

# Project management turnover: causes and effects on project performance

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Received 18 December 2003; received in revised form 22 June 2004; accepted 22 October 2004

## Abstract

Changes in management personnel – variously termed displacement, succession or just turnover – have been found by many to have significant negative effects on organisational performance. This paper provides the results of a web-based survey designed to examine this in the project management context. The main findings are that turnover occurs predominantly during the execution phase of the project life cycle, with the main causes being related to career and personal development and dissatisfaction with the organisational culture and project management role. The results also confirm that turnover disrupts and negatively affects the performance of the project team, the project, and potentially negates the competitive advantage of organisations concerned. © 2004 Elsevier Ltd and IPMA. All rights reserved.

*Keywords:* Management turnover; Management succession; Project life cycle; Performance measurement; Project management

## 1. Introduction

The importance of the project manager and continuity of leadership is a recurring theme, both in practice and research (e.g., Sotiriou and Wittmer [1]). For many successful project teams, their invariable disbandment on project completion is a regrettable, if necessary, destabilising factor (Heizer and Render [2]). Similarly, during the project life cycle, the team composition often changes to match the tasks to be implemented – further decreasing stability as well as adding an additional layer of management complexity (Kloppenborg and Petrick [3]).

It is not surprising, therefore, that lack of continuity of individual managers is thought to be a primary factor behind inadequate project execution (e.g., Abdel-Hamid [4]; Rondinelli [5]), completions, system upgrades, morale, teamwork, workloads, group stress levels and “a host of other intangibles” (Longenecker and Scazzero [6]).

Although the occurrence of staff turnover in general has been an area of substantial research,<sup>1</sup> only a relatively small number have addressed the topic of management changes – variously termed displacement, succession or just turnover – with most concentrating on consequences rather than causes. The majority of these have pointed to a significant negative impact on performance and profitability (Birdir [7]).

However, as noted by Carroll [9] ‘researchers have often ignored the organizational context of succession, the timing of succession relative to the organizational life cycle, and the type of transfer undertaken in control surfaces’. Adams and Barndt [10], for example, have also suggested that the idea of specifically choosing a project manager to see the project completely through its life cycle may need to be discarded in favour of selecting at each phase point, a new project manager best suited to the anticipated project environment.

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<sup>1</sup> 1500 studies of turnover have been conducted in the last century (Bluedorn [8])

This paper describes a web-based survey designed to investigate this further. In particular, the goals were to:

- find the reasons for project management turnover;
- examine the extent to which project management turnover is associated with a particular phase of the project life cycle; and
- investigate the effects of project management turnover on project performance.

## 2. Management turnover

### 2.1. Generally

Numerous studies, research and theoretical development have been conducted on the turnover of staff *generally*. The causes of turnover have been associated with demographics, such as age, marital status and tenure (Arnold and Feldman [11]) and include:

- poor commitment and performance (Harrison et al. [12])
- inadequate pay, benefits, working conditions, supervision, fit with co-workers or company culture, definition and responsibilities (Woods and Macaulay [13])
- alternative job possibilities (Mobley et al. [14])

Many believe employee turnover to have significant negative effects on the organisations involved (e.g., Herzberg et al. [15]). Others (e.g., Dalton et al. [16]) argue that some kinds and levels of turnover are actually beneficial or functional for organisations, as they help prevent stagnation, maintain organisational development and provide career opportunities (Ball [17]).

The turnover of *management* staff on the other hand, has been attributed generally to:

- dissatisfaction with the immediate supervisor (Tulacz [18]);
- organisational size (Harrison et al. [12]);
- unpleasant experiences in management (Campion and Mitchell [19]); and
- a lack of resources/staff (Longenecker and Scazzero [6]).

with the main causes of managerial departures in the *construction industry* being due to (Tulacz [18]):

- issues with the immediate supervisor;
- promotion;
- increased compensation;
- stock ownership;
- job security;
- incompetent leadership;

- job autonomy;
- broken promises;
- ethics and integrity; and
- unpaid bonuses.

