



CONCEPTUAL NEXUS BETWEEN INNOVATION, COMPETITIVENESS AND PROJECT MANAGEMENT

Tamilselvan Mahalingam* Dr.S.K.Nagarajan Ahsan Chaudhri*****

**Ph.D.Research Scholar, Research and Development Centre, Bharathiar University, Coimbatore, India.*

***Assistant Professor in Management, Tamilnadu Police Academy, Chennai.*

****Business Faculty, Higher Colleges of Technology, Dubai, UAE.*

Abstract

Innovation is indispensable for any organization to stay competitive in the dynamic environment. Competitors are thriving to achieve excellence through anticipation and innovation congruently. In this paper, we tried to draw the attention of academics and practitioners to consider the application of project management tools and techniques to encapsulate the dynamics of project cost and time within the context of innovation. There are several challenges and opportunities exists in the application of project management practices to achieve organizational strategic goals that leads to innovation in stipulated cost and time. As a matter of fact traditional project management practices needs to be reevaluated and contemporary practices should emerge to extend the current knowledge base in the domain of innovation project management.

Keywords: *Project Management, Innovation, Portfolio, Competitiveness, Strategy.*

Context

The survival and competitiveness of an organization can be derived from focusing on multiple areas not limited to the product and service design, flexibility, cost, quality, differentiation, productivity, labor, to name few. World class companies always strive to differentiate their product and services through innovation to command premium pricing and market share. Organizations that are realizing the need to be competitive and innovative, manages their portfolio successfully by initiating projects. Once the project has been authorized by the senior management, it can be managed with the application of knowledge, skills, tools and techniques in project activities to meet project requirements (Project Management Institute, 2013).

Introduction

For the purpose of this research, a difference is made between two types of project, business and innovation. Business projects are performed to deliver the products or services to the specific customers both internal and external. Business project example includes construction and delivery of a villa for the client who is an external customer. An example of internal customer related business project would be the development of purchase order system for the accounting department by the IT department.

Competitiveness is the ability of an organization to meet the needs and wants of the target market in comparison with their competitors (Stevenson, 2012) and rightfully innovation plays a leading role.

Innovation is something original that is more effective and as a result, new, that breaks into the market or society (Frankelius, 2009). Organizations are usually designed to carry out its regular operations that are routine, day to day activities, coordinated and supervised that produces standard products and services. To innovate, organizations need to create unique product or services.

Project is a temporary endeavor undertaken to create unique product, service or result (Project Management Institute, 2013) and often used as a tool to achieve strategic objectives of an organization. Innovation projects are focused on creating something new that are disruptive in nature and adds significant business value that differentiates the performing organization amongst the other competitors. An example of innovation project can be, a bank developing a biometric system to access online banking on the smart phone. Successful organization not only strive to innovate but also focuses on Lean Innovation, an approach that reduces the total lead-time to develop a new products or services by achieving excellence in reducing the time, cost and resources.

Project Management has the necessary tools and techniques to help the organization innovate with in the triple constraint of time, cost and scope. These triple constraints are competing demands as well, as such, increase in scope for example, leads to increase in time or cost and vice versa.

There is an underlying conflict between traditional project management approach and innovation management. The traditional project management is not flexible in a sense that senior management usually authorize a project with the fixed



budget and schedule deadline. However, innovation related projects does rarely follows the pre-defined scope, while the scope changes, due to its competing demands, the budget and schedule. While the scope gets evolved over the period time, naturally the cost and schedule needs to be updated, but in the traditional approach, management doesn't want to make changes to project baselines (scope, cost and schedule). This constitutes a need to move away from traditional project management approaches because conventional style of managing project does choke innovation.

Review of Literature

Lerch and Spieth (2013), argued that doing the right innovation projects is critical to firm's success; therefore, academics and practitioners are striving for optimizing innovation project portfolio management. Using 29 in-depth interviews in 12 companies, the authors have developed a general model that drives IPPM which influences both project and firm performance.

