
Role Of Innovation In Quality Management

01 Introduction

The concept of quality management has existed for many years and has evolved with time while changing general management practices and businesses dramatically. Companies have learnt that maintaining quality can help them have a competitive edge and are therefore investing and engaging actively in quality practices with newfound zeal and effort.

New ideas and ways help businesses improve the products, processes, increase efficiency, productivity and boost profitability. Over the previous years, innovation has been the key to set industry standards and to be a market leader[footnoteRef:1]. The need for innovation came in an environment where there was saturated monotony amongst product offerings in the market accompanied with severe and intermittent economic fluctuations[footnoteRef:2]. Innovation was therefore seen as an asset that could be materialized in a profitable way. [1: Gatignon, Hubert, Michael L. Tushman, Wendy Smith, and Philip Anderson. 'A Structural Approach to Assessing Innovation: Construct Development of Innovation Locus, Type, and Characteristics.' *Management Science* 48, no. 9 (2002): 1103-122. doi:10.1287/mnsc.48.9.1103.174.] [2: Chakravorti, Bhaskar. 'The New Rules for Bringing Innovations to Market.' *Harvard Business Review*. August 01, 2014. Accessed March 28, 2019. <https://hbr.org/2004/03/the-new-rules-for-bringing-innovations-to-market>.]

This blend of operational integrity and quality maintenance coupled with breakthrough innovation was established as the new equation to obtain a higher chunk of market share. Several studies have been conducted to assess the role of innovation in quality management. While most of these studies indicate that innovation and quality management are inter-related, there is no clear evidence siting the nature of this relationship[footnoteRef:3]. Through this paper, we intend to examine the same with accompanying objectives. [3: Honarpour, Amir, Ahmad Jusoh, and Khalil Md Nor. 'Knowledge Management, Total Quality Management and Innovation: A New Look.' *Journal of Technology Management & Innovation*. Accessed March 28, 2019. <http://www.jotmi.org/index.php/GT/article/view/art263>.]

02 Literature Review

Methodology followed for literature review: a handful of articles were selected from two databases namely "JSTOR" and "Elsevier" from which the following keywords were emphasized upon. At the end, it is discussed what could be drawn from the work already done on this domain.

Keywords: Quality Management Practices, Product Innovation, Innovation Management, Total Quality, Organizational Performance.

In the past decades, academics have progressed in terms of their research on innovation and management practices[footnoteRef:4]. Especially with the recent increasing market competition, organizations are continuously improving and refining their techniques such that it improves their products and processes[footnoteRef:5]. Research has hinted that companies have been

adopting strategies of innovation while expecting improved operational and financial performance[footnoteRef:6]. [4: Henderson, Rebecca M., and Kim B. Clark. 'Architectural Innovation: The Reconfiguration of Existing Product Technologies and the Failure of Established Firms.' *Administrative Science Quarterly*35, no. 1 (1990): 9. doi:10.2307/2393549.] [5: Schniederjans, Dara, and Marc Schniederjans. 'Quality Management and Innovation: New Insights on a Structural Contingency Framework.' *International Journal of Quality Innovation*1, no. 1 (2015). doi:10.1186/s40887-015-0004-8.] [6: Zakuan, N.m., S.m. Yusof, and T. Laosirihongthong. 'Reflective Review of Relationship between Total Quality Management and Organizational Performance.' 2008 4th IEEE International Conference on Management of Innovation and Technology, 2008. doi:10.1109/icmit.2008.4654406.]

Ever since, product development has been treated as a unit of innovation which encompasses the larger picture which takes into account other important factors such as refinement in product manufacture, managing techniques, employees[footnoteRef:7], etc. Innovation for these purposes has been classified into three sub sections which are, product innovation – which deals majorly with the technical and engineerable aspect of the offering, process innovation – which is connected to the technological progress, innovation and abilities of a firm. This is further categorized into radical and incremental innovation which essentially refer to adoption of new processes, altering existing processes by bettering them and inducing demand. [7: Kossek, Ellen Ernst. 'The Acceptance Of Human Resource Innovation By Multiple Constituencies.' *Personnel Psychology*42, no. 2 (1989): 263-81.]

Administrative innovation – which, as per literature is in contrast to technological innovation and refers to addressing the internal needs such as feedback systems, sustenance operations, coordination efficiency and communication structure in an organization[footnoteRef:8]. [8: Schniederjans, Dara, and Marc Schniederjans. 'Quality Management and Innovation: New Insights on a Structural Contingency Framework.' *International Journal of Quality Innovation*1, no. 1 (2015). doi:10.1186/s40887-015-0004-8.]

Quality management processes are a very broad, accommodating and enclosing topic, much like innovation[footnoteRef:9]. The larger goals of both that involves improving a factor seem to co-exist too. Literature has proven that quality management process, having been divided into social quality management and technical quality management is enabled through cross-functional cooperation from research and development activities of a company[footnoteRef:10]. [9: Powell, Thomas C. 'Total Quality Management as Competitive Advantage: A Review and Empirical Study.' *Strategic Management Journal*16, no. 1 (1995): 15-37. doi:10.1002/smj.4250160105.] [10: Zeng, Jing, Wenqing Zhang, Yoshiki Matsui, and Xiande Zhao. 'The Impact of Organizational Context on Hard and Soft Quality Management and Innovation Performance.' *International Journal of Production Economics*185 (2017): 240-51. doi:10.1016/j.ijpe.2016.12.031.]

Conclusion of review: Research and literature on this field and on the question of the relation between quality management and innovation has been confirmed by a few and denied by a few. However, the larger discourse agrees through a critical perspective that intra and interorganizational development is better facilitated through involving and implementing new practices, structures, etc which could be treated as an equally valid argument for innovation.

03 Objectives

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1. To see if there is a relationship between innovation and quality management
 2. To understand the factors that affect this relationship
 3. To understand the effect of innovation on the organization's performance

04 Project Progress

There are two recognized methods to complete this project the first one relying majorly on secondary data obtained from existing case studies and/or articles on the website from which one can gather the underlying relation between innovation and quality management. These data, as obvious would also give clues on the factors affecting the relationship, if excavated. Based on the previous findings, we can then make an approximate assumption of what its organizational effects could be.

The second method, although a little complex and difficult involves primary modes of data collection where we could look at a few companies' financial history over the past few decades and graph their investment on research and development as a proxy for investment in innovation. This can then be accompanied with secondary data such as journals, blogs, articles, etc from which we expect to gain information on continuous information on quality of that company's products and processes. However, in this method, qualitative assumptions (based on literature and theories) will be made as to what the factors are and what its effects could be.

General conclusions: Under both circumstances, there are two hypotheses. There is either a positive or a negative relation between innovation and quality management. If we follow the first method, this relation shall be established with the aid of purely qualitative data whereas the second method shall involve an underlying quantitative background.

However, so far, as per the considerate volumes of literature reviewed, we remain confident that there would exist, a positive relation between innovation and quality management which would be connected to HR and Strategy practices and have an effect on the firm's profits to begin with reaching down to the accumulated brand image and goodwill.