, Lindgreen and Vanhamme (2014) and Munck (2013). But although these studies clarify the importance of the individual, human competences are not addressed in terms of management, which poses obstacles to make them feasible and operable in organisations. Specifically regarding the development of competences at the individual level, despite the existing discussions (ROORDA, 2010; WESSELINK et al., 2015; WIEK et al., 2011), there are gaps in the understanding, as well as several obstacles to be overcome and opportunities to be harnessed.

A thorough analysis of the literature makes it possible to conclude that to date there is no proposal based on a holistic perspective of sustainability management, integrating organisational and human competences (GALLELLI; MUNCK, HOURNEAUX JUNIOR; CORRÊA, 2016). Similarly, articulating the notion of competence to the socio-environmental challenges imposed on organisations also represents a universe of problems, paradoxes and ambiguities in the corporate world.

Given the above considerations, this

study seeks to propose and discuss the management of human competences for sustainability. Our study carries both theoretical and practical contributions. It clarifies issues not explicitly developed yet in the academic literature and may be instrumental for practitioners within the area of human resources management and corporate sustainability strategy. Although it is recognized that a proper competence-based management requires guiding management models, this paper is limited to providing proposals to structure it, so that it can then be developed and applied in an organisational environment.

After Introduction, this paper presents the theoretical background section, with A Brief Review on Organisational and Human Competences. The following sections will present the Methodological Procedures, the discussion concerning Theoretical Research Data followed by the presentation and discussion on Empirical Research Data, and finally, we present our Proposal for the Management of Competences for Sustainability. The section on Final Remarks will complete the paper.

A BRIEF REVIEW ON ORGANISATIONAL AND HUMAN COMPETENCES

Organisational competence is understood as the way an organisation operates, which involves the mobilization of resources (tangible and intangible) seeking to achieve specific strategic results. They represent answers to the following questions: What the organisation is known for? What is it good at doing? And how does it pattern activities to deliver value? (ULRICH; DULEBOHN, 2015). The competences should be the focus for strategic definition

and practice at all levels of the organisation (PRAHALAD; HAMEL, 1990).

Organisational competences are built from the combination of resources and multiple competences of individuals, so that the total result is greater than the simple sum of individual competences (BERÉNYI, 2012). Thus, organisational competence occurs in interaction with environmental conditions, in addition to the interaction with and between people, in which the role of the collective also stands out (SPANOS; PRASTACOS, 2004). They must be constantly updated and improved – hence constantly changing (WRIGHT, DUNFORD; SNELL, 2001).

Although the empirical evidence proving the objective interrelationship between organisational and human competences is limited, by causal link, it can be said that the human competences, associated with other elements, such as organisational culture and macro environment, for example, would enable the development organisational competences (DE VOS, DE HAUW; WILLEMSEB, 2015).

Human competence is understood as the condition/potential to act based on the mobilization of resources – set of skills, attitudes and values – aiming at delivering a given objective (CHEN; NAQUIN, 2006; HALAND; TJORA, 2006). It involves a continuous and interdependent process of skills and actions (MAGGI, 2003), engaged in different levels of mastery and status, directed towards certain goals set by delivery patterns (CHEN; NAQUIN, 2006). This process takes place through the interaction with other individuals and with the conditions of the environment (BARTH, GODEMANN; RIECKMANN, 2007).

Beyond the characteristics of the indi-

vidual, human competences depend on the context and organisational culture (HALAND; TJORA, 2006). For this reason, it is impossible to reproduce it or transpose it to another situation without making adaptations (MAGGI, 2003); in addition, it may be expressed differently by different people in similar situations (CAPALDO; IANDOLI; ZOLLO, 2006). Like organisational competences, human competences must also be constantly updated and improved, therefore, constantly changing (WILKINSON et al., 2001).

By seeking to understand and apply organisational and human competences, it is necessary to define the concept of ‘deliveries’ (WOODRUFFE, 1992). Deliveries correspond to the objectification of competences: they are ‘results’ that should arise from competences in action, since they are subjective elements – or a set of intended behaviours (BOYATZIZ, 2008) – in action (McLAGAN, 1996). They give conditions to portray to the managers even the shortcomings of non-delivery, which should be the focus of attention for further decisions and actions. Despite being a concept originally indicated for the scope of the individual, it can also be used for organisational competences (BERENYI, 2012).

The literature has discussed the need for companies to explore and develop their competences in line with the competitive strategies and market demands. Vakola et al. (2007) argue that if competences are developed in line with the strategy, they can be used as powerful communication tools to translate strategies into behavioral terms, which are more easily understood and therefore applicable. Therefore, developing human competences and measuring deliveries in line with the strategy are key

factors to achieve organisational development (BERENYI, 2012). Competence-based management models are essential for that, because without the aid of tools and procedures for the implementation of competences, they would have no impact (McLAGAN, 1996), and would make no sense in the organisation.

In view of the exposed, the opportunities generated by the management of competences to the challenges imposed to sustainability management in the organisations are quite perceptible, which are: the condition of providing objective means for aligning actions and decisions to the strategy and verifying their coherence through the analysis of deliveries; to establish references that enable the changes required to incorporate sustainability into the organisational context; and, finally, to guide the decision making based on a systemic model, integrating deliveries into environmental, social and economic issues, concomitantly.

METHODOLOGICAL PROCEDURES

This research is classified as qualitative, based on an objectivist approach, and of exploratory and descriptive nature (DENZIN; LINCOLN, 2005). The first phase consisted of the literature review, to explore and elaborate the conceptual proposal. Subsequently, an empirical research was developed, in which two instrumental case studies were conducted, due to the need for a more in-depth analysis on the adherence of the proposal in the organisational environment. The research was conducted in the first half of 2015.