The effects of management turnover have been the subject of several empirical studies, the overwhelming majority of which have been conducted on sports teams in US football, baseball and basketball, and UK soccer. These have led to the development of three main opposing theories – termed *common-sense explanation*, *vicious cycle* and *ritual scapegoating* – concerning the relationship between turnover and organisational performance:

- *Common-sense explanation*. The common sense, or one-way causality, theory, attributes a significant portion of responsibility for team performance to the actions of the manager (Grusky [20]). Implicit in this explanation is the assumption that team performance will improve under a new manager (Fabianic [21]) as, far from creating conflict and tension, the replacement of managers reduces team conflict, which indirectly improves performance.
- *Vicious-cycle theory*. Vicious-cycle, or two-way causality, theory holds that manager departure is more likely to occur in poorly performing teams and that once the new manager takes over, team performance deteriorates further (Grusky [22]).
- *Ritual scapegoating theory*. Research by Gamson and Scotch [23], although finding some support for the previous two theories, found managerial turnover mainly to have little impact upon team performance. As Fazel and D'Itri [24] and others (e.g., Brown [25]) point out, this implies that the effect of firm performance on turnover – recurring theme in most turnover studies – is typically a consequence of the belief that organisational performance is attributable to the leader or as a result of scapegoating.

Of course, managing a sports team is not necessarily the same as managing a project and, although the research previously undertaken appears to be comparable, as the teams are similar in size, goals, internal structures and environment to that of work groups or teams, it is obvious that that further study is needed in other fields of activity before any generalisations can be made. In fact, as Bartol et al. [26] observe, the magnitude of the managerial turnover problem and the disruptions that are caused, strongly indicates the need for more “concentrated research” in this area.

### 2.2. Project management

From a project management perspective, six major themes are of potential relevance, comprising:

1. *Timing of departure.* This concerns the project managers' state of well-being during the project life cycle (e.g., Sommerville and Langford [27]; Gallstedt [28]).
2. *Internal transfer.* This involves the transfer of authority across similar control structures, such as when one direct manager replaces another or leaves one job for another within the same organisation (e.g., Campion and Michael [19]).
3. *Gender differences.* Top-performing females have been found to turnover rates that are 2.5 times those of their male counterparts (Schwartz [29]).
4. *Project effects.* The consequences of project management turnover can have a significant impact on projects (e.g., Abdel-Hamid [4]).
5. *Loss of organisational knowledge.* There may be loss of portions of the organisation's memory once an individual has left (e.g., Carley [30]).
6. *Arrival effects.* The recruitment and selection of project managers have been long-running problems (e.g., Kerzner [31]).

### 3. The survey

#### 3.1. Data collection

The main questions of the survey questionnaire identified from the literature review were categorised into five sections:

1. General.
2. Impact of Project Management Turnover.
3. Intention to Turnover.
4. Retention.
5. Demographic Information.

Data was then collected by internet from a group of project managers currently employed in each of the major business units of an international aerospace company – the primary utilisation of projects within the company being to design, develop, manufacture, modify and support through life of type, products associated with the aviation and aerospace industry.<sup>2</sup> This included finite projects whose objectives were the integration of weapons and weapon systems, the modification, upgrade and support of military aircraft, the development and installation of command, control and communication systems and the manufacture of both commercial and military aircraft and associated components. The projects themselves ranged from those of a short-term duration (1–2 years), medium duration (3–5

years) and those with longer durations (5–10 years), ranging in size from as little as 20 people to projects that were made up of many hundreds.

The questionnaire was open for completion from 30 September 2003, when the request to participate in the survey was released to the sample frame of project managers ( $n = 150$ ), through to the 10 October 2003, the closing date for all submissions. A total of 67 web-based surveys were completed, comprising 51 USA and 16 Australian nationals, equating to a 45% response rate.<sup>3</sup> The results follow. The individual nationality groupings are not reported as no statistically significant differences were found.

#### 3.2. Results

##### 3.2.1. The respondents

The majority (68%) of respondents are between 35 and 50 years of age, with 27% and 4% over 50 and below 35, respectively – suggesting that the organisation is conservative in nature, requiring staff to be experienced in the key elements of project management prior to attaining the role of a project manager. 43% of respondents hold a Master Degree, with a similar number holding an undergraduate Degree. This indicates the necessity for organisation's project managers to be professionally qualified, with an emphasis not only on undergraduate qualifications, but also on postgraduate qualifications.

