Universidade de São Paulo
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MATEUS HARUO DE FREITAS MENDES

A cultural investigation of causes and effects of project management turnover in Australia

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A CULTURAL INVESTIGATION OF CAUSES AND EFFECTS OF PROJECT MANAGEMENT TURNOVER IN AUSTRALIA

Trabalho de Conclusão de Curso apresentado à Escola de Engenharia de São Carlos da Universidade de São Paulo para a obtenção do Título de Engenheiro de Produção Mecânica.

Orientador: Prof. Dr. Fernando César Almada Santos

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ABSTRACT

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Project-oriented Organizations have developed a tendency to focus on project success criteria as opposed to employee welfare. Low job satisfaction and large voluntary turnover rates are very common among Project Managers. This paper aims to understand the factors that promote job satisfaction, and identify the ones that drive turnover intention. A survey has been conducted with Project Managers in Australia. A factor analysis was conducted, three components of causes and two components of retention factors are suggested. The use of Hofstede's cultural dimensions model, together with a review of current Project Human Resource Management literature, will base the discussion on the main factors that should be addressed in order to effectively retain management personnel.

Keywords: Project management. Voluntary turnover. Project-oriented organization. Human resources management. Culture dimensions. Organizational culture.

LIST OF FIGURES

LIST OF CHARTS

LIST OF TABLES

SUMMARY

1 INTRODUCTION

In recent years, interest in project management has been growing significantly (THOMAS; MENGEL, 2008), and companies are increasing the use of project-based work and organizational structure (THIRY; DEGUIRE, 2007), especially in some industries as pharmaceutical, automotive, advertising, entertainment, media, consulting, and IT (SÖDERLUND; BREDIN, 2006).

The dynamic characteristics of the project environment imposes significant pressures on employees. Previous research suggests that, by and large, project-oriented organizations do not do well on dealing with the situation, both because it may threaten the profitability, and the requirement of an effective resource management system (TURNER; HUEMANN; KEEGAN, 2008).

There is currently sufficient evidence that supports the ongoing issue of project manager retention, and the cost of high voluntary turnover (HUSELID, 1995; KABUNGAIDZE; MAHLATSHANA; NGIRANDE, 2013; PARKER; SKITMORE, 2005).

There are 11.5 million people employed in Australia (AUSTRALIAN BUREAU OF STATISTICS, 2014) earning $674 billion per annum (AUSTRALIAN BUREAU OF STATISTICS, 2015). Considering an average turnover rate of 13%, around 1.5 million of these employees are likely to leave their jobs in the next year (BEGLEY, 2013), they take with them customer relationships, internal networks, institutional knowledge and specialized skills. Staff turnover costs an organization, with a conservative approach, 75% of annual salary including the cost of recruitment, selection, induction, training and lost productivity. It means that employee turnover costs Australian employers around $66 billion dollars each year.

Considering an average annual salary for a project manager in Australia to be approximately US$ 139,497, the displacement of one manager would cost the organization more than one hundred thousand US dollars. In Brazil, based on an average salary of US$ 70,491, that cost would be over fifty thousand dollars (PMI, 2011). There is currently heavy research in retention strategies being used to minimize unwanted turnover, given the economic impact it has on the financial situation of the organizations. Yet, project oriented organizations have many particularities that are not considered in these studies.

The problem caused by human resources turnover can be minimized by the use of specific practices or policies (ASQUITH; BEGLEY; SARDO, 2008). Nevertheless, there is still doubt on ether the same practices would work across different organization profiles. Leadership, motivation, and management theories reflect the author cultural background, and previous research questions the validity of these theories on regions with different cultures (HOFSTEDE, 1980).

The main purpose of this paper is to identify and measure the factors affecting project managers' intention to leave their current position, and the effects of this event on project performance. An analysis of a survey suggested three components of factors driving turnover intention, and two components of factors minimizing it. Further analysis explains how demographics characteristics might influence turnover decision. A discussion is provided on whether the cultural background of the project manager might influence turnover intention and requires adaptation for retention practices.

2 PROJECT MANAGEMENT OVERVIEW

2.1 Definition and objectives

According the Project Management Body of Knowledge (2008), the definition of Project Management is “the application of knowledge, skills, tools and techniques to project activities to meet the project requirements”, where project means “a temporary endeavor undertaken to create a unique product, service or result”.

Since projects are temporary, they have initiating and closing phases. The project ends by reaching its objectives or by being terminated, either because it cannot meet its goals or because it is not needed anymore. On the other hand, this temporary nature cannot be applied to the outcomes and impacts of a project, which are long-lasting in most cases (PROJECT MANAGEMENT INSTITUTE, 2008).

According to the PMBOK Guide (2008), project management activities typically include identifying requirements, addressing stakeholders’ expectations, and balancing the competing project constraints: scope, quality, schedule, budget, resources, risk, and others (specific to each project). The person assigned by the organization to manage the project activities and achieve the project objectives is called Project Manager.

2.2 Project oriented organizations

A regular organization has procedures that guide repetitive processes on an ongoing basis. Although there are repetitive elements in some project deliverables, the unique nature of project work brings uncertainties around the results, and requires a more dedicated planning than other routine work (PROJECT MANAGEMENT INSTITUTE, 2008)

Turner and Keegan (2001) define Project Based Organizations (PBOs) as “organizations in which the majority of products or services are produced through projects for either internal or external customers”, and it may be a standalone organization or a subsidiary of a larger one.

PBOs differ significantly from functional organizations in several aspects, like structure, perspective on time, processes and people. Projects are the main organizational unit in a PBO, and project managers have authority and independence (WIEWIORA et al., 2009). The role and responsibilities of a functional manager are significantly different from those of a project manager. The first usually reports to superior management in a chain of command, while the

last typically have high status and direct control over business functions, staff and other resources (HOBDAY, 2000).

3 HUMAN RESOURCE MANAGEMENT

According to Mathis (2000), Human Resource (HR) management "deals with the design of formal systems in an organization to ensure the effective and efficient use of human talent to accomplish organizational goals." The main goals are:

i. Productivity: measured by the amount of output per employee, continuous improvement of productivity is necessary to maintain competitive advantage.

ii. Quality: this goal requires continuous changes in order to improve work processes through reengineering of the organizational work. Success criteria is the value perceived by the customer and his/her satisfaction, along with other traditional HR performance indicators.

iii. Service: HR management considerations are important when identifying service blockages and redesigning operational processes. The involvement of all employees often requires changes in corporate culture, leadership styles, and HR policies and practices.

Robbins and Judge (2013) suggest that Human Resource policies and activities can greatly influence employee behavior and attitudes. Some of these activities are:

i. Selection practices

ii. Training and development programs

iii. Performance evaluation systems

An organization rely on its selection practices to identify competent candidates and accurately match them to their respective jobs. A poorly designed selection system will fail in achieving the right person–job fit.

Training programs have a direct benefit of increasing employees' potential by directly improving their skills to complete their job. Nevertheless, in order to convert the better ability into performance also largely relies on the employee's motivation.

A second benefit of training is the improvement of employees' self-efficacy, i.e. their expectation that they can successfully execute the behaviors required to produce the desired

outcome. Therefore, training is a means to positively influence employees to undertake job tasks and exert a high level of effort.

Performance evaluation systems are used to accurately assess an individual's performance as a basis for allocating rewards, which means that if the evaluation is inaccurate, employees will be over or under-rewarded. This is very important, because, if evaluations are perceived as unfair, the results are reflected in reduced effort, increases in absenteeism, or even voluntary turnover.

One of the great challenges HR management in organizations are facing is to adapt to a more varied labor force, and to ensure that diverse groups are managed and treated equitably. The three most prominent dimensions of the demographic shifts affecting organizations are increasing racial / ethnic diversity, more women in the workforce and significantly aging workforce (MATHIS, 2000).

3.1 Human Resource Management in project oriented companies

Many project-oriented organizations have developed a tendency to disregard the wellbeing of their employees, which can ultimately lead to high turnover rates. Research has shown that it can be a consequence of lack of Human Resource Management (HRM) practices suited to this type of organization (BREDIN; SÖDERLUND, 2011). This is critical for the survival of the projectised organization, as employees are the ultimate asset of any organization and are a key constituent of organizational strategy (GÄLLSTEDT, 2003).

