An Exploration of Differences between Professional Advancement of Project Managers based on their Gender in Operations-Driven and Project-Driven Organizations

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Abstract

This paper discusses results of an exploratory study conducted on project and operations managers. The study aims to investigate the difference between the professional advancement of project and operations managers based on their gender. It also attempts to discover the preferred ways of career progression in project driven and operations driven (project dependent) organizations. The key objective of this work is to formulate refined research questions for the research community based on the results of our research work.

Keywords

Career; Gender; Project managers; Operations managers; Project-driven organizations; Operations-driven organizations.

1. Introduction

It is true that when men and women perform the similar role they have typical style of dealing with the problems. Research into different management styles of men and women has attracted attention of researchers investigating gender based career patterns in project-driven or project-based organizations. There are several interesting questions that can be answered. Do men differ from women in personality traits and therefore are they more successful project managers than their women counterparts? Are women better in communication and problem solving skills and therefore better as project managers than their men counterparts? Or their success is purely merit and ability based and gender has nothing to do with it. The present paper is an attempt to answer a few such questions. The forthcoming section presents literature review on the research theme followed by objectives of the study based upon the gaps identified in literature. Research questions have been identified and hypotheses have been proposed. The next section discusses research methodology followed by a discussion on the results obtained. In the last sections, conclusion and future research directions have been discussed.

Section 2: Literature Review

This section presents the deliberations from the literature under following sub headings:

2.1 Features of project driven and operations driven organizations. Specific skill sets requirements for performance success in project-driven organizations.

"A project consists of a temporary endeavor undertaken to create a unique product, service or result" (Guide, PMBOK 2004). Project-driven organizations are associated with the increasing product and operational complexities of contemporary business situations. Researchers have suggested that project-driven organization is the most natural form of organizing complex products and systems especially when there are several partner organizations associated

with supply chain of the business (Hobday, 2000; Gann and Salter,1998). As compared to other forms of organization like matrix and functions etc., project-driven organizations are those organizations where the entire production, organization, innovation and competition is based upon the project itself (Hobday, 2000). Archibald (2003) identifies two categories of project-driven organizations. One is project-driven and other is operations-driven organizations. Project- driven organizations are those where the key businesses are made up of projects. Such organizations work on project basis and bid for getting projects. On the other hand, operations-driven organizations are those where the key business is providing goods and services not projects. Such organizations sponsor their own project internally. These do not offer or bid for projects but use projects to support their mainstream business operations.

Project managers in project driven and operations-driven organizations have a different standing in the organization. They have exclusive control over organizational processes and resources (Hobday 2000). They play a role as a connector between projects and organisation and across projects (Eskerod and Skriver 2007; Loo 2002). This role is entirely different from the role being played by a managerial executive in a functional or any other form of organization. A functional (operations-driven) organisation is more hierarchical, where the manager of the function reports to a senior manager who further reports to an executive manager in a chain of command (Bartol, Tein, Matthews, and Sharma 2011). Due to the absence of chain of command in project-driven organizations, there are weak formal links found in such organizations (Wiewiora et al. 2014). It is an established fact that project-driven organizations are different from traditional/ functional organizations on several grounds like time perspective, processes and people orientation and geographical spread. Project-driven organizations are time specific and it decides their existence. On the other hand, functional (operations-driven) organizations are survival orientated but time for them is money. Project-driven organizations have more finite existence as compared to other form of organization. As far as processes and people are concerned, these are more flexible and come from multiple locations in the project organizations. Compared to this, people and processes are moreover stable, continuous and positioned in other forms of organization (operations-driven). In project-driven organizations, there are co-located and geographically dispersed projects while in functional organizations, there are co-located functions.