Respondents have worked an average of 17.5 years per person for the company – suggesting that they generally feel secure with the organisation, aligned with its values and content to work there. 59% of respondents have been employed as project managers for less than 5 years, with 33% between 5 and 10 years and 8% more than 10 years – indicating that the majority of respondents have worked in other roles within the organisation, possibly in a project management and non-project management discipline, prior to assuming the role of project manager.

22% of respondents have only managed one project during their tenure at the company, with 61% having managed up to 3 projects and 82% having managed no more than 5 projects. The majority of respondents (62%) have not managed a project from start to finish, with 53% having not managed the closeout and finalisation phase and 32% having not managed the concept phase.

Not surprisingly, the older respondents have managed more projects than the younger ones, with those older than 50 having managed more projects than those

<sup>2</sup> A four phased project life cycle was used as described by Verma and Wideman [32] made up of the following phases; concept, development/planning, execution and finalisation.

<sup>3</sup> In general, questionnaires are criticized for having a low response rate, Kartam et al. [33], especially in the construction industry, where in the heat of managing projects, there is little time to respond to survey questions. A rate of 45% is considered reflective of a sampled population for postal/e-mailed surveys (Fellows and Liu [34]).

between the ages of 35 and 50, who in turn have managed more projects than those younger than 35. This pattern is similar for those with different levels of experience, except that those respondents with less than 10 years project management experience have, on average, managed more projects than those with more than 10, and less than 5 years experience.

### 3.2.2. Importance of project managers

The respondent's perceptions of the importance of project managers were measured using a five-point Likert scale with intervals ranging from '1 = strongly disagree to '2 = disagree', '3 = neither agree nor disagree', '4 = agree', concluding with '5 = strongly agree'. The responses were treated as scores and averaged for comparative purposes. An overwhelming majority of respondents (97%, mean 4.76) agree or strongly agree that project managers are critical to project success and that the leadership skills of project managers are more important than management skills (76%, mean 3.97). The majority of respondents (94%, mean 4.61) also agree or strongly agree that project managers can significantly affect the performance of project team members. Of course, these results are not surprising in view of all the respondents being project managers as several previous studies have shown that people usually rate their own profession's contribution relatively highly (e.g., Higgin and Jessop [35]; Faulkner and Day [36])

### 3.2.3. Insider succession and the orientation phase

36% of respondents agree it is better to promote an individual from within the project team to the role of project manager after the turnover event; 12% disagree, with 46% neutral. 64% of respondents disagree with the statement that new project managers are less committed to resolving problems inherited from the departed manager (mean 2.44).

31.5% of the respondents 'disagreed', 38.5% 'agreed' and 30% 'neither agreed nor disagreed' (mean 3.03, standard deviation 1.1) that the project manager should manage each phase of the project life cycle on the same project; thus manage the project from conception to closeout/finalisation.

### 3.2.4. Thoughts about moving

Most (71%) respondents had considered leaving their current role to move to another project management role within the company during the last 12 month. 67% of these have less than 5 years project management experience, while 10% have 5–10 years experience and the remaining 23% have more than 10 years experience – suggesting a slight increase in desire to move with experience.

55% had considered moving into a non-project management role within the company within the last 12 months. The variance between respondents' attitudes

was similar to that above in that 49% of managers with less than 5 years experience, 64% of managers with less than 10 years and 67% of those with greater than 10 years had considered such a move.

39% of participants have considered leaving the company in the last 12 months, with 61% indicating they have not. 59% of respondents with less than 10 years of experience as project managers have considered the move, compared to 28% with less than 5 years experience and 33% with more than 10 years experience. This again suggests that the project managers in the 35–50 age category (64%) to be the most likely to turnover.

### 3.2.5. Causes of turnover

Using a five-point Likert scale with intervals ranging from '1 = not at all' to '2 = to a small extent', '3 = to a moderate extent', '4 = to a great extent', concluding with '5 = to a very great extent', respondent's attitudes were measured to determine the degree to which 13 individual factors would cause them to leave their current role. The respondents agree to some extent with all of the factors presented (average mean 3.47, 0.9 standard deviation).