Human resource management processes are of core importance for the project-oriented company. It affects not only the acquisition and use of human resources, but also the employment relationship the employee experiences. Some argue that specific characteristics of the project-oriented organization, such as the temporary nature of the work processes and the dynamic environment, create particular challenges for HRM (HUEMANN; KEEGAN; TURNER, 2007).

For Turner et al. (2008) HRM is deemed to have two purposes: the "management support role", where organizations obtain the employees with the necessary skills and experience to complete work and the "employee support role" where organizations care for and maintain the welfare of the employee. It is suggested that in projects, the latter role is given insufficient focus, perhaps a consequence of being too task and efficiency focused in management.

Turner et al. (2008) found that the most significant problems of employee well-being and ethical treatment in project-oriented organizations occur with small to medium sized projects, i.e. lasting three to nine months. With tighter timescales, the projects require a more intense pace of work, and the balance of demand peaks is a lot more difficult. They also present an additional complexity to plan for the required staffing, and the hiring process of temporary workers tend to take too long to be worthy, all of which often result in an increased workload for the individual team members.

Further, Turner et al. (2008) highlight that employees face challenges in the development of their careers in a PBO, because of the high uncertainty over their futures, meaning motivation is a cumbersome challenge for project managers. According to the cognitive evaluation theory (one of the most focused applications of motivation theory), extrinsic rewards will reduce intrinsic motivation in completing tasks, leading to lower quality outputs. This is especially crucial in project management, as a majority of project-based companies offer little in the way of extrinsic rewards such as promotions and advancements.

Furthermore, Turner et al. (2008) suggests that the use of a resource management system can reduce the stress on employees. Though some consulting companies do not use it, because they want their employees to be responsible for their own utilization, and so the people who do not perform / network well will leave the company.

Previous research on project management turnover has found evidence contradicting many theories on causes of management turnover, suggesting that project management have specific needs arising from the PBO's environment that differ them from general management. The primary factors that cause project management turnover can be categorized in two groups: career motives and personal development. Also, dissatisfaction with organizational culture and the project management role heavily contributes to the intention to leave (PARKER; SKITMORE, 2005)

Parker and Skitmore (2005) suggest that the main factor in retention and continuity of employment is 'challenging work', followed by 'loyalty', 'having organization influence and authority', 'advancement opportunities' and 'job security'. This is also supported by other previous research (GHISELLI; LA LOPA; BAI, 2001; LONGENECKER; SCAZZERO, 2003; SCOTT, 2002).

Other authors suggests that another reason for neglecting the employee support role in projects is that it is not deemed critical for success, after finding that the "personnel factor" was always superseded by "technical performance" and "efficiency of project execution" as being crucial for success (BELOUT, 1998). Thus, the notion that projects are managed as "task systems" rather than "behavioural systems" as reinforced by Turner et al. (2008) is reflected in current project success criteria, that is, the triple constraints - time, cost and scope - which offer little attention to human resource factors. Similar conclusions were reached in Atkinson (1999), in which projects were deemed to fulfill much more than the triple constraints and the benefits they provide to stakeholders (such as employees) should be a part of project success.

3.2 Job satisfaction and voluntary turnover

The lack of ethical treatment of individuals in a dynamic project environment leads to project breakdown from within an organization rather than from external influences. It also promotes employee dissatisfaction with the job, unhappiness and misery in personal life. Moreover, it all reflects on the high turnover rates in the organization.

Turner et al. (2008) suggest that the project management career is self-selecting, because most people who do not like the work environment tend not to stay long on the current job, usually opting out within five years. However, for the career to be attractive, project assignments must be linked to other professional development needs and career aspirations.

In order to establish the development of an employee's career, it is necessary to establish a clear defined goal/vision for the employee's advancement in the organization, in terms of a project-oriented company it is necessary to provide resources for the employee to ascend. As Huemann et al. (2007) mentioned: "(...) the functional silo does not exist and arguably such certainty is a thing of the past in most organizations (…)". Therefore, companies need to provide new tools for career development and effectively communicate to their employees their prospects in the organization. As a result, employee uncertainty should be reduced, and with it, the negative perceptions of the organization. By doing this, psychological need for continuity can be fulfilled (GÄLLSTEDT, 2003), intrinsic motivation will develop and voluntary turnover rates are predicted to diminish (PARKER; SKITMORE, 2005).

Personal growth involves the employee's development as a human being. The focus is on the formation of inner self-belief, confidence and a positive working attitude in the work place. Whereas professional learning imparts the furthering of employee skill in their respective field,

it acts as a reference to the changes in proficiency level of the employee as they participate across projects.

Lastly, employee dissatisfaction can eventually result in poor performance and productivity, symptoms to which are: a lack of motivation, relationship conflict and minimal cooperation. Moreover, if employees' lack security and comfort from their job, they will seek alternative working environments, as this a basic need for any human. On the other hand, the emotional challenges created will deter employee focus from set tasks, potentially jeopardizing an entire project.

4 CULTURE

Schein (2015) states that Organizational Psychology has historically shifted from and individual-oriented industrial approach to a more group-and-systems-oriented organizational approach. Recently the filed has become more differentiated, fragmented, and individualized, despite culture. National culture, especially, have become a big topic.

In present day, with facilitated communication tools, transport access, deregulation and increase in trade agreements, even small companies can operate across different countries. This way, situations where it is necessary to deal with different cultural backgrounds are increasingly more common.

4.1 Hofstede's doctrine

Geert Hofstede (2011), Dutch social psychologist and anthropologist, developed a multidimensional model of national culture based on his survey-based research conducted with employees of the IBM corporation around 1970 (HOFSTEDE, 1980). From that time, the model has been expanded and updated by several studies and collection of a wide range of cross-cultural data.

Hofstede's first published monograph *Culture's Consequences: International Differences in Work Related Values* (HOFSTEDE, 1980) became widely known in the psychology and sociology field, while his book *Cultures and Organization: Software of the Mind* spread his work even further to the general readership public (HOFSTEDE, 1991).

Hofstede (2001), states that "social systems can exist only because human behavior is not random, but to some extent predictable." Moreover, to make such predictions, we assume that each person has a relatively stable "mental program", which leads to consistent behavior in similar situations.

It is still unclear what determines each person's mental programming, but it is believed to be influenced by both genetics and social interaction. Every person develops this mental program with influence of the family, schools and organizations, so it contains a component of national culture.

Every person's mental programming is unique in part, while the other part is shared with others. Hofstede (2001), broadly distinguish three levels in mental programs, as pictured and described below:

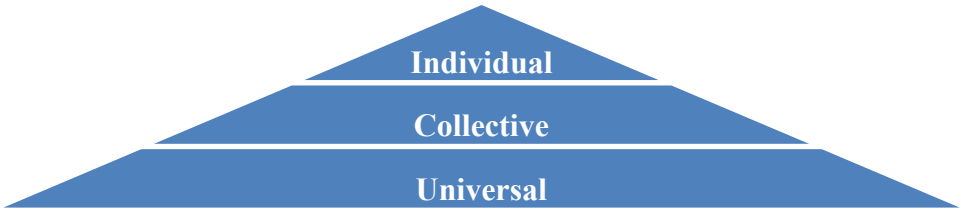

Figure 1 - Three levels of human mental programming; adapted from Hofstede (2001)

The most basic level is called universal, and it refers to the mental programming that is shared by almost all humankind, through "the biological 'operating system' of the human body". It includes expressive behaviors, such as laughing and weeping; and associative and aggressive behaviors also found in higher animals.

The second level, called collective, is the shared with some people, commonly people belonging to a certain group or category. It includes language, deference to the elders, the physical distance kept from other people while interacting, and "the way we perceive general human activities such as eating, making love, and defecating and the ceremonials surrounding them."

The individual level is the only unique part of human programming. It refers to the individual personality, and explains the wide range of alternative behaviors within the same collective culture.

There is no clear separation between each level. It is a matter of debate both the distinction between individual personality and collective culture, and which phenomena are culture specific and which are human universals.