Researchers also identify some other key processes that are handled differently in project-driven organizations. Transfer of knowledge is one such important process in project-driven organizations. Knowledge transfer at the project level takes place as a social communication between project stakeholders. And this happens through different explicit information channels such as project documents etc. (Arenius, Artto, Lahti, and Meklin 2003). In a project environment, communication provides critical links among people, ideas and information that are necessary for project success (Guide, PMBOK 2004). Since project organizations are time driven and geographically spread, social communication becomes a real challenge in such organizations (Arenius et al. 2003). This also poses challenge in the process of knowledge transfer. This way communication becomes critical because lessons learnt in one project can be a key source of knowledge for forthcoming stages or a new project (Kotnour 1999). Thus, one of the critical attribute for a project manager is not only to produce and transfer the lessons learned, but also play an important role in inter-project knowledge transfer.

Transformational leadership is yet another critical process in a project-driven organization identified by past researchers. Prabhakar (2005), Turner and Muller (2006) discuss these issues in their work. Prabhakar (2005) emphasizes that greater agility in leadership styles is the key to success in project manager's career. Dulewicz and Higgs (2003) talk about emotional competencies that are related with conflict management, teamwork, political skills, negotiation skills, technical skills, and problem solving, to name a few.

2.2 Concept of career, glass ceiling and review of gender based studies on career advancement

The term career suggests the notion of sequential employment related experiences through time and across space (Baruch et el. 2011). The term glass ceiling in career is found to be associated strongly with gender issues. Glass ceiling is traditionally defined as "the unseen, yet unbreachable barrier that keeps minorities and women from rising to the upper rungs of the corporate ladder, regardless of their qualifications or achievements" (Federal Glass Ceiling Commission 1995). There is an extensive body of literature discussing various issues and current status of glass ceiling. Davidson & Cooper (1992) discuss that equal opportunities in career for men and women is no longer a marginal issue in U.K. but a mainstream economic and a social issue due to implementation of several related legislations. This study also reports that women in UK are still far behind shattering the glass ceiling for them despite all such changes. In another study by Powell and Butterfield (1994) carried on US economy, results reveal that glass ceiling effect on women's career cannot be traced explicitly. Rather, there are many other job- irrelevant

gender factors that work for the advantage of women. Another study by Arulampalam et al. (2007) on the gender pay gap across the wage distribution in EU countries reports that the said gap widened at the top of the wage distribution. Thus, confirming the glass ceiling effect.

Several authors have empirically proven the fact that women make better managers. Bass and Avolio (1994) discuss that the trends in U.S. corporations witness the presence of highly involved work teams, joint decision making and empowerment. Due to these trends, there is a naturally tendency of successful career opportunities for women portraying similar leadership skills. Thus, there is an attempt to break the glass ceiling there. Thus to conclude on this, it can be said that there is vast literature supporting the fact that the concept of glass ceiling still exists although there have been attempts to offer gender free career opportunities in both European and US economy.

2.3 Some reflections on career paths in project-driven organizations

There are several studies highlighting the peculiarities of career paths in project-driven organizations and differentiating them with functional organizations. Studies reflect that career paths in project-driven organizations are more self-driven as compared to functional organizations that are more driven by organizational settings (El Sabaa 2001). Citing career paths in project organization with special reference to film industry, Candace Jones discusses that careers move across firms rather than moving within a firm in such organizations. He further states that careers have no boundaries in project organizations. Arthur (1994) also discusses boundary-less career with reference to project driven organizations where there is a movement across the boundaries of different organizations, validation from the market rather than the employer and cross organizational networks of information. Another study by Katz and Tushman (1981) investigates the career paths of gatekeepers and supervisors by comparing directly the performance of project groups with and without gatekeepers. The findings of the study reveal that almost all gate-keeping project leaders had been promoted up the managerial ladder; in contrast, one half of the non-gatekeeping project leaders had ascended the technical ladder. This implies that higher managerial levels demand strong interpersonal as well as technical skills.

2.4 Review of gender based studies in project-driven organizations

Gender issues have attracted the attention of management researchers since long. Simone de Beauvoir's De Beauvoir's (2014) work is the seminal one in this direction. Gender system has been recognized as one of the power systems of society (Scott, 1986) since last decade. Researchers have also discussed gender issues in project organizations. Lindgren and Packendorff (2006) focus on how gender (i.e. culturally constructed notions on femininity and masculinity) is constructed in project work, and the consequences of this for human beings (i.e. both men and women).