The instrumental case studies have proved to be adequate because, as recommended by Stake (2005), they are pertinent

when there is an interest in generating insights or refining theoretical aspects about the research. Therefore, the cases/units of analysis themselves have secondary relevance. The organisations were chosen initially from the group of Brazilian companies that have been publicly disclosing their sustainability reports for at least five years (2010-2015), in accordance with the 'Sustainability Reporting Guidelines' prepared and published by the Global Reporting Initiative (GRI). The publications of "The 150 Best Companies to Work For" in 2014 (PROGEP-FIA, 2014) were also verified, so that the selected companies could also be recognized by the practices of human resource management, specifically in the management of competences.

Faced with a list of slightly over a dozen possible organisations compatible with these criteria, two of them accepted to participate in the research: Braskem S.A. and Itaú Unibanco. Initially, secondary internal and/or external documents available digitally were collected and, during the contacts with the organisations, other relevant documents were requested. We compiled sixteen documents, eight from each organisation, related to the organisations involved and to the topics under discussion: sustainability and competences.

Semi-structured interviews were also conducted, based on by a flexible script, with managers at strategic and tactical levels in both companies, ten from Braskem and nine from Itaú Unibanco, from different areas. The questions had the purpose of identifying the human competences required and developed for the performance of the manager and his/her subordinates, and their connections with sustainability, organisational competences and the de-

mands of their area in relation to the organisation's strategies. In addition to specific questions, the respondents were asked to give examples of situations in which they believed that human competences for sustainability were developed, both for themselves and for their subordinates.

All 19 interviews were recorded, with the permission of the participant, and subsequently transcribed. We analyzed the data using the Atlas.ti software version 8. We conducted a thematic analysis of the content, which involved the analysis of the text based on the definition of themes and categories, so that the information could be systematized (GUTHRIE et al., 2004).

Data processing followed the recommendations of Miles, Huberman and Saldanha (2014), consisting of: a) data reduction; b) data display and c) conclusion drawing. In the data reduction, through a hybrid and interactive perspective between inductive and deductive approaches (BOYATZIS, 1998), we created codes, super codes (code grouping) and families (grouping of super codes and codes). For the data display, the analysis tools of Atlas.ti offered the necessary support, with co-occurrence matrices. For drawing the conclusions, the interpretations followed the observation of patterns, possible explanations, flows and propositions, in addition to the triangulation of research methods (YIN, 2014).

THEORETICAL RESEARCH DATA: A CONCEPTUAL PROPOSAL FOR HUMAN COMPETENCES FOR SUSTAINABILITY

Wiek et al. (2011) argue that it is necessary to have specific human competences for sustainability, differentiated from others, more common in the organisation. The

relevance of these other competences applied to various management bodies is not ignored. However, since problems related to sustainability have peculiar characteristics, analyzing and solving them require a peculiar set of interdependent and interrelated competences as well.

In the search for references on the subject, Galleli et al. (2016), in a systematic review of the literature between 2000 and 2015, identified over 100 terminologies for specific human competences for sustainability. But, the contributions found by the authors were limited mainly to the definition of human competences. Thus, the proposition of a model that guided its development and evaluation in organisations has been lacking studies. Based on that, we looked for other studies that would contribute to the preparation of the proposition of this article. Among the references with the highest degree of adherence are the studies conducted by Haan (2006), Kleef and Roome (2007), Roorda (2010), Wiek et al. (2011) and Osagie et al. (2014).

We also based this study regarding the organisational competences indicated by Munck (2013), because they make up a sustainability management model articulated by competences. In the analysis of other models available in the academic literature (for example, WILKINSON et al. (2001) and MURTHY (2012)), Munck's research (2013) demonstrates greater development and synergy with the circumstances of this article.

The author presents six organisational competences, which structure sustainability, which are: the key competences: Economic Sustainability (EcoS), Environmental Sustainability (EnvS), Social Sustainability (SS), supported by the interaction and consequences of other three secondary com-

petences, combined in pairs, Eco-efficiency (EE), Socio-environmental Justice (SJ) and Socio-economic Insertion (SI). Developing the macro competence “organisational sustainability” at the strategic level implies developing and delivering the key competences EcoS, EnvS and SS at the tactical level, which in turn means developing and delivering the secondary competences EE, SJ and SI, at the operational level.

Munck’s (2013) argument is that the articulation between these different levels allows for a systemic connection of the organisational competences regarding social, economic and environmental concerns. That takes place holistically throughout the organisation, once it covers its strategic, tactical and operational levels of operation. Although the author’s study is limited to organisational competences, it should be considered that the individual competences are fundamental for their development. Therefore, human competences need to be further explored and studied.

Based on the theoretical review, in Figure 1, six human competences and their respective operational descriptions were outlined, three of which are exclusive in relation to the secondary organisational competences – Eco-efficient Management; Socio-environmental Management and Socio-economic Management – and other three combined and distributed into pairs also in relation to the secondary competences – Environmental Innovation; Social Innovation and Economic Innovation. These connections reinforce the systemic understanding of the interrelationships existing between the organisational and human competences, which should later be organized into a management model. The supporting references

for the proposition of each human competence are also indicated.

Figure 1 shows that all six competences refer to the **condition to act** in view of a given objective, that is, a given delivery. The three exclusive competences of the secondary competences – EEM; SEnvM and SEcoM – emphasize management references, while for competences combined to meet two secondary competences simultaneously, there is greater emphasis on innovation – Ecol; Envl and SI. The justification for this follows the argument of Kleef and Roome (2007) regarding the requirement of certain competences so that innovation and the change towards sustainability can be effective. Moreover, although the insertion of the idea of innovation associated with sustainability starts with specific actions including the use of the so-called “environmentally friendly” technologies, it is already possible to note a broader and more dynamic perspective (SMITH et al., 2010), in which sustainability in organisations is driven by innovation (PUJARI, 2006). Combined in pairs, human competences for innovation can be interrelated, guide and be guided by all secondary organisational competences, thus enabling a broader insertion.

