

The Innovative Organization. Development of an Index to Measure Innovation Potential in the Organization

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Abstract: *Defining an organization as innovative in Israel's ecosystem can affect its economic and social value. Organizational innovation has many definitions, but does innovation activity within the organization define the entire organization as an innovator? This study made use of qualitative methods of questioning and analyzing the conclusions of experts, who analyzed various indices of innovative activities in the organization as they appear in various indices of leading consulting organizations in the world, with the aim of trying to understand whether it is possible to develop an index that defines an organization as innovative. From 110 innovative organizational activities, an index of 10 indicators was created. But it turned out that these indicators do not define an innovative organization, but rather an organization's potential to be innovative. Apart from one dimension of social impact, which indicates the inability of a customer to carry out a behavioral reset after starting to use an innovative product or service. The other indicators were successfully tested on various organizations in Israel and made it possible to measure organizations and compare their innovative potential. As well as in business mentoring processes for managers, who sought to develop the organization as an innovative organization.*

Keywords: *Potential growth, Disruptive innovation, Inner Innovation, Innovation Index, Social impact.*

Internal Organizational Innovation

Innovation can be defined by several ways. One, can define innovation as the successful implementation of a solution based on a new idea / method / process / technology that brings value to the organization. The innovation is based on innovative ideas, or on different methods than before and on developing technology (Crossan, & Apaydin, 2010). Organizational innovation aims to new product or service (Jackson, 2011), or even a major modification of an existing product or service. This may include the expansion of new products, services and markets, production methods, or a value-added management approach to the organization (Crossan and Apaydin, 2010, Lundvall, 2010).

Innovation can occur at 3 different levels: The conservative: is expressed in the improvement of the existing performance or features valued by the customers of the product in a linear and continuous process that aims to improve the existing one. Optimizing: whose purpose is to improve and optimize an existing product or service, usually by offering a profitable business model for the company and profitable for customers. Disruptive: the one that creates rapid, radical, and disruptive changes in the actual process, product or business model (Christensen, Bartman, & Van Bever, 2016). This type of innovation occurs when employees discover or when customers demand, products or services, or innovative technologies that were not previously on the market, developed by research institutes, startups or academic research processes.

The technological revolution in the 21st century requires organizations to deal with a turbulent environment, full of changes. Those innovation technologies develop at an exponential rate, due to customer requirements change which demand for quality, speed and customization (Camisón, & Villar-López, 2014). This innovation can cause uncertainty and disruptions in business models, service methods and products. All these together exaggerate the competitiveness, the level of risk and the scope of opportunities for the growth of the organization. Disruptive innovation can create a threat to the organization and inevitably results in fast, aggressive processes and organization, sometimes also market loss, breaking into new markets and income. But no less than that there is the possibility of the extinction of the organizational product or service and the stopping of the organization's activity. This is a fundamental process with the highest risk for the existence of the organization (Snihur, & Tarzijan, 2018).

Can Innovation be Measured?

In light of the above, there is a fundamental organizational need - to be an innovator. To try and be proactive in the complex market, ahead of competitors

and in accordance with customer requirements (Crossan, & Apaydin, 2010).

So, what does it take for an organization to become an innovator? What is required for that organization to become not only an innovator but a disruptive organization, capable of creating, assimilating and implementing innovation in accordance with the external market challenges and the internal work environment? Can an organization operate in a situation of permanent and constant support in innovation processes?

Methods for Testing Innovation

Different studies refer to key indexes that try to test the development or presence of innovation. These indicators are important for determining the value of the organization over time. This means that an innovative organization does not have to be profitable or unique at a given time, but strategically, a high value of innovation in the organization gives the organization more value because of the possibility of developing innovative products and services over time (Crossan, & Apaydin, 2010). It is possible to specify the main and well-known methods for testing the presence of organizational innovation [most of global consulting companies]. Most of these methods rate the companies being tested on scales of different types of innovation. (Dutta, Lanvin, Wunsch-Vincent, & León, (eds.). 2022):

The McKenzie method checks the degrees of digital maturity - the DCF model. TCMF model.

