INTEGRATING ERGONOMICS INTO SUSTAINABLE BUSINESS DEVELOPMENT

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ABSTRACT
Debating the issue is justified and useful, given that the "business world" is facing new challenges and numerous difficulties, many of which can be overcome by integrating ergonomics into sustainable business development. The option for such concerns is also the result of reflections by specialists, the existence of reference works in the field, and a relatively large number of authors who already associate new paradigms regarding the value of ergonomics for business. The new business orientations, however, require a new organizational behavior, a change in the responsibility of business people in relation to the consequences of their actions and decisions. A new way of thinking about business and the competitive market, its signals, is necessary, which obviously implies a new way of managerial action that does not limit the concerns of organizational development or diminish the tendency to integrate ergonomics in sustainable business development.

KEYWORDS: *business ergonomics, ergonomic management, ergonomic marketing, ergonomic culture, sustainable business.*

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1. CONCEPTUAL CLARIFICATIONS AND DEVELOPMENTS

In a world marked by profound *changes* in the *business environment*, one of the most significant *challenges* in the field of management in general and ergonomics in particular consists in adopting a *new business philosophy* or moving from *traditional ergonomics* to a new paradigm of *ergonomics businesses*.

Bringing such an *issue* into *debate* proves to be fully justified and particularly useful in the conditions in which today the "*business world*" faces *new challenges* and numerous *difficulties*, many of which can be overcome, among others, by the integration of ergonomics in the *development of sustainable business*.

The option for such *concerns* is also the result of some reflections, the existence of reference works, and a relatively large number of authors from foreign specialized literature who already associate *new aspects* or *paradigms* regarding *ergonomics* and its *value for business* (Dul, 2009). Thus, *Jan Dul* (2009), a prominent representative of the *School of Management in Rotterdam* (*Erasmus University, The Netherlands*), mentions that the *models* and *practices* presented in the specialized literature show that *ergonomics* can *contribute* to the *achievement of the purpose* (*business objectives*) and can *add value to* modern *business*, although many organizations are not yet aware of this reality. From this perspective, prominent figures in the field of ergonomics, such as *Hal W. Hendrick* and *Martin Helander*, former Presidents of the International Ergonomics Association,

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have pointed out that *ergonomics* itself *has a problem* with its *acceptance* and *implementation* in the *business world*, mentioning in this sense various frequently cited reasons presented extensively in the specialized literature.

However, the released signals bring *ergonomics* ever closer to the *needs of modern business*, illustrating, at the same time, the interaction of these fields, their integration, and prove the *contribution of ergonomics* to the *achievement of business objectives*. This is all the more so since, in the opinion of specialists in the field, ergonomics initiatives must represent *a natural fit* with the *philosophies* of *continuous improvement* (*Monroe et al., 2012*), and the *business objectives* that an organization wants to fulfill them must be, rather, the *expression* of *continuous improvement objectives*, rather than of targets to be reached (Majchrzak, 2006).

Also, it should not be overlooked that "increasing efforts for *continuous improvement* really *require* profound *changes* throughout the organization" (*Zink*, 1996; *Carayon & Smith*, 2000).

In other words, the *process* of *continuous improvement*, as a *proactive process*, must be developed on the most *comprehensive basis* by promoting *models* that aim, among others, including the *integration of ergonomics* in the *sustainable development of business*, or in other words, the *approach to business* from the *perspective of the requirements of ergonomics* and expectations of all internal and external stakeholders.

A close conception, but with additional mentions, regarding the *approach to business* from the *perspective* of *people*'s expectations, is also expressed by other authors, such as, for example, the famous British businessman, Richard Branson (2012), who in a reference work, with a title worthy of a *new paradigm* in economic science (Branson, 2012), *mentions* the fact that "*business* is *for people*; doing good is really good for business; for this, however, we *must* look beyond *business*". Beyond many other meanings or meanings, *businesses* of any kind must be *people-oriented* and, naturally, they will produce benefits or advantages not only for those who undertake them, but also for all internal and external stakeholders, who, in turn, assume certain risks. In this sense, the EU's strategic framework for safety and health at work 2021-2027 recommends the development of the analytical base and guidelines necessary for risk assessment, including ergonomic ones.