By exploring each of the human competences proposed, **Eco-efficient Management** is related to the condition to act directly for the delivery of Eco-efficiency. A possible delivery of the individual in this sense would be the “Projection of the organisation’s image through products associated to sustainability (eco-efficient, renewable, etc.)” Organisational results of this competence in action could be verified through research studies and acknowledgments regarding the image and reputation

Secondary Organisational Competence	Human Competence	Operational Definition of Human Competences	Supporting References
Eco-efficiency	Eco-efficient Management (EEM)	Condition to act in view of demands for resources, facts, assumptions and opinions, in line with the principles of sustainability undertaken by the organisation and its strategies and objectives related to the supply of products and services at competitive prices that meet human needs and improve quality of life.	Roorda (2010); Wiek et al. (2011); Osagie et al. (2014)
Social-environmental justice	Social-environmental management (SEnvM)	Condition to act seeking the development and application of management tools that align and achieve organisational and individual goals, respecting the culture, power and policies interested in building a fair and equitable organisational environment.	Haan (2006); Roorda (2010); Wiek et al. (2011); Osagie et al. (2014)
Socio-economic Insertion	Socio-economic management (SECoM)	Condition to act aiming at stimulating and making the skills essential to the organisational subject to contribute to its qualification in a way that leads to autonomous and conscious decisions capable of meeting both the subject's social and economic needs, while contributing to the organisational goals.	Haan (2006); Roorda (2010); Wiek et al. (2011)
Eco-efficiency Socio-economic insertion	Economic innovation (EcoI)	Condition to act aiming to visualize, develop and implement new economic solutions in products/services/processes concerning the organisational goals of competitiveness and considering the autonomy and quality of life of the organisation's stakeholders.	Haan (2006); Kleef and Roome (2007); Roorda (2010); Wiek et al. (2011)
Eco-efficiency Social-environmental justice	Environmental innovation (EnvI)	Condition to act aiming to visualize, develop and implement new environmental solutions in products/services/processes concerning the organisational goals of competitiveness, in line with the objectives and principles of justice established in the organisation.	Haan (2006); Kleef and Roome (2007); Roorda (2010); Wiek et al. (2011)
Social-environmental justice Socio-economic insertion	Social innovation (SI)	Condition to act aiming to visualize, develop and implement new economic solutions in products/services/processes in line with the objectives and principles of justice established and considering the autonomy and quality of life of the organisation's stakeholders.	Haan (2006); Kleef and Roome (2007); Roorda (2010); Wiek et al. (2011)

FIGURE 1 – Specific human competences for sustainability management in organisations.

of the organisation in this scope. Based on that, records can be made and computed for the development and delivery of Eco-efficiency, according to the patterns established by the organisation itself.

Socio-environmental Management refers to the condition of the individual to act directly for the delivery of Socio-environmental Justice. An example of delivery in this case would be the “Development of studies on culture, power and policy in force in the organisation and the definition

of plans for the adequacy to the strategic objectives of sustainability.” The results could be observed through the definition and publication of guidelines and policies of conduct in the relationships with stakeholders, which will guide other procedures, such as training and compliance with certifications. This would enable evaluations with respect to the development and delivery of Socio-environmental justice.

Socio-economic Management is associated with the condition to act for the

delivery of Socio-economic Insertion. The organisational individual could be evaluated by the following delivery: “Monitoring of the indicators of socio-economic insertion of employees (e.g.: wages compatible with the region; access to culture and professional and educational development).” The results from this human competence could be verified through the internal and external recognition of the organisation in relation to these indicators, with organisational climate surveys, for example. Likewise, these indications can be used to verify the delivery of Socio-economic insertion.

Economic Innovation refers to the condition to act for the simultaneous and balanced delivery of Eco-efficiency and Socio-economic insertion competences. Deliveries from the organisational individual may refer to the “Insertion of the active participation of customers in the reverse logistics processes of products,” for example. The results can be seen in efficiency and productivity cost indicators, customer loyalty through a closer relationship, among others. The development and delivery related to the organizational competences Eco-efficiency and Socio-economic insertion could be seen based on these verifications.

Environmental Innovation refers to the condition to act in view of the simultaneous and balanced delivery of Eco-efficiency and Socio-environmental justice competences. One possible delivery of this competence would be the “Prospection and development of local suppliers in relation to the environmental requirements established by the organisation.” The results could be perceived in indicators associated with supply chain efficiency, as well as in economic and socio-environmental rates of local development. Based on the evaluation patterns es-

tablished in the organisation, the deliveries for Eco-efficiency and Socio-environmental justice could be verified.

Finally, **Social Innovation** is associated with the condition to act in view of the simultaneous and balanced delivery of the Socio-economic insertion and Socio-environmental justice competences. An example of delivery could be the “Projection of relationship channels with the surrounding community aiming at the identification and supervision of social impacts caused by the organisation.” Results of this competence could be found in studies proving the social license to operate, and in local indicators of social development. The development and deliveries for the respective organizational competences could be evaluated based on that.

When structured into a management model, the idea is that the six human competences for sustainability are integrated and interrelated and incorporated into existing competences in the organisation. Therefore, we assume that these competences – and the organisational ones – can be integrated into the model of competences to each organisation, providing opportunities for flexibility. In addition, the resources for the human competences, in terms of knowledge, skills, attitudes and values must be defined according to the stipulated deliveries and to the organisation’s reality and demand.

Despite suggesting that human competences for sustainability are stimulated to all those working in the organisation, they are especially aimed at strategic-level managers. These individuals should play a more complex role and, consequently, be more influential, since their decisions and actions have a more perceptible impact through-

out the organisation, which directly affects the direction taken towards sustainability (DUBOIS; DUBOIS, 2012; OSAGIE et al., 2014; WASILUK, 2013).