3. Research Methodology

This paper is drawn from a larger study (Debourse et al., 2011a; 2011b) investigating the career paths of project managers, hence the sample size for results relevant to gender may vary for different questions. The following research objectives are proposed based on our understanding of these issues from our discussions with CEOs and literature review findings discussed in the previous section:

1: To examine the preferred ways of promotions of females in project driven organizations as compared to females in operations driven organizations.

2: To gauge the similarities and the differences between the career paths of male and female project managers.

An online questionnaire (in English and in French), consisting of 77 questions was used as part of the larger survey, the results presented in the following section relate only to those specific questions which address the issue of gender. We received a total of 557 responses from 20 countries: 445 complete responses to the English version of the questionnaire and 112 responses to the French version of the questionnaire. Respondents are drawn from the list of PMI (Project Management Institute) membership. Since email addresses were not provided to us, we had to post the questionnaires to our potential respondents incurring very high mailing expenses, heavy administrative work and delays. Our team posted 16,178 invites to participate and only 445 filled responses were received, a response rate of 2.75% (of the 445 responses, 229 were from project-driven companies, 215 from operations-driven companies and 1 non-response); likewise for French language: 1,625 invites were posted and only 112 responded, a response rate of around 7% (out of the 112 responses, 60 were from project-driven companies, 40 from operations-driven companies with 12 non-response). For this paper we have chosen a set of 365 English version of useable questionnaires which help us understand and answer the gender-based research objectives.

Quantitative data processing of the survey data was completed using SAS software (Statistical Analysis System). SAS integrates all the mathematical and statistical functions, much like similar software. However, when it comes to data extraction, SAS is quite efficient; it also allows comparison of data from heterogeneous files. Following questionnaire items were used to make the distinction between project-driven and operations-driven companies:
Q2. What type of organization do you work for?
Q3. What is the name of your specific part (department) of the organization?
Q72. What is the name of your company?

In many cases, the distinction was straight forward; with construction, IT, entertainment etc can be classified as project-driven companies. In some case the distinction was more complex, the rule adopted is as follows:

- Respondents were considered being from project-driven companies, if the major subsidiaries or departments they were evidently project-driven, even if the parent company was operations-driven.
- Respondents have been considered being from operations-driven organizations if the project management department is part of operations-driven company, for example, the project department of an international mail order company is a operations-driven company.

Many distinctions were obvious, but in more complicated cases, a decision of the type of company was made from its website.

4. Results

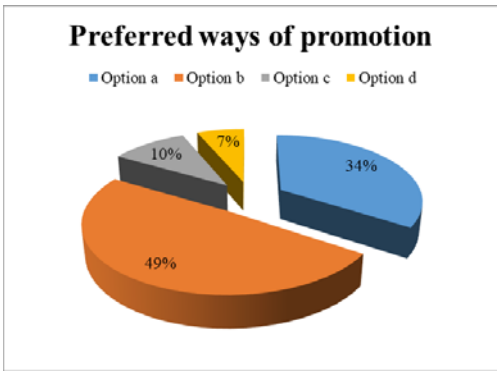
4.1 Professional Advancement and the Ways of Promotion

This part of the analysis focuses on the opinion of the respondents as to their progression perspective and the path to take for reaching higher level positions. The question asked was about the statement that best expresses their feelings about their professional advancement. The options given were as follows:
I would accept a lateral moves into a functional area of responsibility if it would enhance my ability to move into more senior executive responsibilities.

a. I would prefer to continue to take on broader responsibilities within program/project management, with the expectation that these will lead to senior executive positions for me.
b. I would prefer to continue as program/project manager for the remainder of my career.
c. None of the above.