Further, Hofstede explains that we cannot directly observe mental programs, so we infer it from what we can observe, i.e. behavior (words or deeds). The terms used to describe intangibles, such as mental programs, are called constructs. In the second edition of his book, *Culture's consequences: comparing values, behaviors, institutions, and organizations across nations* he writes: "constructs do not 'exist' in an absolute sense: We define them into existence" (HOFSTEDE, 2001).

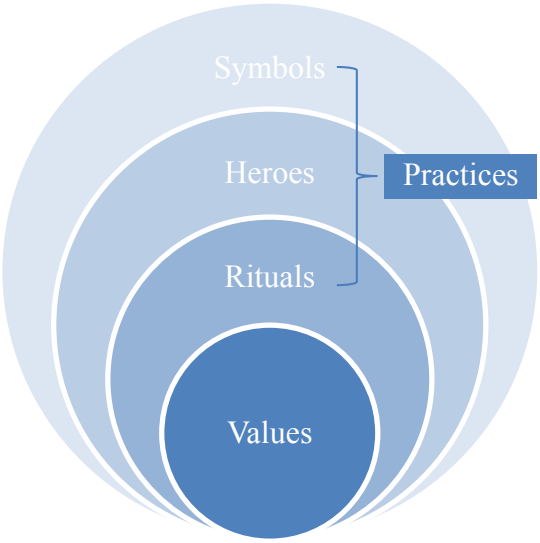

Figure 2 - The "Onion Diagram": manifestations of culture at different levels of depth; adapted from Hofstede (2001)

Therefore, in order to understand social systems, it is necessary to define constructs and include them in models that represent the reality in a simplified design. In this simplification, the subjectivity of interpretation is included in the process, so the constructs and models used in socials sciences reflects the mental programs of the scholars involved in their creation.

Hofstede (2011) defines culture as "the collective programming of the mind that distinguishes the members of one group or category of people from others".

According to Hofstede (2001), culture manifests itself in both visible and invisible ways. His definition of includes four layers of manifestations, with values at the core, and the visible manifestations subsumed as practices, at the outer layers, as in Figure 2. As values are reflected by practices, the manifestations become apparent to an outside observer. Their cultural meanings, however, are invisible, because they are based on the insiders' interpretations.

Symbols are the most superficial layer, comprised of "words, gestures, pictures, and objects that carry often complex meanings recognized as such only by those who share the culture." This category includes vocabulary, jargons, dress codes, hairstyle, brands, flags, and status symbols.

Heroes belong in the middle layer of practices. They are "persons, alive or dead, real or imaginary, who possess characteristics that are highly prized in a culture and thus serve as models for behavior."

Rituals are in the inside layer of practices, and are defined as “collective activities that are technically unnecessary to the achievement of desired ends, but that within a culture are considered socially essential, keeping the individual bound within the norms of the collectivity. Rituals are therefore carried out for their own sake.” Examples are ways of greeting and paying respect to others, social and religious ceremonies.

4.2 Hofstede’s model of national culture

Minkov and Hofstede (2011) describe several salient characteristics that provided Hofstede’s doctrine with the status of a paradigm shift in cross cultural research. First is the approach by which Hofstede split the culture phenomenon into independent dimensions.

Cross-cultural studies have been often criticized because of the use of culture as a single factor to explain statistical differences among populations from different nations or ethnics that could not be accounted for in a more specific way. Singelis et al. (1999) noted that psychology researchers treated culture as a package containing several variables, and that any of which could be the factor influencing the subject in study.

Hofstede (1980) empirically identified a number of criteria, which he called “dimensions”, to describe the cultural differences among nations on how basic problems are addressed. These dimensions were constructed based on variables correlating at the national level, not on the individual or organizational level, what makes these measures meaningless as descriptors of individuals or organizations (MINKOV; HOFSTEDE, 2011).

On his first monograph (1980), based on a survey database of values and sentiments of IBM’s employees, Hofstede introduced four dimensions in his theoretical model, labeled below with their related areas:

I. Power Distance (from small to large): social inequality, including the relationship with authority. It represents “the extent to which the less powerful members of organizations and institutions accept and expect power to be distributed unequally. The basic problem involved is the degree of human inequality that underlies the functioning of each particular society.”

II. Collectivism versus Individualism: the relationship between the individual and the group, more specifically, “the degree to which individuals are supposed to look after

themselves or remain integrated into groups, usually around the family. Positioning itself between these poles is a very basic problem all societies face."

III. Femininity versus Masculinity: the "social" (or "emotional", as in later editions of the book) implications of having been born as a boy or a girl. It refers to "the distribution of emotional roles between the genders, which is another fundamental problem for any society to which a range of solutions are found; it opposes 'tough' masculine to 'tender' feminine societies."

IV. Uncertainty Avoidance (from weak to strong): ways of dealing with uncertainty, relating to the control of aggression and the expression of emotions. "The extent to which a culture programs its members to feel either uncomfortable or comfortable in unstructured situations. Unstructured situations are novel, unknown, surprising, or different from usual. The basic problem involved is the degree to which a society tries to control the uncontrollable."

Eleven years later, with the collaboration of Michael Bond from the University of Hong Kong, Hofstede introduced a fifth dimension in his book *Cultures and Organization: Software of the Mind* (HOFSTEDE, 1991):

V. Long-term versus short-term orientation: the time of focus of people's efforts (past, present or future), it "refers to the extent to which a culture programs its members to accept delayed gratification of their material, social, and emotional needs."

Only added in 2010, in the third edition of *Cultures and Organizations: Software of the Mind* (HOFSTEDE, 2010), the sixth dimension focus on aspects of "happiness research" not covered by the previous dimensions. It is based on recent items of the World Values Survey, added with collaboration of Michael Minkov, a Bulgarian linguist and sociologist who was co-author of the third book (MINKOV; HOFSTEDE, 2011).

VI. Indulgence versus Restraint: basic human desires towards enjoying life. "Indulgence stands for a society that allows relatively free gratification" of these needs and desires, while restraint relates to a tighter control and regulation of gratification "by means of strict social norms."

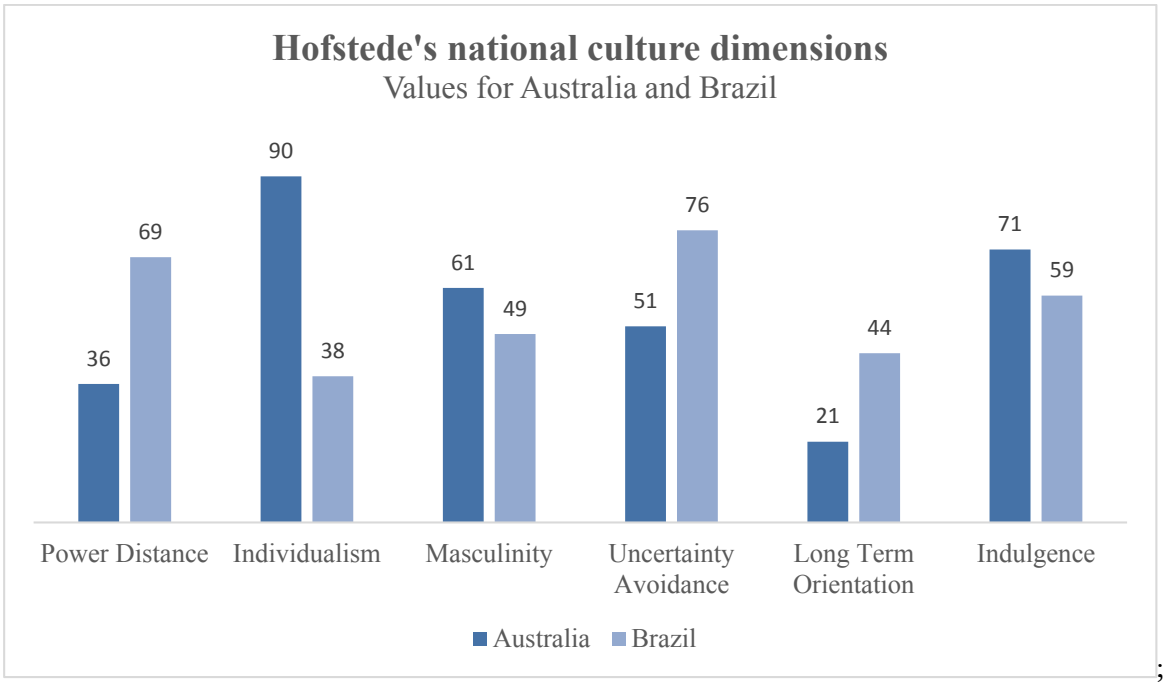

Figure 3 - Brazil's and Australia's national culture dimensions

Figure 3 displays the scores of both Australia and Brazil on all six dimensions of national culture (THE HOFSTEDE CENTRE). Australia scores low on Power Distance while Brazil scores fairly high. While Australia is a clear individualistic society, Brazil is more of a collectivist country. The Brazilian score on Masculinity and Long Term Orientation is very intermediate, as is Australian score for Uncertainty avoidance. Australia scores very low on Long Term Orientation, meaning it is a normative country. Moreover, both countries score high on Indulgence, reflecting a willingness on realizing impulses towards enjoying life.