The conceptual proposal also indicates that the organisations need to recognize and value the competences for sustainability, by adopting a holistic approach integrated to the strategy, which is considered here as a prerogative for the adequate sustainability management.

EMPIRICAL RESEARCH DATA: PRESENTATION AND DISCUSSION OF TWO CASE STUDIES

Data Presentation

For the transcriptions of 19 interviews and 16 documents obtained from the case studies, 62 codes were assigned, for 1959 citations. After the codification and due revision, we proceeded to the identification of the relationships and the grouping of codes into super codes, which gave rise to nine categories of analysis that subsequently led to the creation of two themes, arranged in Figure 2.

Seeking to identify possible associations, the codes of each of the categories were crossed in the co-occurrence matrix. First, it should be noted that 11 codes of the theme Competences were eliminated from this analysis because they did not present

any association with the theme Sustainability Management. Of these, three were from the category “Human Resource Management Systems”, three from “Human Competences” and three from “Human Competences for Sustainability”. In the theme Competences, some codes presented only one co-occurrence with codes of the theme Sustainability Management: *Knowledge of the leader and Experience; Performance evaluation and Organisational Sustainability.*

On the other hand, the most expressive co-occurrences between Competences and Sustainability Management are basically between the codes *Development of the team in sustainability* and *Development of leader in sustainability*, of the category “Human Competences for Sustainability”, and *Sustainability Area*. It is worth noting that *Development of the team in sustainability* is the only code that indicates co-occurrences with all other codes of Sustainability Management. The themes are also associated based on the connections between *Eco-efficiency* and *Sustainability Strategy*. From the category and theme Sustainability Management, the codes that most indicate relationships with Competences are *Sustainability Area, Sustainability Strategy* and *Sustainability and Strategy*.

Figure 3 was developed based on the figures of the co-occurrence matrix, except for the codes that did not indicate at

Theme (Families)	Category of Analysis (Super Codes)
Competences	Human Competences
	Competence-Based Management
	Human Resource Management Systems
	Human Competences for Sustainability:
	Personal Values for Sustainability
	Organisational Competences for Sustainability
Sustainability Management	Core organisational competence
	Key organisational competences
	Secondary organisational competences
Sustainability Management	Sustainability Management

FIGURE 2 – Themes and Categories of analysis for the second phase of the empirical research.

least four associations. The horizontal axis shows the codes and the respective categories of the theme Competences. The bars, distributed in different colors, according to the legend, represent the codes of the theme Sustainability Management.

According to Figure 3, in the category “Organisational Competences for Sustainability”, the codes are linked either to *Sustainability Strategy*, or to *Sustainability and Strategy*, or to both, in the case of *Eco-efficiency*. The co-occurrences are present in one document from Braskem and four from Itau Unibanco. The data show elements evidencing that the organisational competences indicated are related to some extent with the sustainability already outlined in terms of organisational strategy and with the strategy defined for sustainability.

For example, one of the documents from Itau Unibanco contains excerpts that reflect the organisation’s position with respect to sustainability, from the interface of “Organisational Competences for Sus-

tainability” (even if not explicitly stated as such by the organisations surveyed) in relation to the business strategy. In the category “Human Competences for Sustainability”, *Socio-environmental Management* and *Eco-efficient Management* stand out in co-occurrences with the codes of the category codes and the theme Sustainability Management. They can be found in two Braskem’s documents and eight interviews from both organizations.

The co-occurrences between *Socio-environmental Management* and *Sustainability Strategy* also coincide with the co-occurrences between *Human Competence Delivery*, of the category “Competence-based Management” and *Sustainability Strategy*. They can be found in one of the documents from Braskem and refer to the delivery of human competences for the different levels of leadership in the organisation. These deliveries mention the understanding, practice, dissemination and influence in relation to the subordinates in the fulfillment

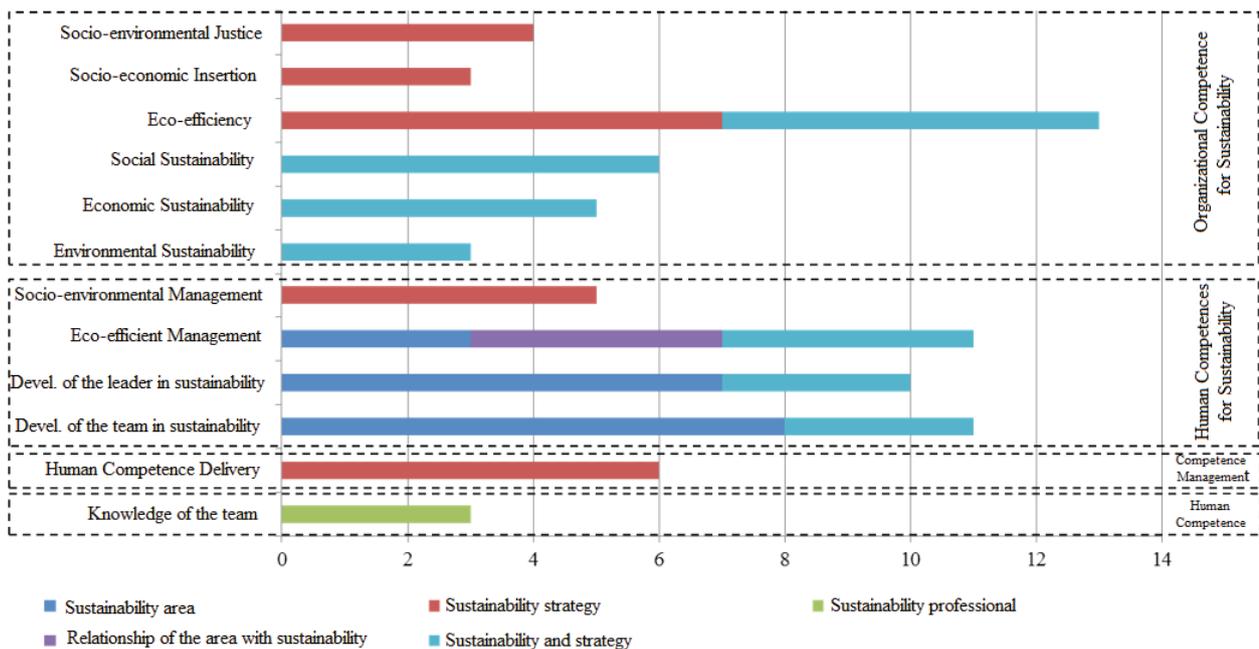


FIGURE 3 – Co-occurrence between the themes Competences and Sustainability Management.