Summary of the response to this question

	Number of Respondents	% of Respondents
Option a: Accept lateral moves into a functional area as it would enhance my ability to move into more senior executive responsibilities.	**124**	**34.3**
Option b: Continue to take on broader responsibilities within program/project management, with the expectation that these will lead to senior executive positions.	**178**	**49.2**
Option c: Prefer to continue as program/project manager for the remainder of my career.	**37**	**10.2**
Option d: None of the above/others.	**23**	**6.3**
Total	**362**	**100**

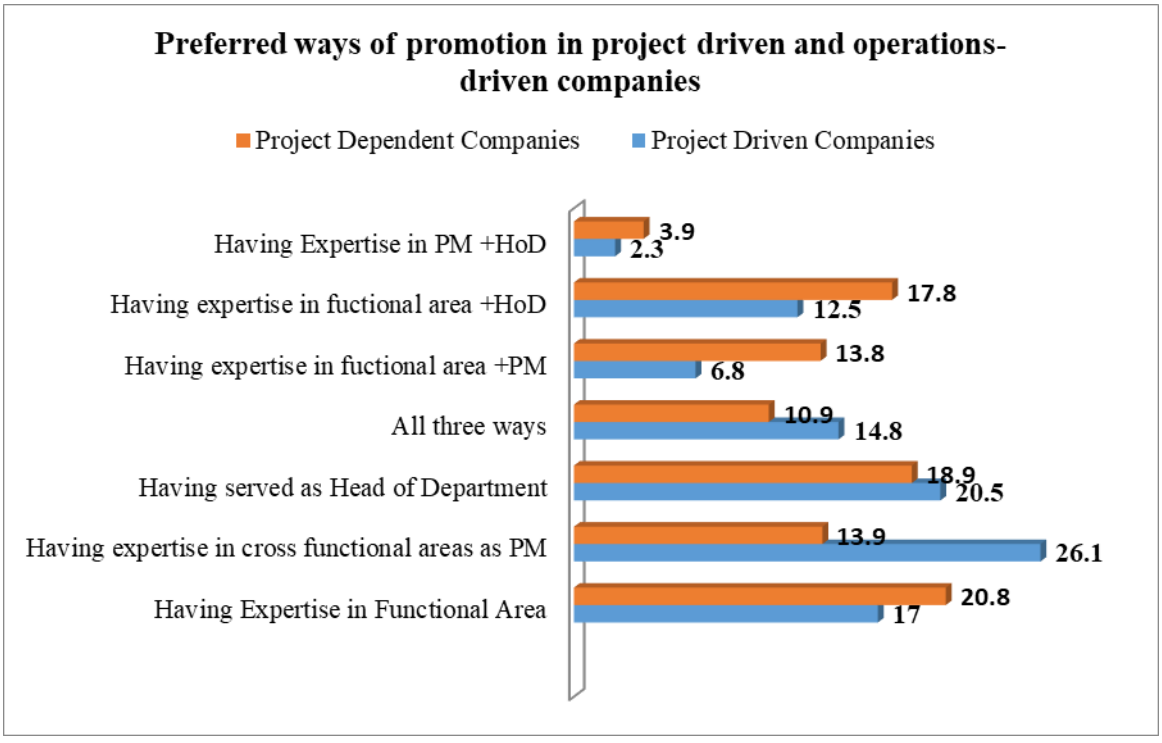


Findings: Results clearly indicates that majority of respondents prefer "option b", i.e. "Continue to take on broader responsibilities within program/project management, with the expectation that these will lead to senior executive positions." It would further be interesting to probe the factors that influence the preferred ways of promotion. Specifically, why respondents preferred option b over others? What is the influence of factors like "risk", "stress" etc. over preferred ways of promotion.

Research Question: What are the factors that influence the preferred ways of promotion for senior positions in organizations?