From the perspective of this new business orientation, it is necessary, however, to move to another organizational behavior, to a major change in the responsibility of business people in relation to the consequences of their actions and decisions or what is happening not only in the business world, but and in the organizational and social environment, aspects that actually have their source not only in *business management* but also in *ergonomic management*. Therefore, the research results highlighted the need to establish an *ergonomic management system* whose main objective must be the *integration of ergonomics* in the *general management* of organizations and implicitly in the *sustainable development of their businesses* (Neves &Vidal, 2015).

Therefore, understanding *ergonomic management* as a *recent mutation* in a series of trends and developments that characterize managerial theory and practice, *François Hubault*, former *Director of the Ergonomics Department* at the *Sorbonne University*, mentions the fact that "the *ergonomic approach* constitutes, by itself , a *challenge* for *management*". Bringing a substantial *change* in the *management* of the *organization* in general and in the *human resources management* in particular, beyond the *multiple favorable influences*, the notional or conceptual and methodological *additions* that the *ergonomic management* generates, boost the advances of scientific knowledge which, in turn, allow us developments in organizational and managerial theory and practice.

Specialists in the field suggest, in fact, the *need to promote new paradigms*, *new concepts* that bring profound changes in our conception of the new organizational realities, which can no longer be understood in terms of classic or traditional concepts. Relative recent concerns about the formulation of *alternative models* to explain the behavior of modern companies starting from many more *assumptions* of *sustainable business development* are obvious.

The *justification* of such a scientific *approach* starts from the fact that there are many *other objectives* of organizational management that represent the expression of other reasons for the existence of

organizations or *sustainable business development*, among which we mention the need to *integrate ergonomics* into *their business strategy*. This means that *ergonomics* does not consider *scientific knowledge* as an end in itself but seeks a *change* in the *organizational culture* in the sense of implementing, including, an *ergonomic culture* that contributes through its *synergistic effect* to the *sustainable development of businesses.*

Trying to respond to these *new challenges* regarding the *explicit integration* of ergonomics in *sustainable business development*, according to some specialists in the field, expressed in the proceedings of the *16th World Congress of the International Ergonomics Association* (Maastricht, The *Netherlands*, 2006) "*ergonomy* it can *add value* to a company's *business strategy* and by achieving *intermediate goals*, such as ensuring high quality or satisfying customer or user requirements" (Dul & Neumann, 2006). This is especially true since the basic *functions* of *ergonomic management* and *ergonomic marketing* support the *objectives* of the various *functions* of the *business*. For example, *ergonomic marketing*, which is a modern, complex, and *multidimensional* concept, specific to the market economy, with major implications for the management of organizations, has as its main *objective*, among others, the *development* of *ergonomic products* and *services* in order to ensure competitive success and *sustainable business development*. Through this *marketing technique*, in fact, *ergonomic requirements* are *integrated* into the development and design process of products and services, and the *advertising related* to them is promoted, *advertising* that must take into account, including the promotion of an *ergonomic labeling system* that offers customers or end users *additional information* on *ergonomic features* of products and services.

Therefore, a *new way* of *thinking about business* in general and the competitive market in particular *is necessary*, its signals, which obviously imply a *new way of action* that does not limit the concerns of organizational and managerial development and that diminishes the tendency to integrate ergonomics in sustainable business development.

2. ERGONOMICS AND BUSINESS SUSTAINABILITY

Although the perspective of *sustainable business development* is relatively new to ergonomics, the efforts of some personalities of the ergonomics community such as professors *Klauz J. Zink (Department of Management and Human Factors*, Kainerslautern University, Germany, former President of the German Ergonomics Society) and *Colin G. Drury* (*Department of Industrial Engineering*, University of Buffalo, New York) who constituted, within the International Ergonomics Association - IEA, the "*Technical Group*" specialized in "*Human Factors* and *Sustainable Development*" (2008), a particular relevance having and the publication of the work "*Ergonomics and sustainability*" (2013).

Relatively recent research and surveys that aimed to *identify* the *converging* areas of *ergonomics* and *sustainable development* also highlight the fact that, although sustainability issues are growing and sustainability has considerably stimulated many areas of activity and business-related professions , *ergonomics* has *lagged behind* from the *perspective* of this *paradigm* (Wise, 2001).