The results (Table 1) suggest that there are two main groups of factors involved: (1) those related to career motives and personal development, and (2), those related to dissatisfaction with the organisational culture and job design. The first group of factors consists of: 'promotion', 'better career opportunity'; and 'professional stagnation and lack of development' and 'lack of advancement opportunities'. The highest rating factor in group two is the issue of ethics and integrity employed both within the organisation and project team. Other factors in this group include 'a lack of teamwork and cooperation', 'politics and infighting', 'feeling unappreciated' and 'unrealistic performance expectations'.

The lowest score (mean 2.72), was related to whether or not a poorly performing, or failing, project would cause them to leave their role, although 40.3% still rates this as 'to a moderate extent'.

Only 18% of respondents provided additional reasons, including: lack of support and/or commitment from senior leadership/management, inability to get along with the customer or for the customer to keep the project funded, family circumstances, and current policies and procedures that limited creativity and flexibility.

### 3.2.6. Causes of non-turnover

Respondents were requested to indicate the extent to which 11 factors (Table 2) would cause them to stay in their current role. These factors used the same Likert scale as before, with the results then averaged and ranked as before. The average mean of 3.95 (0.8 standard deviation) suggests that respondents agree, to a large extent, that the factors presented would cause the respondent to stay in their current role.

Table 1  
Factors contributing to project management turnover

Factor	Responses						Mean
	1	2	3	4	5	Don't know	
	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %		
Ethics/integrity	1 1.5%	2 3.0%	7 10.4%	11 16.4%	45 67.2%	1 1.5%	4.47
Promotion	1 1.5%	0	6 9.0%	22 32.8%	38 56.7%	0	4.43
Better career opportunity	0	2 3.0%	9 13.4%	34 50.8%	22 32.8%	0	4.13
Professional stagnation/lack of development	1 1.5%	2 3.0%	12 17.9%	36 53.7%	16 23.9%	0	3.96
Lack of advancement opportunities	3 4.5%	4 6.0%	12 17.9%	32 47.7%	16 23.9%	0	3.81
Lack of teamwork and cooperation	0	9 13.4%	13 19.4%	33 49.3%	12 17.9%	0	3.72
Politics and infighting	1 1.5%	7 10.4%	20 29.9%	20 29.9%	18 26.8%	1 1.5%	3.71
Feeling unappreciated	2 3.0%	8 11.9%	16 23.9%	23 34.3%	18 26.9%	0	3.70
Unrealistic performance expectations	1 1.5%	9 13.4%	19 28.3%	24 35.8%	14 20.9%	0	3.61
Ineffective manager	5 7.5%	10 14.9%	11 16.4%	22 32.8%	18 26.9%	1 1.5%	3.58
Lack of resources staff	6 9.0%	14 20.9%	15 22.4%	22 32.8%	10 14.9%	0	3.24
Inability to take time off/get away from work	6 9.0%	10 14.9%	25 37.3%	15 22.4%	11 16.4%	0	3.22
Poor performing/failing project	5 7.5%	23 34.3%	27 40.3%	10 14.9%	2 3.0%	0	2.72

The two most important factors relate to organisational culture and job design – challenging work and the ethics and integrity inherent in the organisation and its employees. Career motives are again also a strong contributor, with development, growth and advancement opportunities being very important. The least significant factor is job security, although this would still ‘to a moderate extent’ negate the occurrence of the turnover event.

The results for project managers with less than 5 and 10 years experience, and for those respondents who are less than 35 years old or between 35 and 50 years old, are similar to the previous section with regard to ‘job security’. Those over the age of 50 (27%), however, have a lower mean of 2.61. Additionally, respondents with more than 10 years experience as a project manager (8%) have a significantly lower mean of 1.83 (standard deviation 1.2), indicating ‘job security’ is a factor that would only slightly minimise turnover for these particular groups of project managers with 23.1 and 27.3 years tenure in the organisation respectively.