5 METHODOLOGY

5.1 The survey

This paper shows the results of a web based survey developed through software called RedCap, in the University of Sydney, Sydney – NSW, Australia. The survey was adapted from the instrument used by Parker and Skitmore (2005) in the journal article *Project management turnover: causes and effects on project performance*. The complete survey is found in the Appendix A – SURVEY: PROJECT MANAGEMENT section.

The data collection phase was conducted in Australia, during the first semester of 2014. Responses were gathered by internet from project managers in different companies across several sectors of the Australian industry. One hundred and eight (108) completed surveys were collected, and the results are explained in detail in the Survey results section.

The survey is comprised of five sections, as detailed below.

Section 1: General

The first section asks for the participants' level of agreement with several general statements about project management importance, turnover impact on the project, and how it should be handled.

Section 2: Impact of project management turnover

The second section of the survey becomes more specific, and focus on explicit possible consequences derived from the project manager displacement event.

Section 3: Intention to turnover

The third section explores the respondent personal opinion on the importance of several factors around organizational environment, job design, and personal motives that would contribute to the desire to voluntary leave the project management role.

Section 4: Retention

The fourth section is similar to the previous one, but now it focus on the factors that would contribute positively to the motivation of the project manager to continue on their current role.

Section 5: Demographic information

The last section aims to understand the respondent background with questions around demographic information and professional experience, besides other questions about their individual motivation to leave their current role and / or company.

5.2 The analysis

The analysis of the respondents' answers was done with the software SPSS Statistics from IBM (Statistical Package for the Social Sciences), version 21, 64 bit edition.

First, the author conducted an initial exploratory analysis of the frequencies and distribution of the answers, considering the whole sample. A one-sample Kolmogorov-Smirnov test was run on the variables to test the distribution for normality. Then, Principal Component Analysis was used to analyze the relationship between the variables (questions).

Field (2009) teaches: "the existence of clusters of large correlation coefficients between subsets of variables suggests that those variables could be measuring aspects of the same underlying dimension." These dimensions, also called latent variables or factors, can be visualized as classification axes along which measurement variables can be plotted. And the coordinate of a variable along this axis is known as "factor loading".

The principal component analysis (PCA) was conducted on two sections of the survey (24 items combined), using oblique rotation, with the Oblimin method with Kaiser Normalization. Sampling adequacy was verified through the Kaiser-Meyer-Olkin measure, and test significance is reported in the following section with the Bartlett's test of sphericity (Chi square). Factor scores were then obtained through the Anderson-Rubin method, in order to guarantee that the factors did not correlate.

For factor analysis to work, there must be some relationships between variables, so Bartlett's measure was used to test the null hypothesis that the original correlation matrix is an identity matrix, in which case, all correlation coefficients would be zero (FIELD, 2009).

In order to compare the factor scores among different groups or respondents, it was conducted a provisional analysis to test for normality of distribution and homogeneity of variance, using Kolmogorov-Smirnov D test (K-S) and Levene test respectively. In addition, Shapiro-Wilks W test (S-W), which is actually more accurate, though less widely reported than the K-S test (FIELD, 2009), was used to confirm the distribution.

If the results of K-S or W-S tests are significant, then the null hypothesis of no difference between the observed data distribution and a normal distribution is rejected, indicating non-normal data distribution. If the Levene test result is significant, then the assumption of homogeneity of variance has been violated. This finding would alert us to the fact that the sample is not adequate to parametric tests, and that a non-parametric test should be used (FIELD, 2009).

Based on the provisional analysis, the author decided to run non-parametric tests, to verify existing differences among the groups of participants. Mann-Whitney U test was used to compare two independent groups, such as gender (male vs. female), and employment status (contractor vs. employee), and project size (small vs. medium). When there were multiple independent groups, the analysis was based on Kruskal-Wallis test. It was applied on age tiers, educational levels, and project management experience.

Main results are detailed in the following section. For the complete analysis output, please see the section Appendix C – Principal Component Analysis complete output

6 SURVEY RESULTS

6.1 The respondents

The majority of the respondents (71%) are male, suggesting that it is more common in Australia for men to follow the project management career. Male respondents have worked on average for 6.2 years in their current company, while female respondents worked 4.4 years on average.

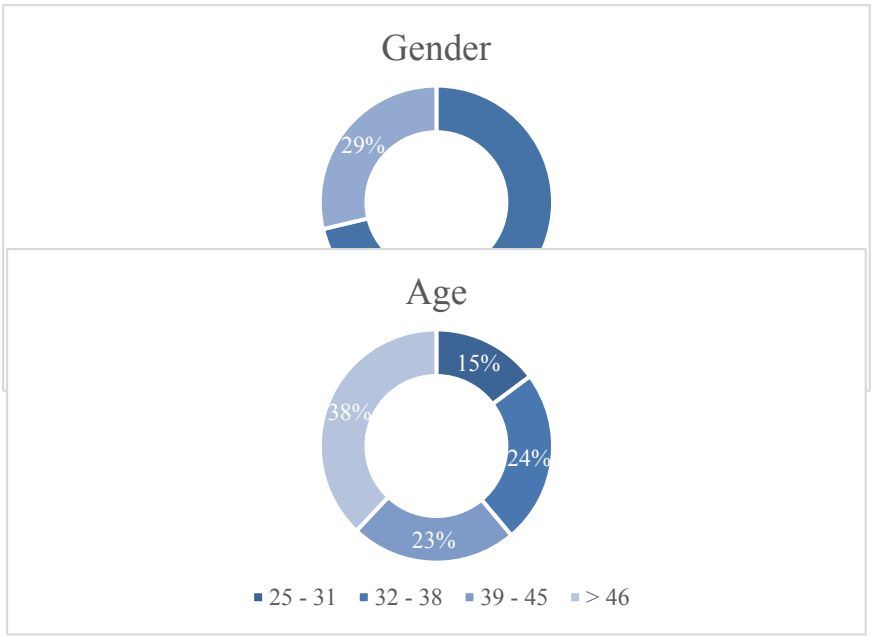

Chart 2 - Age distribution (% of the respondents)

About 38% of the respondents are over 46 years of age, with 23% between 39 and 45, and 24% between 32 and 38, while only 15% are between 26 and 31, with no participants under 25.

About three quarters (74%) of the respondents are actually employees, and 26% are working as contractors.

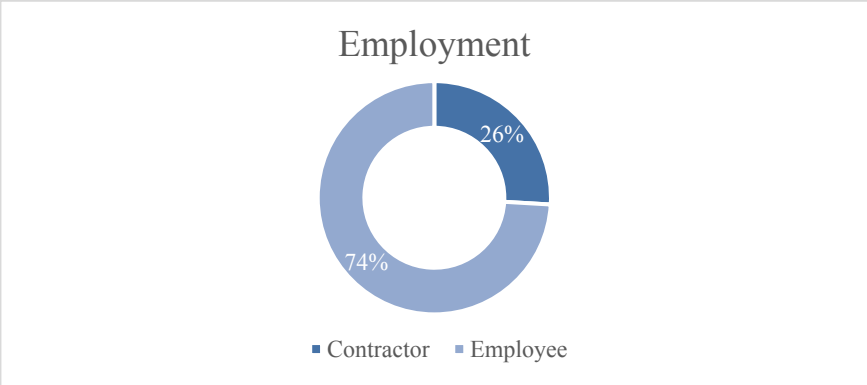

Chart 3 - Employment status distribution (% of the respondents)

46% of the respondents hold a Master Degree, and 38% hold an Undergraduate Degree, indicating the preference for project managers professionally qualified with postgraduate qualifications.