4.2 Preferred ways of promotion between project driven and operations-driven organizations.

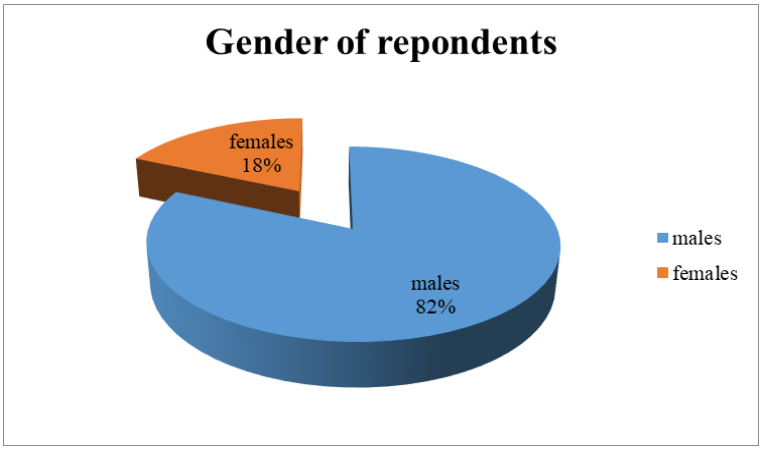
Preferred ways of Promotion	Project Driven Companies		Operations-driven Companies		Total	
	Number	%	Number	%	Number	%
Having Expertise in Functional Area	15	17	21	20.8	36	19
Having expertise in cross functional areas as PM	23	26.1	14	13.9	37	19.6
Having served as Head of Department	18	20.5	19	18.9	37	19.6
Having expertise in fuctional area +PM	6	6.8	14	13.8	20	10.6
Having expertise in fuctional area +HoD	11	12.5	18	17.8	29	15.3
Having Expertise in PM +HoD	2	2.3	4	3.9	6	3.2
All three ways	13	14.8	11	10.9	24	12.7
Total	88	100	101	100	189	100



Findings: The results indicate that there is difference in the preferred ways of promotion in project driven and operations-driven organizations. Therefore, it can be hypothesized that "there is significant difference in the preferred ways of promotion in operations-driven and project driven organizations".

4.3 Number of women holding position of program and project manager in organization as compared to men

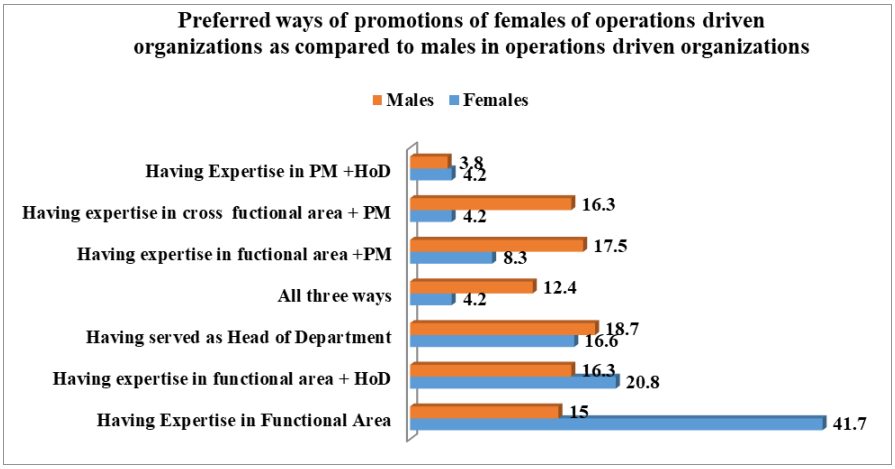
Total number of respondents was 192 out of which 157 were males and 35 females. Hence, it can be safely interpreted that number of women holding positions like program and project managers is very less as compared to men.



Findings: Results clearly show that there is a significant difference in the number of females and male respondents. Therefore, it would be interesting to probe further that why there is less number of females at senior position in comparison to males.

4.4 Preferred ways of promotions of females in operations-driven organizations as compared to males in operations driven organizations.