of the procedures and principles of social responsibility and the code of conduct, ethics of the organisation. While the latter are part of a strategy defined for sustainability in the company, the actions refer to the definition stipulated for SEnvM, regarding the condition to act respecting the culture, power and policy interested in building a fair and equitable environment.

For the code *Eco-efficient Management* and its associations with “Sustainability Management”, usually, the codes *Sustainability Area* and *Relationship of the area with Sustainability* of this category were attributed to a common citation in the interviews. Managers in the following areas: marketing, strategy, and institutional relations from Braskem, and legal and finances from Itaú Unibanco, for example, claim a frequent interaction with the descriptions involving the definition and the deliveries of *Eco-Efficient Management* with the sustainability area. It could be noted in the data that these relationships, to some extent, connect to the development of human – and therefore organisational – competences for sustainability.

Still in the category “Human Competences for Sustainability” and in continuity to the subject, the codes *Development of the team in sustainability* and *Development of the leader in sustainability* are associated with the codes *Sustainability Area* and *Sustainability and Strategy*, mostly in the interviews – five from Braskem and one from Itaú Unibanco, but also in one of the documents. In the speech of the people manager at Itaú Unibanco, the issues regarding the *Development of the team in sustainability* appear when mentioning works which involve raising awareness, support and dissemination of the theme. *Development of the Lead-*

er in Sustainability is mentioned in relation to the actions that are not so simple by involving the business in the sustainability actions – hence the attribution *Sustainability and Strategy*. It is interesting to note that even in an organisation recognized for the sustainability practices, there are still gaps when it comes to the engagement of senior leaders.

Data Discussion

The data make it possible to infer the existence of interrelationships between Competences and Sustainability Management in the organisational contexts studied. These are mainly based on the human and organisational competences for sustainability, which, despite not being explicitly considered in the organisations, show signs and openness for their presence and development. These competences are associated with the sustainability strategy and with the definitions, discussions, policies and practices related to sustainability and strategy. The data do not allow us to affirm, however, that these interrelationships are consolidated or legitimized in these organisations

In summary, in the organisations studied, the discussions have already begun and there is a certain openness to associating competences with the management of sustainability in a more systematized way. Therefore, we can conclude that there is a favorable scenario for the conception and operationalization of the ideas presented regarding human competences for sustainability.

But, points discovered conceptually, and potential operational implications were also observed from the analysis. Initially, there is a need to strengthen the relationship between human competences for sustainability related to innovation (Ecol, SI and EnvI)

and to Socio-environmental Management and issues related to organisational strategy. The issue regarding the extension of human competences to all professionals in the organisation, rather than just to strategic leaders, was also raised. Therefore, it is necessary to make recommendations to remedy these points.

The analysis indicated a probable disconnection between Competences and Sustainability Management in the organisations under study, especially about human competences. This is not a surprising fact, since the academic literature also includes little empirical evidence on competences and sustainability in organisations (GALLI et al., 2016). Still, it is assumed that its pertinence is admissible, investigated and demanded (HUSTED; ALLEN, 2006; OSAGIE et al., 2014; WIEK et al., 2011).

With respect to strengthening the interrelationships between human competences for sustainability and the elements of organisational strategy, the indication is to include the latter more explicitly – through strategic objectives – in the operational definitions and in the deliveries of human competences. This is, admittedly, the competence assessments based on the deliveries that should favor changes in behavior towards the organisational goals envisioned (WOODRUFFE, 1992).

It is important to highlight that the *Sustainability Area* is an active participant in promoting these connections in the organisations studied. The existence of a sustainability area may represent a point of centralization, facilitation and coordination of the activities regarding the theme (BONN; FISCHER, 2011). But studies show that, usually, it solely consists of a structural change. It is common that the area is neglected in terms of a wider

and more strategic integration, becoming an end itself. (ALDAMA; AMAR; TROSTIANKI, 2009). In this case, it will hardly represent a factor of great influence for the development of competences or for the strategic management of sustainability.

Evidence such as these seen on the analysis, coupled with the co-occurrences between the *Knowledge of the team*, of the category “Human Competence,” and *Sustainability Professional*, of the category ““Sustainability Management”, give rise to points of discussion regarding the extension of human competences for sustainability for all the professionals of the organisation and the development of these competences, as well as on the sustainability strategies established in the organisation and the role of the sustainability area in this context.

As for extending the human competences to all professionals in the organisation, this can be done through the stratification of competences at levels of complexity. These concern the capacity for abstraction of a professional to make decisions, considering the variables involved and their implications over time. The concepts of competences and complexity can be combined by establishing what should be expected as competence for each level. Overall, authors recommend five to seven levels of complexity (McMORLAND, 2005), which should vary according to each organisational structure. Three levels are suggested for this study: strategic, tactical and operational, to keep in line with the reference of organisational competences.

We believe that solving the issues pointed out based on the survey with two organisations recognized for their actions in sustainability and competences may represent an element that facilitates the op-

erationalization of the proposal for the management of human competences for sustainability, to be presented below.