### 3.2.7. Effect of turnover on overall performance

9% agree, 34% were neutral and 54% disagree (3% don't know) that project management turnover improves project performance, with 49% ‘agreeing’, 21% ‘strongly agreeing’ and 22% undecided (mean 3.89, 0.8 standard deviation) that turnover disrupted project performance. The majority of respondents (85%) disagree (mean 1.74, 1.0 standard deviation) that project management turnover has no effect on project performance.

15% ‘disagreed’, 39% were ‘neutral’, 39% ‘agreed’ (7% don't know) (mean 3.27, 0.9 standard deviation) that transferring from one project to another negatively impacted project productivity and performance.

The majority of the open-ended comments concerning this issue centred on the fact that while most believed turnover has a negative impact on the performance of the project team and on the project as a whole, it was not always negative. For instance, if a project is being led by a manager who was ineffective, or one who was not performing, then the turnover event would most likely result in increased performance and in this case,

Table 2  
Factors minimising project management turnover

Factor	Responses						Mean
	1	2	3	4	5	Don't know	
	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %		
Challenging work	0	0	4 6.0%	38 56.7%	25 37.3%	0	4.31
Ethics/integrity	2 3.0%	1 1.5%	7 10.4%	26 38.8%	29 43.3%	2 3.0%	4.22
Development and growth opportunities	0	2 3.0%	8 12.0%	33 49.2%	24 35.8%	0	4.18
Advancement opportunities	2 3.0%	0	9 13.4%	35 52.2%	21 31.4%	0	4.09
Loyalty	0	3 4.5%	9 13.4%	36 53.7%	19 28.4%	0	4.06
Being part of a team	0	3 4.5%	9 13.43%	40 59.7%	15 22.38%	0	4.00
Having organisational influence/authority	1 1.5%	5 7.5%	5 7.5%	41 61.1%	15 22.4%	0	3.96
Effective manager	0	4 6.0%	11 16.4%	36 53.7%	15 22.4%	1 1.5%	3.94
Salary benefits	1 1.5%	5 7.5%	13 19.4%	30 44.7%	18 26.9%	0	3.88
Recognition	4 6.0%	4 6.0%	19 28.3%	25 37.3%	15 22.4%	0	3.64
Job security	6 9.0%	13 19.4%	18 26.9%	21 31.3%	9 13.4%	0	3.21

project management turnover is positive. Other comments highlighted that respondents felt, from previous experience, that management turnover tends to occur towards the end of a project. The result of this turnover is to significantly increase the closeout schedule and associated cost of the project.

### 3.2.8. Effects on individual factors

This section examined participants perceptions on the extent to which turnover contributes to nine factors (Table 3). A five-point Likert scale was used intervals ranged from '1 = not at all' to '2 = to a small extent', '3 = to a moderate extent', '4 = to a great extent', concluding with '5 = to a very great extent'. The responses to each question were again averaged and ranked for importance.

As Table 3 shows, respondents felt the turnover of the incumbent project manager contributed to all of the identified factors. The factors all had negative impacts to both the project team and project performance, with the majority of responses falling into the 'to a moderate extent' and 'to a great extent' categories (3.03 average mean, 0.9 standard deviation 0.9). The main factors are communication breakdown, loss of focus and direction and increased workload for others. These are fol-

lowed by three, closely scored factors, comprising additional turnover amongst staff, morale and motivational problems with the project team and difficulty in achieving performance goals. Factors such as 'the loss of teamwork and cooperation', as well as 'chaos/disorganisation' were rated the lowest.