In this context, the *studies* focused mainly on *identifying* the directions that facilitate the best possible *integration* of *ergonomics* in sustainable *development*, *research* being *intensified* in those *converging fields* that have a high potential to *capitalize* on the *contribution* of *ergonomics* to the *success of sustainable development.*

From this perspective, although the issue of work has not always been linked to sustainability, the reference work (Radjiyev et al., 2015) tries to define the concept of work, in its multiple interpretations, in a context of sustainable development.

Consequently, since *ergonomics* is a scientific field related to *work* and implicitly to *sustainability*, concerns have been intensified regarding the *identification* of the *position* of *ergonomics* within the

relations between them, as well as the *opportunities* for *ergonomic actions* to contribute to *sustainable work* (Bolis et al., 2014). This is all the more so since, in the opinion of specialists in the field (*Haslam* and *Waterson),* "*there is a natural synergy* between *sustainability* and *ergonomics* that allows a better understanding and *optimization* of the results of human-system *interactions*".
Therefore, although the *perspective of sustainable development* is relatively new to ergonomics, *business sustainability cannot be separated from the evolution of ergonomics* because only *together* can modern organizations demonstrate their *ability* to *adapt* to the business environment and achieve the highest *sustainable performance*. The *economic objective of ergonomics,* which is the performance of any sociotechnical system, and the *social objective of ergonomics* which consists in the well-being of the human being (Dul & Neumann, 2009) are, in fact, two objectives that *correspond* to the two *dimensions* of *sustainability*, namely the economic dimension (*sustainability economic*) and the social dimension (*social sustainability*) that can be *balanced* and *optimized* simultaneously and unitarily.
Also, considering occupational *safety* and *health* in *business policies,* as well as working conditions or competitive performance, from a long-term perspective, makes it possible to ensure "*sustainable production systems*" (Westgaard & Winkel, 2011) .
Therefore, a *major challenge* of modern organizations and one of the most current and complex problems of managerial theory and practice in the field of business is the *assessment of business sustainability* from the *perspective of ergonomics*, many specialists in the field being concerned not only with the meanings associated with this concept, but also and assigning a more *complete* and appropriate *content* to the *concept* of *business sustainability* from the *perspective of ergonomics* (Genaidy et al., 2009).
A modern and evolved version was expressed at the *International Conference* of the *Ergonomics Society* in *Latvia* (Riga, 2011), where the *role of ergonomics* in the latest *business philosophy* was debated and the idea of "sustainable *business development* as a *lifestyle*"(Davidson, 2014) was 'launched', an approach supported and promoted within the *International School* of *Economics* and *Business Administration* in *Latvia*.
Also significant is the opinion of Professor *Marcelo Soares* (2012), expressed during the *18th World Congress* of *the International Ergonomics Association* (Recife, Brazil, 2012) who, as President of the congress, mentioned the fact that "*ergonomics*, as discipline that engages in the *design of interactions* between people and the other elements of a socio-technical system *must consider'sustainability'* as a *key aspect* in *optimizing resources* to *improve* people's 'well-being".
A similar concept, with additional mentions, is also expressed by other authors (*Brown* & *Leeg*, 2012), who, addressing the *issue* of the *relationship* between *ergonomics* and *sustainable business* and noticing the obvious increase in pressure related to the *social responsibility* of modern organizations, such as and the existence of a *gap* between *intentions* and *deeds*, underlines the fact that "the *association* between *ergonomics* and *sustainable development* leads to a *set* of *knowledge* and *methodologies* that support the *strengthening* of the *link* between "*good intentions*" and "*good deeds*" and ultimately lead to "*good business*".

3. CONCLUSIONS

Therefore, beyond the particularly complex issue, challenging enough and fully justified, its integrative, holistic nature through its values, functions, dimensions, and implications, including through the positive effects it generates, the integration of ergonomics in the sustainable development of business, or in other words, the approach to business from the perspective of ergonomics requirements, leads to approaching the potential of ergonomics to the needs of modern business and not ultimately to "organizational requirements".

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