PROPOSAL FOR THE MANAGEMENT OF COMPETENCES FOR SUSTAINABILITY

After having made the theoretical considerations and analyzed the data from the empirical research, below we present a proposal for the management of human competences for sustainability based on a guiding model. As seen above, both the competences and sustainability in an organisational environment require management models so that their premises and actions are organized on a unified and coherent manner, and thus the benefits of both can be enjoyed (AZAPAGIC, 2003; VAKOLA et al., 2007).

In this sense, McLagan's (1996) recommendations will be taken as a basis, stating that it is essential to define what the competence-based management model is suitable for, how it will be developed, formatted and used. Following the author's recommendations, the following items will be clarified: 1) the information to be used in the development of the model; 2) the way competence must be defined; 3) the content of the model; 4) the result provided by the competence model; and 5) who will be involved in the process.

1) Information to be used in the development of the model

For a competence-based management model for sustainability to be properly constituted and operationalized, information regarding the organisational strategy is of fundamental importance to be strategically in line with the organisation's goals (SANCHEZ, 2004). Sequentially, the or-

ganisational competences for sustainability must be defined according to the proposed conceptual orientation and adjusted to the organisational competences already identified in the organisation. Likewise, the human competences are defined and adapted, so that the human resource management systems can also follow this orientation (recruitment and selection; development; performance evaluation; reward systems and careers).

2) The way competence must be defined

The proposal can be viewed from two perspectives once it is inserted in the organisational environment: one in which its conceptual composition – nomenclatures, terms, definitions – is literally inserted into that context and the other in which there are adaptations for the implementation in the competence-based management model already in place in the organisation. In both cases, the competences for the sustainability proposed could coexist with the institutionalized competences, already active in the organisation, or incorporated into the latter through revisions in the operational definitions and deliveries, as well as the means for their development. The adjustment to the competences and to the model already in place in the organisation is optional but recommended to ensure that the sustainability can be incorporated into the organisational reality, rather than being something marginal to its dynamics.

3) Content of the model

The suggested content of the model is as follows: organisational strategy, organisational and human competences related to sustainability, with implications for the human resource management systems. As for the strategy, elements such as mission, vision, values, planning, goals and targets are

recommended to guide and constitute the competence-based model. Thus, the issue that the strategic goals and guidelines will be in line with the sustainability goals and guidelines is incorporated and presumed.

As for the organisational competences, it is necessary to identify “what the organisation is known for” (ULRICH; DULEBOHN, 2015, p.195) and to link to the sustainability competences (central, key and support) through the operational definitions and respective deliveries. Also, the resources to be mobilized are inherent in this activity, in order to verify the resources required, existing and yet to be acquired. The organisational deliveries, in accordance with the organisational goals, also make up the model, as well as the delivery tracking tools, as proposed by Munck (2013).

The same is applied to human competences, based on the understanding of what is needed in terms of individual knowledge and actions (MAGGI, 2003) for the different levels of mastery and status (CHEN; NAQUIN, 2006), so that organisational deliveries are possible. In other words, the six competences proposed should be distributed into levels of complexity, and their deliveries defined, according to the structure of the organisation. It will then be possible to establish criteria for the preparation of the recruitment and selection, development programs, evaluation and rewards, career planning and succession (McLAGAN, 1996).

4) *Result provided by the competence model*

If developed in line with the strategy, the competences can be used as powerful communication tools, translating strategies into expected behaviors (VAKOLA et al., 2007). It is also known that the development of human competences contributes to changing people’s attitudes in relation

to the work practices and the perception of reality (BOYATZIS, 2008) – for the sake of sustainability, in this case. Therefore, the human and organisational competences for sustainability, when operationalized into a guiding management model, have the conditions to contribute to the development of a culture of sustainability in the organisation (BONN; FISCHER, 2011).

The competence-based management has the potential to ensure an alignment of the management throughout the organisation with sustainability, facilitating the necessary changes based on tools that promote common references and understandings. That provides the conditions to overcome shallow, inaccurate and/or inconsistent discourses in relation to the practice of sustainability. Managing sustainability based on competences still allows the organisation to follow up its evolution in relation to this topic, identifying gaps and improving its performance.

5) *Who is involved in the process*

It is believed that the organisational area that has the potential to and in fact can guide the management of sustainability in accordance with the terms and implications of the proposal of this study is the area responsible for management of human resources. It is suggested that it should act as a strategic partner, since it is the body that has the conditions to revise and influence behaviors and mental models aiming to restructure the organisational culture and develop a common understanding about sustainability (FREITAS et al., 2012).

In summary, Figure 4 shows the proposals, as well as other observations.

FINAL REMARKS

From the organisational behavior to human behavior, it is expected that the

Steps	1) Information to be used in the development of the model	2) The way competence must be defined	3) Content of the model	4) Result provided by the competence model	5) Who is involved in the process
Elements	<ul style="list-style-type: none"> • Organisational Structure • Existing structure of competences in the organisation 	<ul style="list-style-type: none"> • Conceptual composition of the proposal • Adaptations for the implementation in the existing management model of the organisation 	<ul style="list-style-type: none"> • Organisational competences • Human competences • Deliveries 	<ul style="list-style-type: none"> • Communication process • Introduction to the subsystems of people management 	<ul style="list-style-type: none"> • Definition of responsibilities
Observations	It is also recommended to consider the strategies defined for sustainability in the organisation.	In case there is no competence-based management model, the suggestion is to literally adopt it in conceptual and structural terms, but with flexibility to the organisational reality.	The conceptual and operational structures of the competences should be reflected in the human resource management systems.	Information related to individual performance can be translated into organisational performance, and the communication through reports is recommended.	The sustainability area may be involved in the process of development of human competences, but it is not crucial to the operationalization of the model.