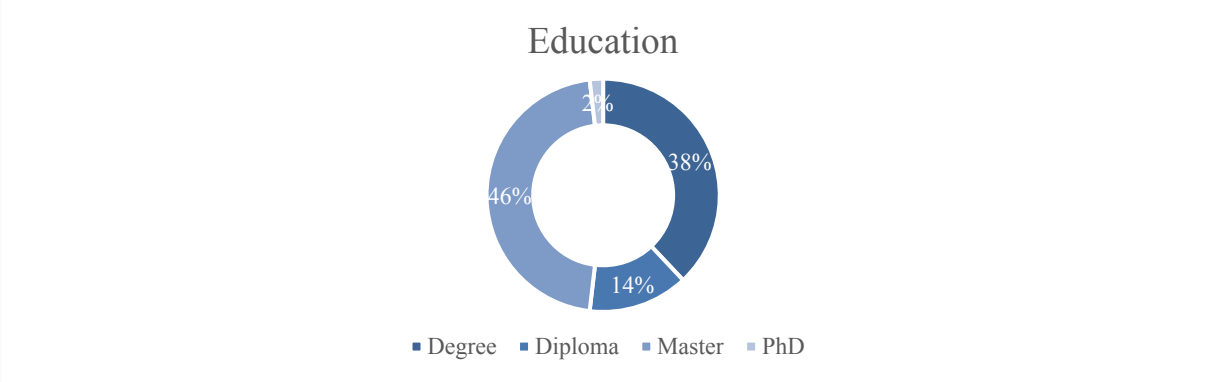

Chart 4 - Education levels distribution (% of the respondents)

Respondents are well distributed among distinct industry sectors, with half of respondents concentrated in construction, finance & insurance, and government companies.

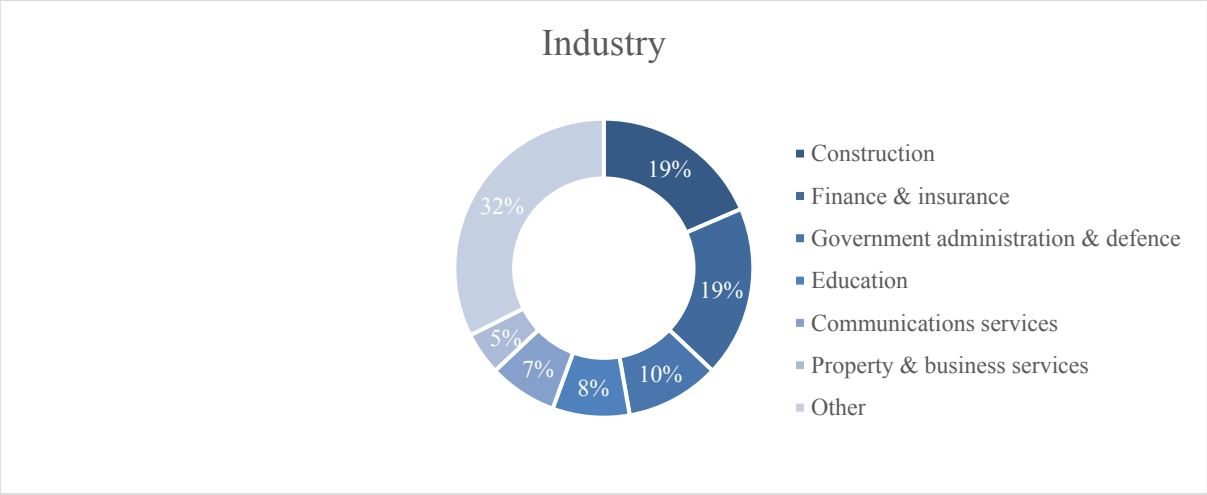

Chart 5 - Industry sector distribution (% of the respondents)

Over 72% of respondents have worked less than 5 years as project managers, with 33% having worked for 1 to 3 years, while 19% have worked less than 1 year and from 3 to 5 years. Less than 2% have more than 20 years of experience in projects, while 13% have worked from 5 to 10 and 10 to 20 years.

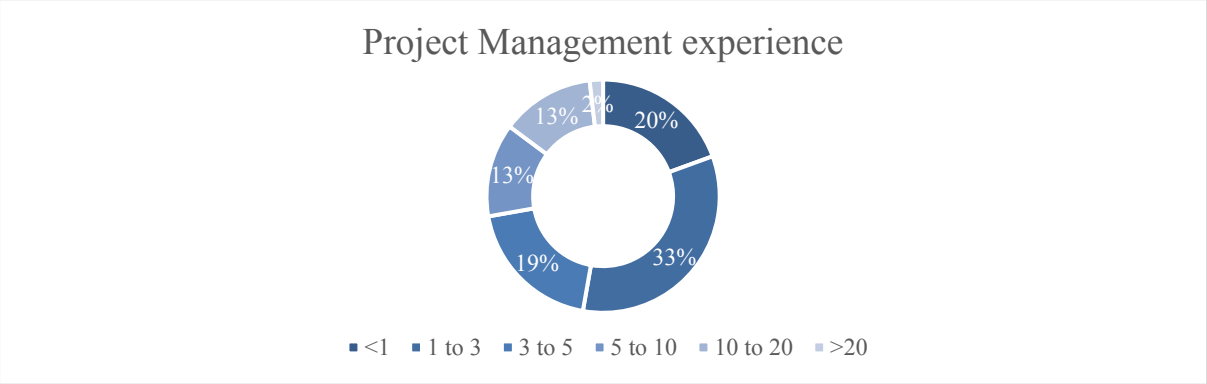

Chart 6 - Experience level distribution (% of the respondents)

Almost 42% of the respondents have a formal project management (PM) certification or qualification. Of those, about 47% hold a Prince2[1] certification, 76% hold a Project Management Professional (PMP) certification, and only 11% hold a Master Project Manager (MPM) certification. Almost half (49%) of those respondents hold other certifications and qualifications such as: Australian Institute of Project Management (AIPM), Certified Associate in Project Management (CAPM) from PMI, Management of Portfolios (MOP), Master Project Coach (MPC) from the IIPC[2], Managing Successful Programmes (MSP), Certified ScrumMaster (CSM), Information Technology Infrastructure Library (ITIL), and others.

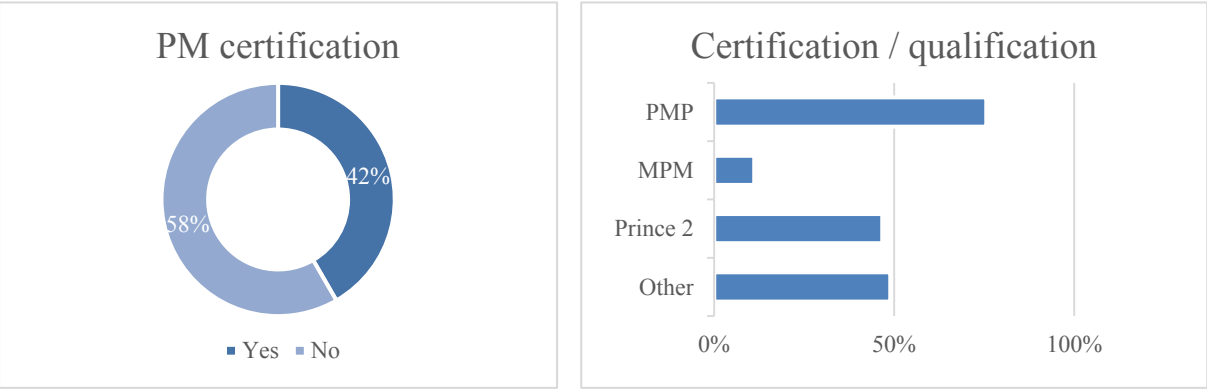

Chart 7 - Project Management certifications (% of the respondents)

[1] A well-known project management methodology. The name is an acronym for Projects In Controlled Environments, version 2
[2] International Institute of Project Coaching

About 78% of the respondents have managed an entire project from start to finish. Of the 22% of the respondents who had not managed all life cycle phases, about 63% have not managed the concept phase. 46% and 38% have not managed the planning and execution phases respectively, while over 58% have not managed the closeout phase.