Kapsali (2011), argued that the conventional project practices lead to the failure of innovation deployment projects, it requires systems thinking in project management to become successful. This paper suggests that project management requires flexibility to manage innovativeness, complexity and uncertainty in innovation projects.

Brook and Pagnanelli (2013), studied the integration of sustainability into innovation project management from a strategic perspective. The paper states that the project management in relation to innovation has increasingly gained the attention of practitioners and academics during the last decade. They have developed a 5-step framework for integrating innovation project management in the field of product development.

Buys and Stander (2010) argued that in many organizations, a chasm exists between the development of strategy and its successful implementation using project management. Failure to cross this chasm may ultimately result in strategy failure and the loss of competitive advantage, profits, and employment.

Methodology

Content analysis in conjunction with published journal articles has been used in this research because it is a flexible method that can be applied to various problems in project management studies (White & Marsh, 2006). It is a systematic and objective manner to develop conceptual model (Krippendorff, 2004). Theoretical understanding can be obtained through this approach either inductively or deductively. This methodology is suitable for this study because it allows replication of knowledge, new insights as well as representation of facts through face to face interviews. For the purpose of this research 20 project managers were interviewed and after data collection interview scripts were transcribed. Then the interview transcript is re-read several times to list emerging themes. The constructs that emerge from this process is identified. Initial codes are generated from the given data.

The words such as "innovation", "commitment", "management approach" and "stakeholder" are extracted. As the amount of data is really huge, mind mapping was used to sort out the data into significant codes. Codes that are not relevant were eliminated. Codes that are duplicated (different names but same meanings) were also discarded. After the refining process, 5 main themes were identified which are "management practices", "support from senior management", "project portfolio management", "organizational enablers" and "project stakeholder management".

The table below lists five main themes related to the development of conceptual model.

Table 1: Themes and participants response

No.	Themes	Participants Response (Positive and Negative)
1.	Management Practices	<ul style="list-style-type: none"> a. Lack of delegation of authority b. Lack of freedom c. Complex reporting relationship d. Conflicting requirements
2.	Support from Senior Management	<ul style="list-style-type: none"> a. Senior management involvement in project is crucial. b. Management commitment to resource allocation. c. Management understanding and the approval for revised budget and schedule.
3.	Project Portfolio Management	<ul style="list-style-type: none"> a. Effective project selection methods. b. Project prioritization issues. c. Aligning organization strategy with innovation and project management.



4.	Organizational Enablers	<ul style="list-style-type: none"> a. IT infrastructure b. Existing culture and style c. Communication methods d. Governance
5.	Project Stakeholder Management	<ul style="list-style-type: none"> a. Critical stakeholder engagement is at the undesirable level. b. Stakeholders are not properly managed. c. Stakeholders should be identified as early as possible.

Discussion

There are several factors in project management that may influence the effectiveness of innovation project execution. Through a thorough investigation and content analysis the following themes of discussion emerged during the interviews.

1. Management Practices

The effectiveness of good management practices, plays a key role in innovation related projects. Management practices such as reporting relationship, delegation of authority and responsibilities, autonomy, communication, team structure, governance, to name few, are vital for project success. Management needs to be flexible and allow agility on their approach to provide sufficient freedom and support to project managers.

2. Support from Senior Management

Senior Management should not only show support morally but also provide adequate financial and resource support to successfully complete innovation projects. Senior managers should take the role of project champions and help facilitate successful project execution and clear the hurdles faced by project management team. With the support of senior managers, project management team can achieve the innovation project goals and thus add business value to the organization.

3. Project Portfolio Management

The importance of maximizing outcomes from innovation project portfolios is escalating (Killen et al, 2008). Many projects do not realize the business value as it does reach the launch or product delivery stage. New product success rate are usually around 35% to 60% (Griffin, 1997) this is often due to the organization's strategy misalignment with innovation project portfolio. There is a need for innovation project portfolio management that will oversee and govern all the innovation related projects in an organization.

