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Product Innovation Performance in Organization

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Abstract

The following text is an analysis of the efficiency of product innovation in an organization. This article has tried to point out the different dimensions of product innovation and also examine this subject in the different situations of an organization, using examples from researches done throughout the world.

Keywords: Product innovation, Performance, Organization

1. Introduction

Having new production environments and the nature of consumers in mind, it is concluded that in today's competitive world, old methods are not efficient anymore. The requirement for surviving the stage of competition is using new methods and product innovation is one of these new techniques being considered globally [1, 5]. A sound innovation management plan is not enough — it must translate into viable products and positive business results. To improve returns on product innovation investments, organizations need to effectively govern and measure their new product development processes from end to end, from strategic road mapping to idea development to innovation execution. Accolade product innovation solutions help organizations to structure, automate and measure product innovation, ensuring that the right new products get to market cost-effectively and on time. Replacing inefficient paper-based processes, Accolade automates Stage-Gate®, PACE®, DoD 5000 modeling, DFSS, and other new product development methodologies with a centralized best-practice system that supports process execution from the time a product is conceived as an idea until it is retired from the marketplace [2, 6]. Further extend the value of Accolade to your business by using the system's powerful process to govern other key business processes or project portfolios, such as sustainability, Six Sigma, capital development, mergers and acquisitions, and IT projects.

2. Product innovation performance in organization

Successful product information and effective use is composed of new knowledge. So this definition induces two important factors: being new and applicable [3, 7, 13].

Product innovation is a process that includes: technical design, research and development, production, management and commercial activities associated with marketing a new product. Alegre and colleagues (2006) have imagined the product innovation performance as a structure with two different dimensions that are:

- 1- Effectiveness of innovation
- 2- Innovation performance

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3- A summary of research conducted in the field of product innovation performance

Effectiveness innovation reflects the degree of innovation.

On the other hand, efficiency of innovations represents the attempt to achieve the success.

These two aspects of product innovation performance, with previous literature (Will Wright and Clark, 1992, Barkzak, 1995, Griffin, 1997, or. B. C. D, 1997, and Wall & Ola, 2003) are consistent. Effectiveness and efficiency of product innovation have been discussed extensively on research innovation.

Organization of Economic Cooperation Development, to review the economic objectives of innovation, product innovation has elaborately pointed out performance measurement criteria into detailed instruction (Organization for Economic Cooperation Development, 1997) using that can evaluate the effectiveness of innovation. After many studies about the innovation have been done, these measurement criteria have also been used recently by Alegre and colleagues (2006).

As an example of applying this approach to research can point to the research by the Spanish Institute of Statistics conducted on technological innovation (A. N. E 2004).

Product innovation performance is the second factor that is used to measure product performance. Product performance must be distinguished by the time and cost is accepted by most researchers (Ovill Wright and Klark 1992, Organization for Economic Cooperation Development 1997, Griffin 1997, Jon and Doll 2001, Wall & Ola 2003).

The consensus is among researchers that the product innovation should be determined by the cost and the time of the project (Ovill Wright and Klark 1992). Measuring the cost and time is both objectively (Pvsttrl & hoops 1999, Griffin 1993, 1994 Pysano 1994) and subjectively (Griffin & Pitch 1993, Jon and Doll 2001, Mac Oiley & Chakravaryy 2002, Wall & Ola 2003). Objective measurement of the cost and time can be part of a project to evaluate specific innovations while subjective measurement can be of an overall mental survey about innovation [14, 15].

One of the important researches that exists in the literature on innovation, performance, innovation, is the innovation from the perspective of project success factors. The successes and failures in Chemical industries in Great Britain were examined. The result was that success is a direct relationship with performance. After these pioneering studies, other researchers confirmed the importance of speed in innovation projects will succeed [4, 8, 9].

Another innovation of the product development process as a systematic process of problem solving is considered. This process emphasizes the importance of the development process and defines productivity and speed the criteria for performance evaluation. Alongside the time and cost or the performance of innovation process, many studies have tried to be a subjective assessment of overall project performance including innovation in their work. Ankvna and Caldol considered the external communications, product development teams to evaluate their subjective judgments of overall performance and innovation in their work. Barkzak, in the action researches conducted in the telecommunications industry, to measure the overall performance of the items under the consent of the Company's product development efforts. Chystta and colleagues presented a kind of attitude assessment tools to measure the performance of their innovations [10, 11, 12].

As noted, the recent studies on product innovation performance and its measurement have been done by Alegre and his colleagues (2006). In their studies with differentiated product innovation performance they tried to evaluate the effectiveness and efficiency of product innovation to product innovation innovations by posing questions. The questionnaire that they used in their study is as follow:

Questions to measure the effectiveness of the product

- 1 - Replacement the products that are no longer the primary place in the market.
- 2 - Development of new products or product areas within the company's main products
- 3 - Development of new products or product areas outside the company's main products
- 4 - Design and manufacture of environmentally friendly products
- 5 - The improvement of market share
- 6 - Opening new markets abroad
- 7 - Creating new domestic target groups

Questions to measure the efficiency of product innovation

- 8 - The average time spent on projects for product innovation
- 9 - Average hours of performing Innovation Projects
- 10 - The average cost of innovation projects
- 11 – The degree of public satisfaction with the performance of innovation projects

3. Conclusion

Product innovation is considered as a new method in industrial engineering, therefore scientists try to examine the results of it and help in its future evolution by exhaustive research. It is anticipated that more of the positive outcomes and effects of product innovation will be witnessed in the future.

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