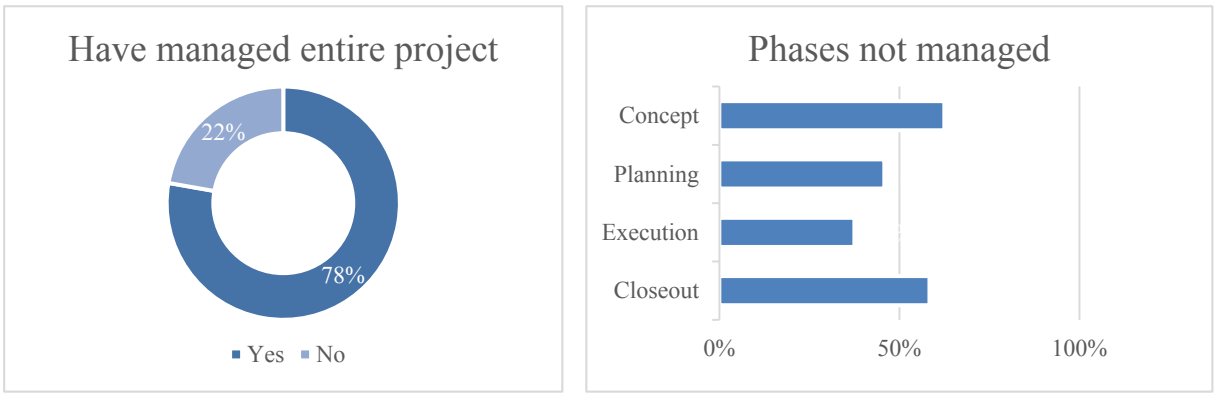

Chart 8 - Project life cycle phases (% of the respondents)

Most of the respondents work in projects with average duration of less than 2 years (61%), and around 38% work in projects with medium duration of 2 to 5 years long. Less than 1% of respondents work in projects that last longer than 5 years.

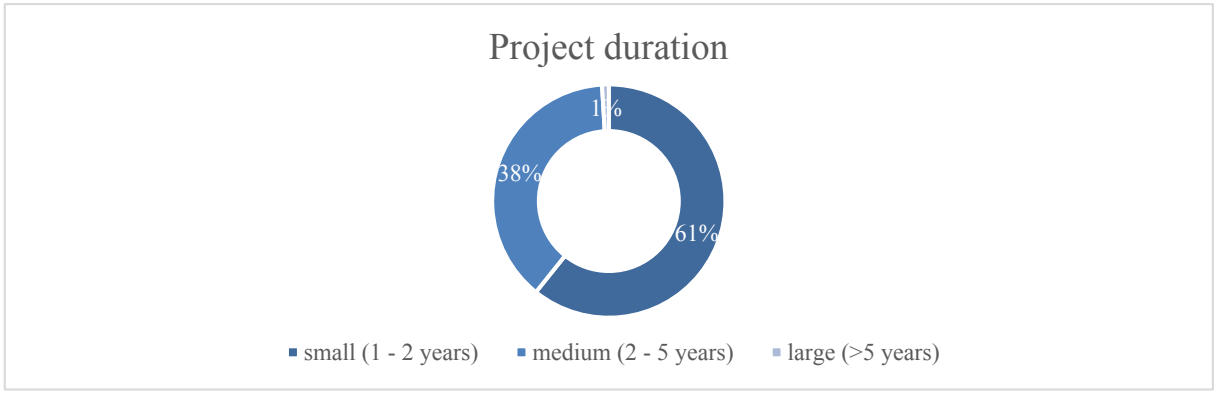

Chart 9 - Average project duration (% of the respondents)

6.2 General

The first section of the survey asked for the respondent's perceptions of same aspects of project management by measuring their level of agreement with several statements 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'. In order to compare the statements, the agreement responses were treated as scores and averaged, as shown in Table 1 – Statements about the importance of project managers

Table 1 – Statements about the importance of project managers

Statements	Mean	Std. Deviation
Project managers are critical to project success	4.69	.59
Project managers can significantly impact the performance of project team members	4.54	.68
Project management turnover disrupts project performance	4.11	.82
A project manager should see the project completely through its life cycle	4.07	.78
Leadership skills of project managers are more important than management skills	3.85	.96
Transferring from one project to another negatively impacts project productivity and performance	3.65	.83
Promoting someone from within the project team to the project management role is preferred	3.19	.89
New project managers are less committed to resolving inherited problems	2.64	.99
Project management turnover improves project performance	2.14	.95
Project management turnover has no effect on project performance	1.86	.88

The respondents showed some overall level of agreement with all statements, with an average grade of 3.47, 1.26 standard deviation.

The great majority of respondents agree that project managers are critical to project success (98%), and can significantly impact the performance of project team members (96%), as expected, since all the respondents were project managers themselves.

Despite the subjective nature of the question, the respondents' impression of the impact of project manager turnover on the project performance is very negative, with about 82% of the respondents agreeing that project management turnover disrupts project performance, while 8% agree that the event improves project performance, and only 6% agrees the event has no impact on performance at all.

Moreover, about 83% of respondents agree that a project manager should see the project completely throughout its life cycle, from conception to closeout, and 61% agree that transfers between projects negatively impacts project productivity and performance. Nevertheless, insider succession after the event is not a major common point of agreement. Only 36% agree it is better to promote someone from within the project to the manager position, while 21% disagree. In addition, 56% disagree that new managers are less committed to inherited problems, while only 26% agree.

