

Intellectual Capital and Innovation Capacity: The Human Factor as an Inducer of Innovative Organizations

Business organizations around the world seek to achieve a sustainable competitive advantage in order to remain competitive over time. The necessary mechanism for this is continuous product and process innovation, enabling the organization to remain successful in today's dynamic and competitive markets. This is because it is only through continuous innovation that an organization can both overcome major competitive challenges and keep up to date with changes in the various factors related to its products and processes. Continuous innovation, in turn, is the result of a set of capabilities that give the organization the flexibility it needs to constantly reconfigure itself. These dynamic capabilities consist of the organization's ability to allocate resources to integrate, build and reconfigure internal and external competencies to adapt to these dynamic environments.

In the early economic theories, organizational resources were restricted to capital, labour and land. However, as a consequence of the evolving dynamics of today's markets, resource theory has expanded the notion of organizational resources, defining them as "tangible and intangible entities that the organization has at its disposal and which enable it to produce more efficiently or effectively". The set of intangible resources is referred to by various authors as intellectual capital, understood as those resources that do not have a physical existence, but which nevertheless represent value for the company. This includes both human intellectual capacity and other intangible assets resulting from the application of knowledge, including brands and patents.

There are at least three good reasons for an organization to seek sustainable competitive advantages through strategies and operations based on the competent use of intellectual capital: a. to increase the capacity to generate innovations; b. to minimize the necessary investments (since it is an economic asset); c. to facilitate the integration of the demands of the various stakeholders (since the processes involving knowledge depend heavily on the human factor).

The main current of thought identifies three dimensions, or sets of factors, that make up intellectual capital:

- human capital, representing the knowledge and skills of employees, made available to the organization;
- structural capital, involving both software and management systems, as well as other organizational assets that can be listed under the category of "intellectual property" (brands, patents, among others);
- relationship capital, corresponding to the generation of knowledge resulting from relationships with other organizations, such as clients and suppliers.

Sustainable competitive advantage, therefore, is no longer rooted solely in tangible resources and financial capital, but rather in the effective channeling of the organization's intellectual resources. It so happens that a lot of research has been carried out on increasing innovation capacity with a focus on factors originating from tangible resources, while the evaluation of factors originating from intangible capital, such as intellectual capital, is still relatively limited.

A recent study, carried out in 2023 by researchers Partiw, Luh and Chariri with 308 SMEs in Indonesia, aimed to investigate the relationship between the dimensions of intellectual capital (human capital, relational capital and structural capital) and sustainable competitive advantage, as well as the relationship between sustainable competitive advantage and organizational performance. The results show that there is a significant positive relationship between each of the three dimensions of intellectual capital and sustainable competitive advantage. These results also

showed that sustainable competitive advantage is positively related to organizational performance.

Another study, also carried out with companies operating in Indonesia by Lianto in 2023, aimed to identify and select the main factors related to intellectual capital that impact the innovation capacity of that country's industrial sectors. This study used both a systematic literature review and focus groups on the topic of interest. As a result, 18 factors were initially identified. Once this was done, statistical methods were applied to determine the main influencing factors, which were found to be: adaptability, innovative behaviour, organizational culture/climate and relationships with other organizations. The results also showed that three factors linked to human capital - adaptability, innovative behavior and motivation - are determinants of innovation capacity.

These studies show that, in volatile markets such as the current ones, the sustainable competitive position of business organizations is strongly influenced by their intellectual capital. Intellectual capital is therefore perceived as one of the most valuable organizational resources because it enables the sustainable development of the organization. All three dimensions of intellectual capital - human capital, relational capital and structural capital - are a source of innovation, enabling the organization to maintain an effective and sustainable competitive position. Developing a sustainable business is a challenge, especially for small companies operating in developing countries. For these companies, the dimensions of intellectual capital are particularly relevant, as they are an important driver of innovation, which in turn stimulates innovative performance and a sustainable competitive position. This is because the costs of acquiring tangible resources - such as equipment, special materials, tests - are high, given their financial limitations for investment. Small companies in developing countries are therefore led to prefer intangible resources, especially intellectual resources.

All these results point to the importance of competent people management in the organization. Managers must bear in mind that, much more than simply a "workforce", employees are sources of intellectual capital, this valuable economic resource in today's markets.

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Further reading:

Ju, J. (2023). How open innovation drives intellectual capital to superior organizational resilience: evidence from China's ICT sector. *Journal of Intellectual Capital*, 24(6), 1464-1484. <https://doi.org/10.1108/JIC-12-2022-0251>

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Paoloni, M., Coluccia, D., Fontana, S. and Solimene, S. (2020). Knowledge management, intellectual capital and entrepreneurship: a structured literature review. *Journal of Knowledge Management*, 24(8), 1797-1818. <https://doi.org/10.1108/JKM-01-2020-0052>