## 4. Discussion

### 4.1. Causes of turnover

The factors in our first group of causes support the literature in demonstrating that project managers do leave their roles due to dissatisfaction with their immediate supervisors, career prospects and lack of advancement opportunities. Clearly, the continued development of project managers appears to be paramount to job satisfaction and the minimisation of unwanted turnover regardless of the experience levels, or the age of project managers. A number of practical activities aimed at enhancing management development have been suggested that should be beneficial, including formal training, effective performance appraisal and review, cross training, special assignments, formal career

Table 3  
Project management turnover contributes to a number of undesirable factors

Factor	Responses						Mean
	1	2	3	4	5	Don't know	
	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %	<i>n</i> , %		
Communication breakdown	2 3.0%	10 14.9%	23 34.3%	24 35.8%	7 10.5%	1 1.5%	3.36
Loss of focus and direction	6 9.0%	9 13.4%	22 32.8%	19 28.4%	10 14.9%	1 1.5%	3.27
Increased workload for others	3 4.5%	13 19.4%	24 35.8%	23 34.3%	2 3.0%	2 3.0%	3.12
Morale/motivational problems with project team and staff	2 3.0%	17 25.4%	23 34.3%	21 31.3%	2 3.0%	2 3.0%	3.06
Additional turnover among staff	2 3.0%	17 25.4%	23 34.3%	21 31.3%	2 3.0%	2 3.0%	3.06
Difficulty in achieving performance goals	3 4.5%	13 19.4%	28 41.8%	22 32.8%	0	1 1.5%	3.05
Increase in unresolved problems	7 10.4%	15 22.4%	25 37.3%	17 25.4%	1 1.5%	2 3.0%	2.85
Chaos/disorganisation	9 13.4%	17 25.4%	20 29.8%	15 22.4%	3 4.5%	3 4.5%	2.78
Loss of teamwork and cooperation	7 10.4%	16 23.9%	30 44.8%	10 14.9%	2 3.0%	2 3.0%	2.75

development planning, mentoring, and on-the-job coaching (Longenecker and Scazzero [6]). At the theoretical level, these results also support the argument that people today need to satisfy their needs for esteem and achievement, rather than a sense of belonging (Turner [37]).

The factors in the second group seem to be more directed at the organisational culture in which the work is being performed. These findings also support previous research, except that the ranking and level of agreement differs. In particular, the issue of 'ethics and integrity' has been rated much lower in previous studies. This may be because the causes intrinsic to this group have different levels of importance in the uncertain and complex environment that project managers operate in, when compared to their other managerial counterparts.

The proportionately high number of project managers who indicated they had, over a 12-month period, seriously considered leaving their current roles also enforces the legitimacy of the factors in both groups. While the figures are surprising, even more startling is the finding that over half of the respondents (55%) indicated they had considered moving into a different discipline all together. In fact, those managers with between 5 and 10 years experience, and predominantly within the 35–50 year old age grouping, were found to be the most likely to turnover and the most 'at risk'. Although these findings may not directly transfer into actual turnover, previous researchers such as Lee and Mowday [38] have reported that a willingness or intention to leave the cur-

rent role may indeed lead to actual turnover; this has been found to be detrimental to project performance.

#### 4.2. Association with the project life cycle

As reported, over half of the respondents (58%) have not managed the 'closeout and finalisation phase'. This is followed by the 'concept phase' (35%).<sup>4</sup> This suggests that project management turnover occurs primarily in the execution phase of projects with a significant number of respondents moving into new projects prior to finalisation of current projects. As it does not appear that previous research has been conducted to determine the phase where project management turnover primarily occurs, these findings are new. When moving into the new project, it appears likely the majority of managers are also skipping the concept phase, which normally occurs prior to contract award, and directly entering the design/planning or execution phases of the project lifecycle. In addition, research conducted by Briner et al [39] highlighted the theory that many project managers experienced complacency and diminishing enthusiasm in the execution phase. It is suggested that these issues may also contribute to the turnover event and the determination of the re-entry point where project managers join a new project.

<sup>4</sup> Interestingly, previous research (Gallstedt [28]) has shown these two phases to be most associated with project managers' stress and pressure.

Furthermore, as each phase can be regarded as a project, or sub-project, in its own right, and managed accordingly (Stretton [40]) with different skills and task knowledge required of the project manager, it is concluded that it is advantageous for project managers to have experience in each phase. An alternative, of course, is Adams and Barndt's [10] suggestion that individual project managers should not manage a project throughout its entire lifecycle, although the results obtained from the project managers on this aspect were inconclusive. However, for projects with short durations it may be advantageous for project managers to lead and manage their individual projects from concept to closeout to minimise the effects on performance.