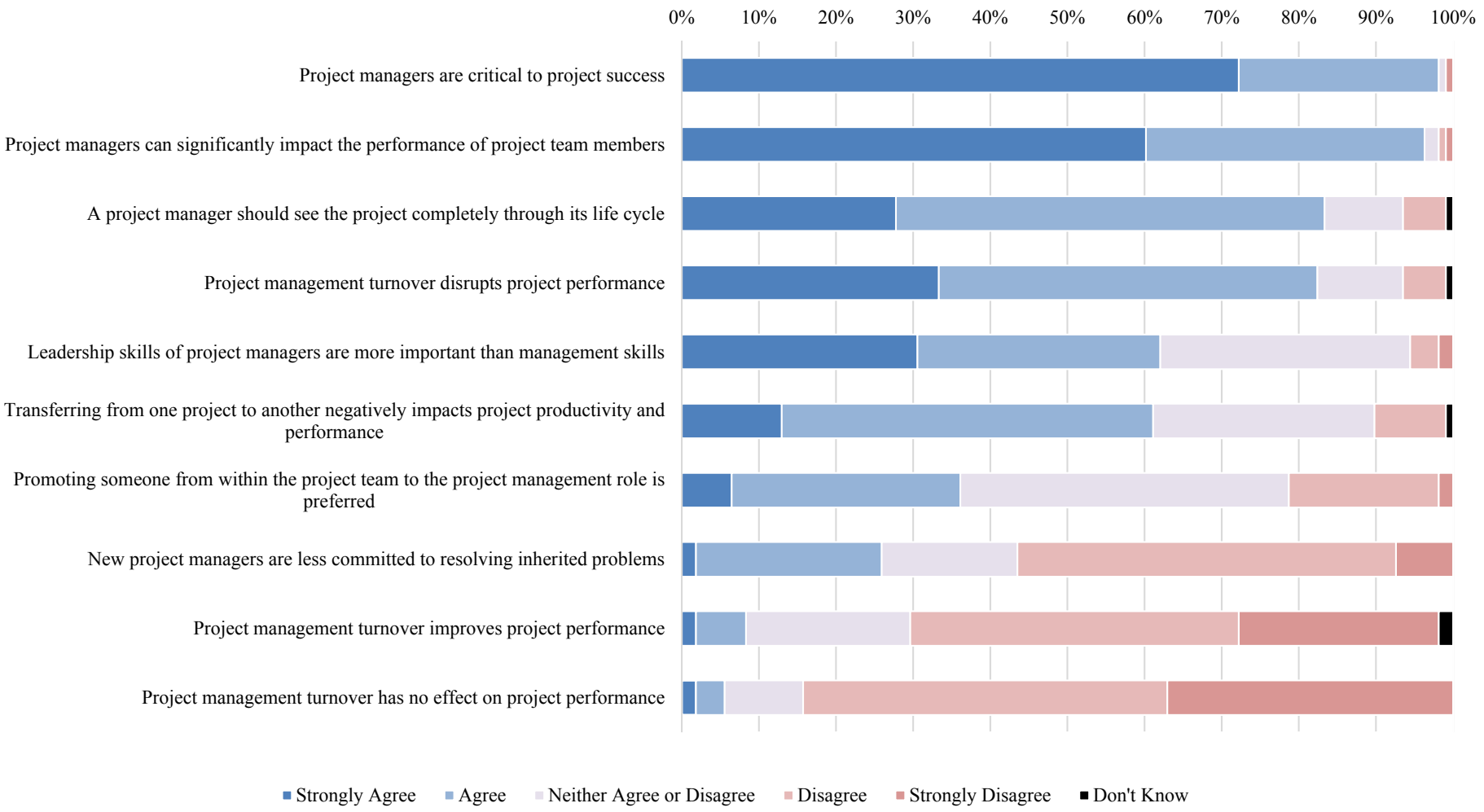

Chart 10 - Agreement level of respondents with general statements about project management

6.3 Impact of project management turnover

The second section intended to examine participants perceptions the contribution of the manager turnover to nine specific factors. Again, a five-point Likert scale was used, and 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'. For comparison sake, the responses were again averaged and ranked as listed in Table 2.

Table 2 – Degree of influence of project management turnover on specific factors

Factors	Mean	Std. Deviation
Communication breakdown	3.67	.93
Loss of focus and direction	3.51	.94
Difficulty in achieving project objectives	3.32	.93
Increased workload for others	3.31	.99
An increase in unresolved problems	3.27	1.06
Morale and motivational problems with project team members/staff	3.25	1.02
Loss of teamwork and cooperation	3.13	1.02
Chaos/disorganisation	2.93	1.06
Additional turnover among staff	2.88	1.04

The overall mean was 3.25 in the 1 to 5 scale (1.02 standard deviation), with 66% of responses in the 'to a moderate extent' and 'to a great extent' categories. The top two factors impacted by the turnover of the incumbent project manager were communication breakdown and loss of focus and direction.

The following five factors were rated pretty similarly, and fall in the medium tier: difficulty in achieving project objectives, increased workload for others, increase in unresolved problems, and morale and motivational problems with staff, and loss of teamwork and cooperation.

The lowest rated factors were: chaos and disorganization, and additional turnover among staff.

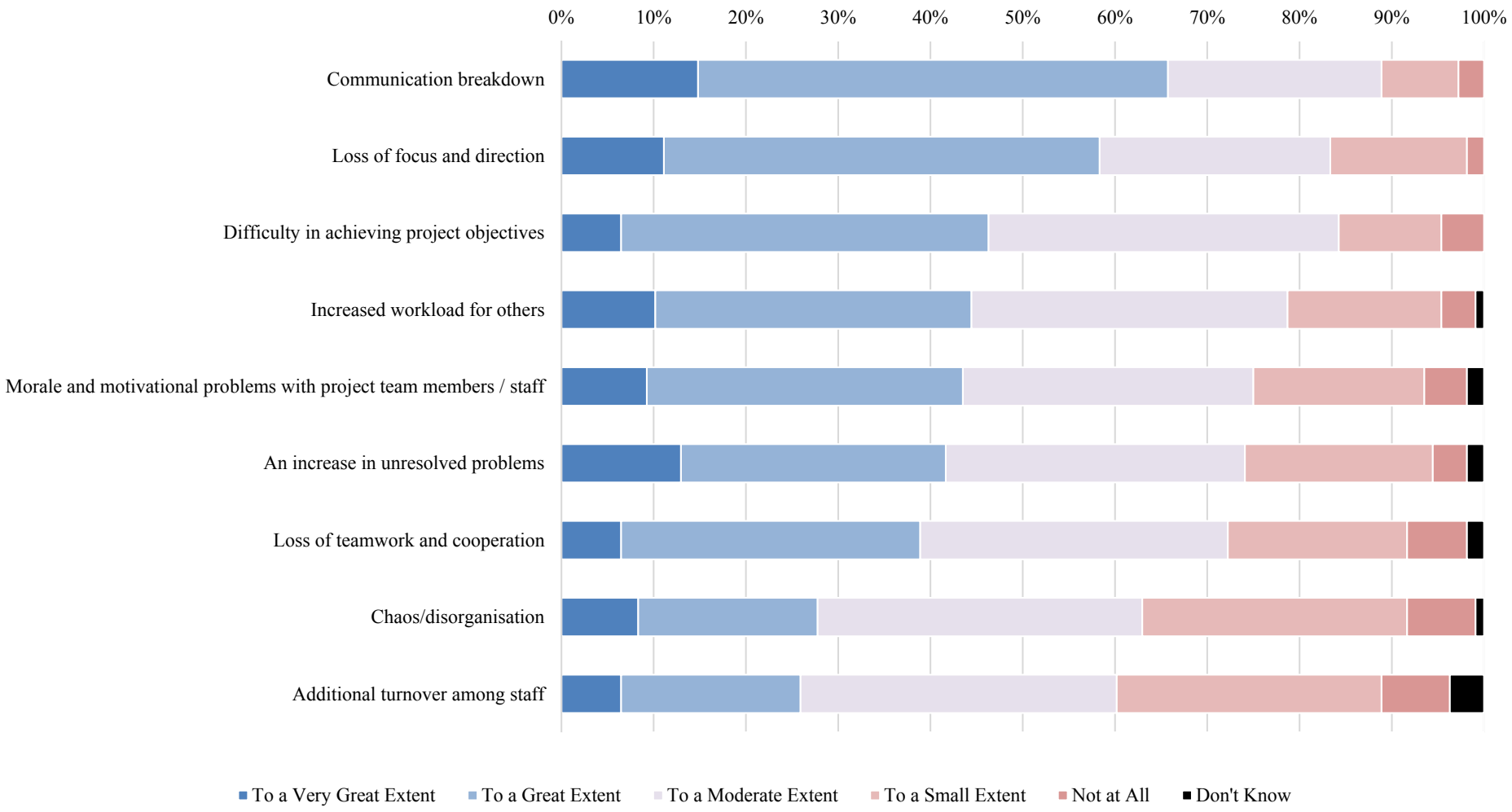

Chart 11 - Contribution level of project management turnover to each consequence

6.4 Intention to turnover

This section explores the degree to which 13 individual factors would cause the respondents to leave their current role. The answers were measured 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'. The factors were ranked in Table 3 below, and the average score for all factors was 3.57, 1.08 standard deviation.

Table 3 - Factors contributing to the intention to turnover

Factors	Mean	Std. Deviation
Ethics/integrity	4.14	1.02
Promotion	3.92	1.02
Better career opportunity	3.78	1.00
Unrealistic performance expectations	3.74	.94
Ineffective manager	3.72	1.04
Feeling unappreciated	3.64	.96
Professional stagnation/lack of development	3.56	1.04
Politics and infighting	3.56	1.07
Poor work/life balance	3.48	1.09
Lack of advancement opportunities	3.44	1.08
Lack of teamwork and cooperation	3.44	1.01
Lack of resources/staff	3.09	1.04
Poor performing/failing project	2.88	1.12

The highest rated factor is ethics and integrity, reflecting project managers concerns with these values employed both within the organization and the project team. The second factor in the rank is promotion, indicating the respondents are also concerned about their career plan, reaffirming the literature on problems with career development in project based organizations (Turner et al., 2008).