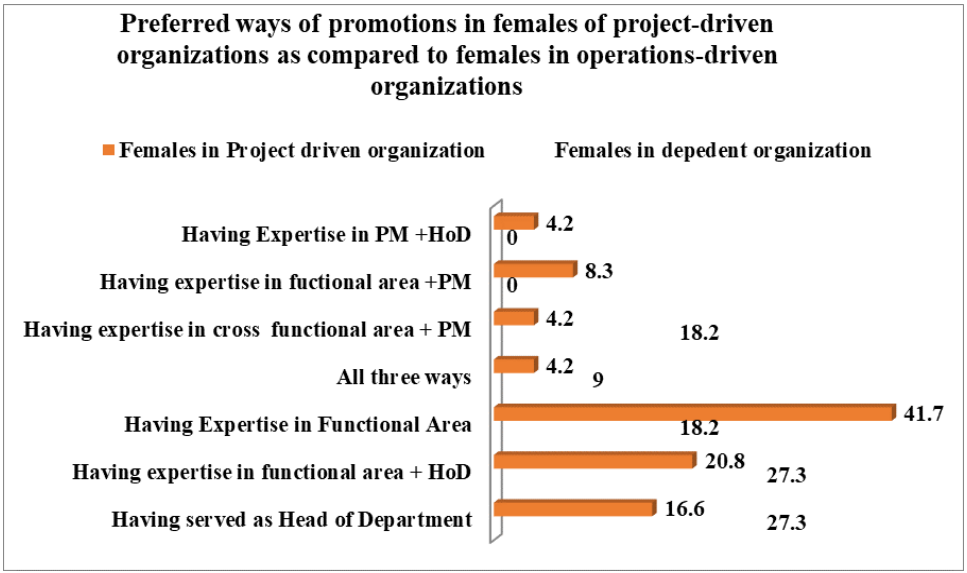
Preferred ways of Promotion	Females in operations-driven Organization		Males in operations-driven Organization		Total	
	Number	%	Number	%	Number	%
Having Expertise in Functional Area	10	41.7	12	15	22	21.2
Having expertise in functional area + HoD	5	20.8	13	16.3	18	17.3
Having served as Head of Department	4	16.6	15	18.7	19	18.3
Having expertise in functional area +PM	2	8.3	14	17.5	16	15.4
Having expertise in cross functional area + PM	1	4.2	13	16.3	14	13.5
Having Expertise in PM +HoD	1	4.2	3	3.8	4	3.8
All three ways	1	4.2	10	12.4	11	10.6
Total	**24**	**100**	**80**	**100**	**104**	**100**



Findings: Results indicates that there is significant difference in male and female respondents. It can be hypothesized that there is a significant difference in preferred ways of promotion between males and females, and further be probed with comparative number of respondents.

4.5 Preferred ways of promotions of females in project driven organizations as compared to females in operations driven organizations

Preferred ways of Promotion	Females in Project Driven Organization		Females in Operations-driven		Total	
	Number	%	Number	%	Number	%
Having served as Head of Department	3	27.3	4	16.6	7	20.0
Having expertise in functional area + HoD	3	27.3	5	20.8	8	7.7
Having Expertise in Functional Area	2	18.2	10	41.7	12	11.5
Having expertise in cross functional area + PM	2	18.2	1	4.2	3	2.9
All three ways	1	9	1	4.2	2	1.9
Having expertise in fuctional area +PM	0	0	2	8.3	2	1.9
Having Expertise in PM +HoD	0	0	1	4.2	1	1.0
Total	11	100	24	100	35	100



Findings: The number of respondents is very small. Therefore, it can be hypothesized that there is a significant difference in preferred ways of promotion in females of operations-driven and project-driven organizations.

5. Conclusion

Inventory of research questions (RQ) derived out of the survey conducted are as follows:

Research Question (RQ)/Hypothesis	
RQ 1:	What are the most preferred ways of promotion for senior positions in organizations?
Hypothesis 1:	There is significant difference in the preferred ways of promotion in operations-driven and project-driven organizations
RQ2:	Why there is less number of females at senior position in comparison to males?
Hypothesis 2:	There is a significant difference in preferred ways of promotion between males and females of operations-driven organization?
Hypothesis 3:	There is a significant difference in preferred ways of promotion in females of operations-driven and project-driven organizations?

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