#### 4.3. *Effect on project performance*

The respondents generally disagree with the 'common-sense explanation', with over half of the population (54%) disagreeing that project management turnover improves project performance. In addition, approximately one third of the respondents (34%) neither agrees nor disagrees with the theory. This large percentage of neutral responses may be due to the subjective nature of the question, in that, if the project manager in question was an ineffective leader, then it is quite likely the turnover event would improve performance. However, this 'positive' outcome is seen as the exception to the rule. The findings clearly demonstrate that for the vast majority of occurrences, project management turnover will negatively affect the project team members. This leads to performance issues, causing disruption and leading to the project objectives being compromised for a period.

The results suggest that succession planning, in the form of transferring/promoting someone from within the project team to the project management role, is the preferred approach to minimise the effects of the turnover event and orientation phase. Conversely, authors such as Chapman [41] have argued that even if the incoming team member has the luxury of a handover period from the departing manager, the project information is so voluminous and complex it cannot be passed in totality from one individual. Irrespective, it is suggested that this has the potential to mitigate a number of the negative impacts experienced by the project team and should be pursued.

#### 4.4. *Other findings*

Previous research determined that the main factor in retention and continuity of employment was 'challenging work', followed by 'loyalty', 'having organisation influence and authority', 'advancement opportunities' and 'job security' (Ghiselli et al. [42]; Longenecker and Scazzero [6]; Scott [43]), and our results support this with the addition of ethics and integrity. With the vast

majority of aviation and aerospace projects in the American and Australia accomplished in a cross-functional, matrix setting, where project managers only have project authority over the project team, the desire for organisational influence and authority appears to be a key factor and one that Sotiriou and Wittmer [1] defined as 'the right to suggest to others what needs to be done and when it needs to be done'.

## 5. Conclusions

This paper has synthesised the results obtained from a survey of project managers employed by an international aircraft organisation, detailing and discussing the causes of project management turnover, the phase in which it primarily transpires, and the negative consequences associated with its occurrence. In summary, the results indicate that:

1. Project managers believe they are critical to project success and have a significant impact on the performance of their project teams.
2. A considerable number of project managers consider leaving their current roles and moving into other project management roles, as well as non-project management roles within organisations.
3. Project management turnover occurs primarily in the execution phase of the project lifecycle and for the reason that, it may be associated with increasing risk, cost and the likelihood of project failure.
4. The primary factors that cause project management turnover can be categorised into two groups, these being: career motives and personal development, as well as dissatisfaction with organisational culture and the project management role.
5. Project management turnover directly affects the project team, negatively disrupting project performance and potentially affecting the profitability of the organisation.

From a practical point of view, it is obvious from 5. that some degree of action should be beneficial in avoiding its worst effects in project management. The more obvious of these are:

- Promote effective project management development activities that increase and enhance current skills, such as in formal training, effective performance appraisal and review, cross training, special assignments, formal career development planning, mentoring, and on-the-job coaching.
- When developing project managers, employ a rotation process to ensure that project managers gain experience in all life cycle phases.
- Employ a great use of succession planning.



The results also have broad implications for future research in the field of management turnover in general. In particular,

- The findings contradict and disagree with a number of previous theories on the cause of management turnover and theories formulated from the investigation and analysis of international sports teams. For example, respondents disagreed with the ‘common-sense explanation’, with over half disagreeing that project management turnover improves project performance. Additional research is needed to determine the length of disruption to project performance, and to investigate the effects of project management turnover from the project team member perspective.
- The majority of studies have identified the factors that cause the turnover event in isolation, instead of taking a ‘holistic’ view to ascertain if the identified factors and nurturing conditions are interactive from a systems perspective. Further research with this orientation is therefore likely to be beneficial for both practice and theory.
- Future studies may want to include not only insider turnover, but also an investigation into the factors and reasons that lead to personnel who voluntarily or involuntarily leave the organisation in terms of dysfunctional and functional turnover.
- Additional opportunity exists for further research regarding project management turnover of other organisations, not only in the aviation and aerospace industry, but also in a wider range of industries including construction, defence, engineering, biotechnology and pharmaceutical.

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