FIGURE 4 – Overview of the competence-based management model for sustainability

proposals presented and discussed can contribute to instituting and legitimizing sustainability management in the organisations. By facilitating the transformation of concepts and premises into action, the competences have the capacity to put into practice discourses about sustainability. Based on a management model, this can be done through operational definitions of organisational and human competences, by establishing delivery patterns and their respective evaluations, promoting cultural change based on educational programs, and other actions of subjective nature. By interconnecting the organisational goals and the individual perspectives, while approaching social desires, the idea is that in the long term, if strategically managed by means of competences, sustainability will become the dynamics of the organisation for its own development.

As managerial implications, the intention was to provide to the organisations, their managers and other social players involved, a management architecture capable of

guiding the development of actions focused on sustainability, in a strategic, objective, coherent and improved way in relation to the existing ones. In the organisations that wish to act in accordance with sustainability, we expect to stimulate an adjustment of the processes of selection of people with appropriate profiles, in addition to helping professionals to develop the sustainability competences that they do not yet have or have at a low level.

Therefore, the proposals discussed in this study may represent a starting point to enable organisations to seek directions and adaptations to their realities when it comes to sustainability management. Particularly for organisations that have a higher level of maturity in terms of sustainability and competences management, the systematization of these two spheres into guiding models may be even more viable. For organisations that do not have or deal with these concepts in a formalized or explicit manner, the possibilities are also present, through a greater mobilization would be required,

due to the need for projects to promote changes, insertion or implementation.

As theoretical implications, this study stimulates new ways of investigating organisational performance geared towards sustainability, based on the approach to competences. The definition and evaluation of levels of maturity of the sustainability for organisations can be developed, with the structured insertion of new variables, such as deliveries, and with the recommended differentiation between sectors of activity. New research questions and new paths can be outlined to promote more in-depth research studies, considering the multiple fields of expertise, such as sustainability management, human resource management, strategy, among others.

However, we recognize that further contributions and studies on the subject are still needed. We recommend theoretical and empirical investigations to give continuity to the proposals. Primarily, we suggest the structuring and empirical application of the model proposed, to validate it, seeking confirmations, refutations and evolutions. There are also opportunities for expanding and developing the model focused on individual performance evaluation systems, career and succession systems. After that, both academic and business communities should refine their views, seeking to evolve and progress in the management of sustainability through competences, aiming at human and organisational development.

REFERÊNCIAS

- ALDAMA, L.R.P.; AMAR, P.A.; TROSTIANKI, D.W. Embedding corporate responsibility through effective organisational structures. **Corporate Governance**, p. 9, n. 4, p. 506-516, 2009.
- AZAPAGIC, A. Systems approach to corporate sustainability: a general management framework. **Trans IChemE**, v. 81, n. 5, p. 303-316, 2003.
- BARNEY, J.; WRIGTH, M.; KETCHEN, D.J. The resource-based view of the firm: Ten years after 1991. **Journal of Management**, v. 27, n. 6, p. 625-641, 2001.
- BERÉNYI, L. Developing environmental competence regional formation and development studies. **Journal of Social Sciences**, v. 3, n. 8, p. 15-24, 2012.
- BARTH, M.; GODEMANN, J.; RIECKMANN, M.; STOLTENBERG, U. Developing key competencies for sustainable development in higher education. **International Journal of Sustainability in Higher Education**, v. 8, n. 4, p. 416-430, 2007.
- BONN, I.; FISHER, J. Sustainability: the missing ingredient in strategy. **Journal of Business Strategy**, v. 32, n. 1, p. 5-14, 2011.
- BORLAND, H.; AMBROSINI, V.; LINDGREEN, A.; VANHAMME, J. Building Theory at the Intersection of Ecological Sustainability and Strategic Management. **Journal of Business Ethics**, p. 1-15, 2014.
- BOYATZIS, R. E. **Transforming Qualitative Information: thematic analysis and code development**. Sage: Cleveland, 1998.
- CAPALDO, G.; IANDOLI, L.; ZOLLO, G. A situationalist perspective to competency management. **Human Resource Management**, v. 45, n. 3, p. 429-448, 2006.
- CHEN, H.; NAQUIN, S. S. An integrative model of competency development, training design, assessment center, and multi-rater assessment. **Advances in Developing Human Resources**, v. 8, n. 2, p. 265-282, 2006.
- DE VOS, A.; DE HAUW, S.; WILLEMSE, I. An integrative model for competency development in organisations: the Flemish case. **The International Journal of Human Resource Management**, v. 26, n. 20, p. 2543-2568, 2015.
- DUBOIS, C. L. Z.; DUBOIS, D.A. Strategic HRM as social design for environmental sustainability in organisation. **Human Resource Management**, v. 51, n. 6, p. 799-826, 2012.
- ELKINGTON, J. **Cannibals with forks: the triple bottom line of 21st century business**. Oxford: Capstone Publishing Limited, 1999.
- DENZIN, N. K.; LINCOLN, Y. S. **The SAGE handbook of qualitative research**. Thousand Oaks: Sage Publications, 2005.
- FOWLER, S. J.; HOPE, C. Incorporating Sustainable Business Practices into Company Strategy. **Business Strategy and the Environment**, v. 16, n. 1, p. 26-38, 2007.
- FREITAS, W.R.S.; JABBOUR, C.J.C.; MANGILI, L.L.; LEAL FILHO, W. & OLIVEIRA, J.H.C. Building sustainable values in organisations with the support of human resource management: evidence from one firm considered as the 'Best Place to Work' in Brazil. **Journal of Human Values**, v. 18, n. 2, p. 147-159, 2012.
- GALLELI, B.; MUNCK, L.; HOURNEAUX JUNIOR, F.; CORREA, H. L. Competências humanas para a sustentabilidade: uma revisão sistemática da literatura. **Anais... XL Encontro da Associação Nacional de Pós-Graduação e Pesquisa em Administração**, Costa do Sauípe, 2016.
- GLAVAS, A.; MISH, J. Resources and Capabilities of Triple Bottom Line Firms: Going Over Old or Breaking New Ground? **Journal of Business Ethics**, v. 127, n. 3, p. 623-642, 2015.
- GUTHRIE, J., PETTY, R., YONGVAN-ICH, K.; RICCI, F. Using content analysis as a research method to inquire into intellectual capital reporting. **Journal of Intellectual Capital**, v. 5, p. 282-293, 2004.
- De HAAN, G. The BLK '21' programme in Germany: a 'Gestaltungskompetenz'- based model for education for sustainable development. **Environmental Education Research**, v. 12, p. 19-32, 2006.
- HALAND, E.; TJORA, A. Between asset and process: developing competence by implementing a learning management system. **Human Relations**, v. 59, n. 7, p. 993-1016, 2006.
- HART, S.L.; DOWELL, G. A Natural-Resource-Based View of the Firm: fifteen years after. **Journal of Management**, v. 37, n. 5, p. 1464-1479, 2011.
- HUSTED, B.W.; ALLEN, D.B. Corporate social responsibility in the multinational Enterprise: strategic and institutional approaches. **Journal of International Business Studies**, v. 37, n. 6, p. 838-849, 2006.
- Van KLEEF, J.A.G.; ROOME, N.J. Developing capabilities and competence for sustainable business management as innovation: a research agenda. **Journal of Cleaner Production**, v. 15, n. 1, p. 38-51, 2007.
- MAGGI, B. **De l'agir organisationnel: un point de vue sur le travail, le bien-être, l'apprentissage**. Toulouse: Octares, 2003.