The Bloomberg Innovation Index, (World Intellectual Property Organization (WIPO).

The global index for innovation (Global Innovation Index GII), and the International Innovation Index (International Innovation Index).

Each organizational activity found in the context of organizational innovation focused attention on specific areas that must be examined in the organization to identify innovation. The topics that pointed to expressions of intra-organizational innovation were many and reached up to about 110 different indicators in many areas concerning: organizational culture, work processes, budgets, regulations, business models, use of DATA and social impact (Mulgan, & Norman, 2013). Social impact is a measure that expresses the ability of the product or service to influence the behavior of employees and/or customers following the use of the innovation (Zhu, Kraemer, & Xu, 2006). The purpose of this study: to understand who is an "innovative organization". Which of the organizational activities

that provide innovation can take part in a focused and clear index indicating "innovative organization" in the business ecosystem in Israel. Defining an innovative organization can lead to an increase in the economic and social value of an organization, since as such it is probably able to disrupt the business environment over time and lead the competition in the specific sector.

The various indicators compiled from various studies indicated many organizational activities, but the goal was to conclude from the content, whether the organization can be considered an innovative organization. As mentioned, the indexes are very numerous and refer to almost every aspect of the organization's activity, whether innovative or efficient or organized.

If so, the research question was: Is it possible to define a focused and clear index, adapted to the ecosystem of the organizations in Israel, and able to give an indication of an "innovative organization". Not just an organization that includes innovative activities, but one that can be called an "innovative organization". And again, it is important to note that this value of innovation has an immediate impact on the economic and social value of the organization. Because it indicates not only real-time innovation, but the possibility of continuing to develop innovation that will allow the organization to disrupt the market, to advance more and more profitably than its competitors (Vărzaru, Bocean, Mangra&Mangra, 2022).

The Method of Analysis

In accordance with the theoretical basis, the aspects of organizational activities that express innovation, were tested in practice in different organizations.

A qualitative study was conducted that focused on questioning IT experts from a variety of business organizations in the Israeli ecosystem. Organizations that are members of the association that promotes business IT in Israel: Israel Information Technology Bureau.

Measures were taken for internal organizational activities that were considered innovative in the various measures reviewed above. The respondents were divided into several groups:

- IT managers in actual organizations.
- Researchers in the academy who dealt with this issue.
- Senior business consultants in the IT field with rich past experience in the Israeli ecosystem.

A total of 30 experts were interviewed.

A 3-step process was carried out.

1. Begin by listing about 110 different indicators found in the various measurement methods listed above as relevant for testing innovation in the organization.

2. Second step: The experts were asked to decide which of the various indices should be referred to as stated in the intra-organizational innovation index regarding the Israeli ecosystem. The process is done referring to a group of questions expressing the different types of indicators found in the literature.

3. Third step: The analysis of the answers included several steps: a comparison was made between the answers of the experts regarding each of the indices found while trying to reach reliability between judges.

1. Mention of an index by at least 3 different experts will be considered relevant to an innovation index of an ecosystem in Israel.

2. Each index that emerged as relevant will be formulated by the opinion group of the experts who specified it.

3. Each expert was asked about the level of relevance of each index for determining innovation and according to this level an attempt was made to rank the indices for innovation.

Findings

The organizational indicators chosen to measure the innovation potential [Innovation Capability], by the experts included:

1. Environmental or social impact of innovative products and services. Practical change of consumer and customer behavior following organizational innovation (Mulgan, & Norman, 2013).

2. Top-Down value perception regarding the strategic need of innovation for the organization. While analyzing the understanding of the market and the customer's needs, preparing the organizational capabilities,

3. Emphasized and declared representation of the values and needs of innovation in the corporate internal communication. From the vision to the day to day.

4. Forming a management support basket for the innovation activity in the organization.

5. Acceleration units, development of internal organizational acceleration processes,

6. Data-based decisions. Using data as a basis for the development of innovation needs and innovation directions. Analyzing customer data and analyzing future trends in the field.