4. Organizational Enablers

An effective innovation and project management can't synergize unless the organization is conducive to perform innovation projects. The organizational factors that influence innovation project success are called organization enablers. There are several organizational enablers that affects the project management such as but not limited to organization structure, culture, technological adoption, human resources practices, and communication methods. This field of study is known as Organizational Project Management (OPM). OPM is a strategy execution framework that uses projects and other organizational enabling practices to delivery organizational strategy in the most effective and efficient manner.

5. Project Stakeholder Engagement

Project stakeholder is any individual or organization who are affected by the project or its product. While performing innovation projects, project managers, should consistently and proactively identify stakeholders as early as possible in the project and develop stakeholder management plan to effective manage and control stakeholder engagement throughout the project lifecycle. Undesirable critical stakeholder engagement may jeopardize the overall project objectives.

Conceptual Model Development

Successful innovation management strategy execution can turn the organization from good to great. At the same time, innovation that fails in meeting its objective during execution and delivery can be destructive to the organization no matter how good is the innovation by itself because organization not only try to innovate but also try to reduce the time-to-market as well cost effective.

Project Management plays a key role in execution of the innovation strategy. Project Management standards published by leading membership based organization such as PMI has a clear framework that help assist the management team to executive their innovation plan. One such example is setting up of the Project-based organization. Project-based organizations (PBOs) refer to various forms that create temporary systems for carrying out their work (Project Management



Institute, 2013). PBOs adopts different organizations structure to management its projects such as function, matrix, or projectized. Organizational strategy, where innovation is usually a part of it, should give guidance to project management – because the existence of the project is to support organizational strategies.

Keegan and Turner (2002) pointed that “the space which ‘innovation’ and ‘projects’ comes togetheris—it seems from our study—still dominated by ideas on how tocorrectly manage projects, rather than how to effectively manageinnovation.”

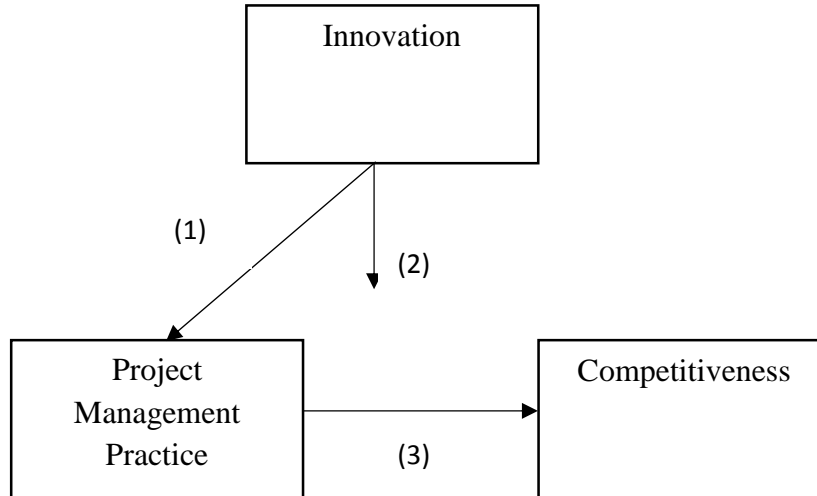


Figure 1. Influence of Innovation and Project Management Practice on the organizations competitiveness.

Traditional view of innovation and competitiveness is that of direct correlation without the consideration of the effectiveness of (project) management approach (Figure 1, arrow 2), whereas this paper focuses on the importance of applying project management practices (Figure 1, arrow 1 and arrow 3) on innovation projects that leads to increased competitiveness not only the product innovation but also on finishing the project with optimum usage of resources.

Findings of the Study

The finding of the study is multi-fold. Firstly, the notion of innovation leads to competitiveness is true however, the medium in which the innovation translate to end products are under heavy scrutiny and one of the common theme evolved is the application of project management as means to achieve strategic goals.