- McLAGAN, P. Competence Models. **Training and Development**, v. 50, 50-54, 1996.
- McMORLAND, J. Are you big enough for your job? Is your job big enough for you? Exploring levels of work in organisations. **University of Auckland Business Review**, v. 7, n. 2, p. 75-83, 2005.
- MILES, M.B., HUBERMAN, A.M. & SALDAÑA, J. **Qualitative Data Analysis: a methods sourcebook**. (3. ed). Thousand Oaks: SAGE Publications, 2014.
- MOHRMAN, S.A.; WORLEY, C.G. The organisational sustainability journey: Introduction to the special issue. **Organisational Dynamics**, v. 39, p. 289-294, 2010.
- MUNCK, L. **Gestão da Sustentabilidade nas Organizações: reflexões e propostas a partir das lógicas do agir organizacional e das competências**. São Paulo: Cengage Learning, 2013.
- MURTHY, V.P. Integrating corporate sustainability and strategy for business performance. **World Journal of Entrepreneurship, Management and Sustainable Development**, v. 8, p. 1, p. 5-17, 2012.
- OSAGIE, E. R.; WESSELINK, R.; BLOK, V.; LANS, T. & MULDER, M. Individual Competencies for Corporate Social Responsibility: a literature and practice perspective. **Journal of Business Ethics**, p. 1-20, 2014.
- PRAHALAD, C. K., & HAMEL, G. The core competence of the firm, **Harvard Business Review**, v. 3, p. 79-91, 1990.
- PROGEP-FIA. **Melhores empresas para você trabalhar**. São Paulo: Abril, 2014.
- ROORDA, N. Sailing on the winds of change: the odyssey to sustainability of the universities of applied sciences in the Netherlands. **Tese de Doutorado**. Universidade de Maastricht, Maastricht 2010.
- RUSSO, M.; FOUTS, P.A. A resource-based perspective on corporate environmental performance and profitability. **Academy of Management Journal**, v. 40, n. 3, p. 534-559, 1997.
- SPANOS, Y.E.; PRASTACOS, G. Understanding organisational capabilities: towards a conceptual framework. **Journal of Knowledge Management**, v. 8, n. 3, p. 31-43, 2004.
- STAKE, R.E. Qualitative case studies. In: Denzin, N.K.; Lincoln, Y.S. **The SAGE handbook of qualitative research**. (3. ed). Sage Publications: United States of America, 2005.
- THACH, S.B.; ENG, E.; THOMAS, J.C. Defining and assessing organisational competence in serving communities at risk for sexually transmitted diseases. **Health Promotion Practice**, v. 3, n. 2, p. 217-232, 2002.
- ULRICH, D.; DULEBOHN, J. H. Are we there yet? What's next for HR? **Human Resource Management Review**, v. 25, n. 2, p. 188-204, 2015.
- VAKOLA, M.; SODERQUIST, K.E.; PRASTACOS, G.P. Competency management in support of organisational change. **International Journal of Manpower**, v. 28, n. 3, p. 260-275, 2007.
- VALENTE, M. Theorizing Firm Adoption of Sustaincentrism. **Organization Studies**, v. 33, n. 4, p. 563-591, 2012.
- WESSELINK, R., BLOK, V., VAN LEUR, S., LANS, T., DENTONI, D. Individual competencies for managers engaged in corporate sustainable management practices. **Journal of Cleaner Production**, v. 106, p. 497-506, 2015.
- WIEK, A.; WITHYCOMBE, L.; REDMAN, C.L. Key competencies in sustainability: a reference framework for academic program development. **Sustainability Science**, v. 6, p. 203-218, 2011.
- WILKINSON, A.; HILL, M.; GOLLAN, P. The sustainability debate, **International Journal of Operations & Production Management**, v. 21, n. 12, p. 1492-1502, 2001.
- WOODRUFFE, C. What is meant by competency? In: Boam, R. & Sparrow, P.R. (Eds.). **Designing and achieving competency**. Maidenhead: McGraw-Hill, p. 16-30, 1992.
- WRIGHT, P. M.; DUNFORD, B. B.; SNELL, S.A. Human resources and the resource based view of the firm. **Journal of Management**, v. 27, p. 701-721, 2001.
- YIN, R.K. **Case Study Research Design and Methods**. 5 ed. Thousand Oaks, CA: Sage, 2014.