7. Supportive and tolerant management for trials and even mistakes. Support for employees who are motivated to enter digital transformation processes and innovation management.

8. Establishing dedicated budgets to reward employees who create, assimilate, and make use of innovation in work processes.

9. Promotion and support of leading innovation talents.

10. Holding an organizational training and apprenticeship activity designed to strengthen the thinking, ability and execution of innovation in all organizational systems.

Discussion and Conclusions

After summarizing all three steps based on the 110 indexes collected. Several conclusions emerged:

To our surprise, the first conclusion that emerged after examining the innovation indicators in organizations, by almost all the experts, was: that these indicators do not express innovation in practice, but only the organization's potential to develop innovation.

The experts claimed that these indicators express just the ability of the organization and its employees to create innovation. The various indices expressed a value concept for innovation, some hinted at mechanisms that made innovation possible. The experts claimed that the willingness to promote employees with innovative ideas and even products that seem innovative, were not indicators that showed the innovation, but only the basis, the fertile ground prepared for the creation of innovation in the organization. Not innovation, but innovation potential.

According to the experts' view, in many cases there is a stoppage between the potential and the actual implementation of innovation in the organization. Although the transition from potential to execution depends in most cases on the readiness of senior managers from the CEO level, to allow employees to experiment, to be tolerant of mistakes. But these are not After summarizing all three steps based on the 110 indexes collected. Several conclusions emerged:

The first conclusion reached by about 70% of the experts, after examining the variety of intra-organizational activities defined as innovative, was: that these organizational actions do not express an

innovative organization in practice, but only the organization's potential for developing innovation.

The experts claimed that these indicators do express the potential of the organization and its employees to create innovation, but they cannot define the organization as an innovator in real time, since a collection of activities, even if effective and unique, still do not indicate a fixed and defined nature of an organization as an innovator. In their opinion, the various indices expressed a value concept for innovation, some hinted at mechanisms that enabled innovation. The experts claimed that the willingness to promote employees with innovative ideas and even products that seem innovative, were the basis, the fertile ground prepared for the creation of innovation in the organization, but they do not define an organization as an innovator.

According to the experts' view, in many cases there is a stoppage between the potential and the actual implementation of the innovation in the organization. Although the transition from potential to execution depends in most cases on the readiness of senior managers from the CEO level, to allow employees to experiment, to be tolerant of mistakes. But these are not the factors that represent an innovative organization. Even when referring to management's support in the use of innovative solutions and products adopted by Early Adopters employees, they claimed that It is about the willingness to risk the practical use of products, services or technology that is outside the traditional organizational framework and not about actual innovation. Also, the reference of the experts to the processes that promote innovation in the organization, they claimed that it is about high managerial ability and a high value level but less of an indicator that teaches about an organization as an innovator. It turned out , that innovation cannot be quantified by a precise KPI, and not by processes and methods that have the potential to develop innovation.

Another conclusion was: that innovation in one organization cannot be compared to innovation in another organization. Different experts treated the various indicators differently and claimed that in every innovation process there are many variables involved in the development and marketing of the innovative product and in the work process itself and that every organization has its own culture and has its own environment. The product and its working methods. Each culture has a different configuration of indicators and a different configuration for defining innovation.

An organization in the transportation sector differs in its approach to innovation from a retail organization in the food sector, and both differ in defining innovative activity from a government organization. Moreover, innovation is not seen as innovation in another organization even if they compete in the same sector. Management support in one organization can promote innovation in an amazing way, and the same support in another organization operating in a different way may suppress innovation.

A third conclusion was reached by about 60% of the experts, that the organization's main challenge is not to be considered an innovative organization, since this cannot be done. Instead, define those required organizational activities that allow the innovation potential in the organization to be tested, as was done in the indices of the global consulting organizations above. This conclusion did not support the research question of this study.