Secondly, even though project management plays a significant role, the management approach plays a key role. Traditional project management approach is not suitable for innovation project, contemporary project management practices such as agile project management is highly adaptable and should be used.

Finally, organization should not only enhance the project management methodologies to improve the success of innovation project, they should also focus on other factors such as management approach, senior management support, organizational enablers, portfolio and stakeholder management to bring about the system wide change that are conducive for successful execution of innovation projects.

Conclusion and Suggestions

A comprehensive review of literature shows that effective integration of project management along with other organizational enablers will lead to successful implementation and execution of innovation projects. Innovation is indispensable to any business, it is not a question of why, but how. Contemporary project management has the required tools and techniques that will help manage innovation project successfully. Innovation leads to competitiveness, but the cost of innovation should not overweigh the benefit.

Organization should develop a framework that should not only focus on the effective application project management to realize innovation project objectives but should also focus other factors. Senior management should realize that there should be enough flexibility in this framework that can adapt to the ever changing business landscape and give the freedom and autonomy to innovation project managers.



References

1. Anne Keegan, J.Rodney Turner, The Management of Innovation in Project-Based Firms, Long Range Planning, Volume 35, Issue 4, August 2002, Pages 367-388, ISSN 0024-6301, [http://dx.doi.org/10.1016/S0024-6301\(02\)00069-9](http://dx.doi.org/10.1016/S0024-6301(02)00069-9).
2. Blindenbach-Driessen, F., & van den Ende, J. (2010). Innovation Management Practices Compared: The Example of Project-Based Firms. *Journal Of Product Innovation Management*, 27(5), 705-724. doi:10.1111/j.1540-5885.2010.00746.x.
3. Buys, A.J and Stander, M.J. (2010), "Linking projects to business strategy through project portfolio Management", *South African Journal of Industrial Engineering* May 2010 Vol 21(1): 59-68.
4. Frankelius, P. (2009), Questioning two myths in innovation literature, *Journal of High Technology Management Research*, Vol. 20, No. 1, pp. 40–51.
5. Griffin, A. (1997), PDMA research on new product development practices: updating trends and benchmarking best practices, *Journal of Product Innovation Management*, Vol. 14 No. 6, pp. 429-58.
6. Jacques W. Brook, Fabrizio Paganelli, Integrating sustainability into innovation project portfolio management – A strategic perspective, *Journal of Engineering and Technology Management*, Volume 34, November 2013, Pages 46-62.
7. Killen, C. P., Hunt, R. A., & Kleinschmidt, E. J. (2008). Project portfolio management for product innovation. *The International Journal of Quality & Reliability Management*, 25(1), 24-38.
8. Krippendorff, K. (2004). Content analysis: An introduction to its methodology (2nd ed.). *Thousand Oaks, CA: Sage* .
9. Lerch, M.; Spieth, P., "Innovation Project Portfolio Management: A Qualitative Analysis," in *Engineering Management, IEEE Transactions on* , vol.60, no.1, pp.18-29, Feb. 2013 doi: 10.1109/TEM.2012.2201723
10. Maria Kapsali, Systems thinking in innovation project management: A match that works, *International Journal of Project Management*, Volume 29, Issue 4, May 2011, Pages 396-407, ISSN 0263-7863, [.http://dx.doi.org/10.1016/j.ijproman.2011.01.003](http://dx.doi.org/10.1016/j.ijproman.2011.01.003).(www.sciencedirect.com/science/article/pii/S0263786311000044)
11. Project Management Institute. (2013). A guide to the project management body of knowledge (PMBOK guide). Newtown Square, Pa: Project Management..Institute.(<http://www.sciencedirect.com/science/article/pii/S0024630102000699>).
12. Stevenson, W. J. (2012). *Operations management*. Boston: McGraw-Hill Irwin.
13. White, M. D., & Marsh, E. E. (2006). Content Analysis: A Flexible Methodology. *Library Trends* , 22-45.