A fourth conclusion was: the social impact (Mulgan, & Norman, 2013). According to the experts [90% of them agreed on this] this index is the only one that has the ability to define an organization as an innovator. This index measures the impact of innovation on customer behavior over time. But the measurement does not deal with the immediate change of behavior, but after the start of using the innovation. The index refers to the ability to reset the behavior as it was before the innovative change. If the behavior can be restarted, it means that no innovation was created. But, as soon as the initialization is difficult, it can be said that there was a behavioral impact on the customer and the innovation was "perceived" as meaningful and practical. It is impossible to measure this index within the organization but on the customers over time. Social impact, as mentioned, is a measure that expresses a behavioral change in customers after using a product or service. If the behavior is different from the routine it had in the past, it can be defined as a novelty. This conclusion is interesting because most experts claimed that this is the only measure available to define innovation in practice. It can be said that this topic requires further research in the future and that a more precise definition of client behavioral initialization is required.

In Practice

This index of innovation potential was tested for the first time in the competition held in advance of the annual conference of the Bureau of Information Technologies in 2022. The evaluation team used the index in the process of selecting the organizations with

innovation potential. After an evaluation process that lasted several months, 2 organizations arrived with a high organizational potential for innovation.

One organization expressed the innovation in practice in its very existence. The organization was established to implement a new solution. The organization itself was established within a few months within a defense bureaucratic framework but developed as a center of knowledge and as an accelerator for the creation of innovation in the entire bureaucratic body. This organization practically has all the indicators for innovation potential.

A second organization, which to our surprise was also in the governmental public sector in the field of water. Although the indicators of this organization came out at a medium level, both the employees and the customers clearly expressed the behavioral change they underwent in water consumption and in measuring the required amount of water. This impact was a significant part in choosing this organization as innovative.

In addition, a team of experts was established with the aim of mentoring and guiding managers to promote organizational innovation. The goal was to create a group of experts with systemic insight, who combine internal knowledge and extensive experience, who will act as a group of consultants, in accordance with the innovation index, for the benefit of accelerating and improving innovation processes and digital transformation processes in the organizations required for this. This team undertook a three-step process of mentoring.

- Diagnosing innovation needs and technological needs in the organization together with managers and employees in the organization to identify the current situation in accordance with the goals of the organization. This process is done in direct interaction with the customer.

- Questioning and checking the state of the organization in relation to the same index for innovation potential.

- Examining action options and providing a future picture to create innovation. Strengthening capabilities that already exist, completing existing gaps, developing in missing places, and recommending directions for action (Innovation Boost).

This team of experts, which was based on the indicators of the index for innovation and carried out dozens of different interventions during its years of activity, formulated a work methodology and no less than that, a systemic picture of endogenous innovation in the IT sector, which is in the stages of adapting and

dealing with extraordinary technological innovation, despite its traditional concepts that require the institutionalization of processes Work over time and without new changes, of the corporate IT sector.

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[Appendix 1]:

The variety of questions that each expert was asked regarding each organizational activity that indicates intra-organizational innovation found in the various indices of the global consulting companies indicated above

- Does the organization have a regular process of analyzing employee performance in accordance with customer requirements and setting performance indicators (KPI's)?
- Are managers in the organization aware of and supporting innovative work processes in accordance with the changing demands of customers?
- Do managers in the organization support and train employees for innovation?
- Are managers willing to be tolerant of employee mistakes that occur in innovation processes?
- Do the organization's strategy goals include reference to the analysis of innovative trends in the complex and frequently changing environment?

- Is there a budgetary reference to expressions of innovation?
- Does the organization adopt organizational values of innovation, such as: establishing the values of innovation in the organization, support of managers, budget, and commitment of employees to the values of innovation?
- Is there a regular process of thinking and acting to adapt and renew products / services according to customer requirements?
- Does the organization have a process of internal and external publication and publicity of the innovation values and innovation methods in the organization?
- Does the organization make regular and informed use of DATA as a basis for decisions in the field of organizational innovation?
- Are the tools and working methods for developing innovation in the organization accessible to employees?