After promotion, the two highest rated factors are better career opportunity and unrealistic performance expectations, with over 65% and 61% of responses in the 'great extent' and 'very

great extent' categories, respectively. Ineffective manager, with 3.72 average grade rate, follows as the last in the top five.

As shown in Table 3, the following factors were rated rather similarly: feeling unappreciated, professional stagnation/lack of development, politics and infighting, poor work/life balance, lack of advancement opportunities, lack of teamwork and cooperation.

The lowest ranked factors were lack of resources/staff, and poor performing/failing project, indicating that the conditions of the project would have a low influence on the motivation of project managers to leave their position. Still, 36% and 31% of responses are in the 'to a moderate extent' category for each factor, respectively.

When asked if they have considered moving to another project in the same company in the last year, about 43% of the participants answered yes. Only 34% had considered leaving their position to another non-related to project management in the same company. However, 66% have considered leaving their companies in the same period.

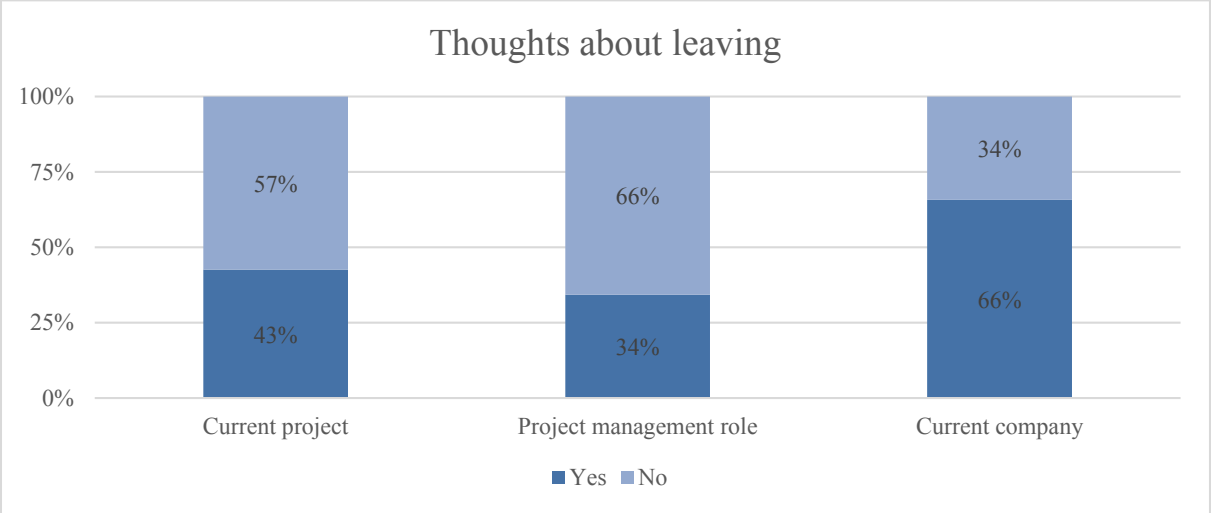

Chart 12 - Respondents that have considered leaving in the last 12 months (% of respondents)

48% of female respondents have considered moving to another project in the last twelve months, while only 40% of their male counterparts have considered such a move. 39% of the female respondents, and 32% of the male respondents, had considered moving into a non-project management position. Moreover, about 71% of female respondents thought about leaving their current companies, while 64% of male respondents did.

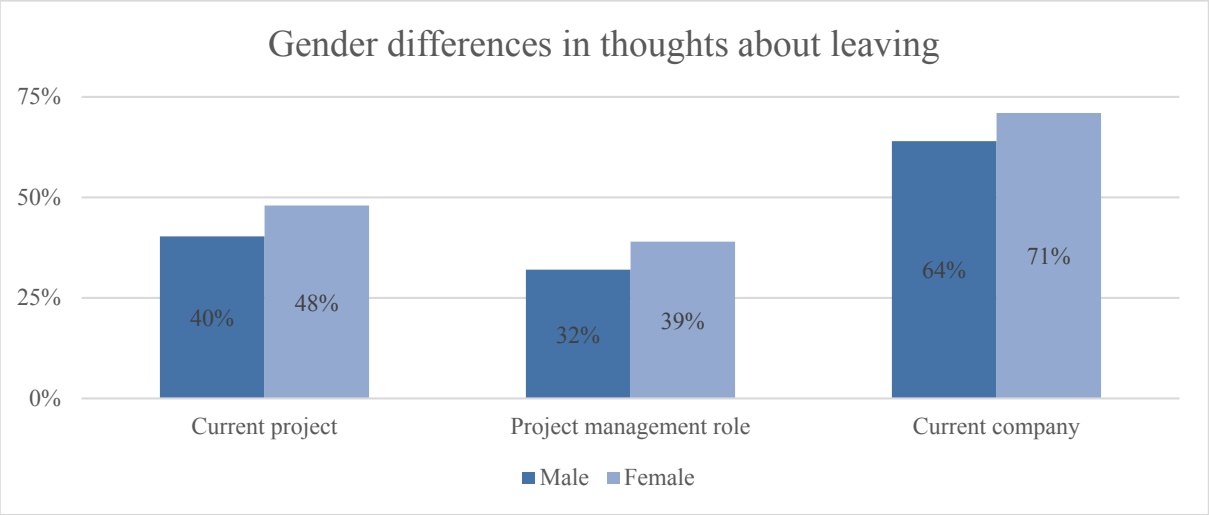

Chart 13 - Male and female respondents that have considered leaving in the last 12 months (% of respondents)

Respondents within the 39 to 45 years old interval had the highest proportion of having considering leaving, not only their current projects, but also their project management roles and their current companies. The older participants with more than 46 years of age, had the lowest response rate for having considered leaving their project management role or their companies, but not for moving to another project within the organization.

Half of the youngest participants from 25 to 31 years old had considered moving to another project, while only 31% of the slightly older ones with 32 to 38 years old had considered the move. Nevertheless, the latest group had a higher proportion of the desire to leave the organization than the younger group.

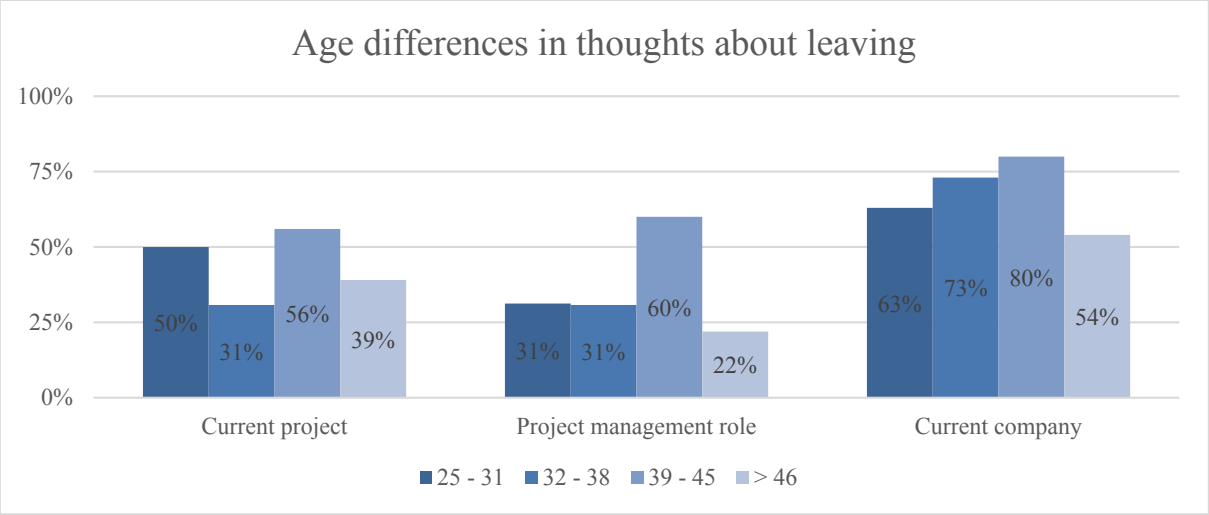

Chart 14 – Age of respondents that have considered leaving in the last 12 months (% of respondents)

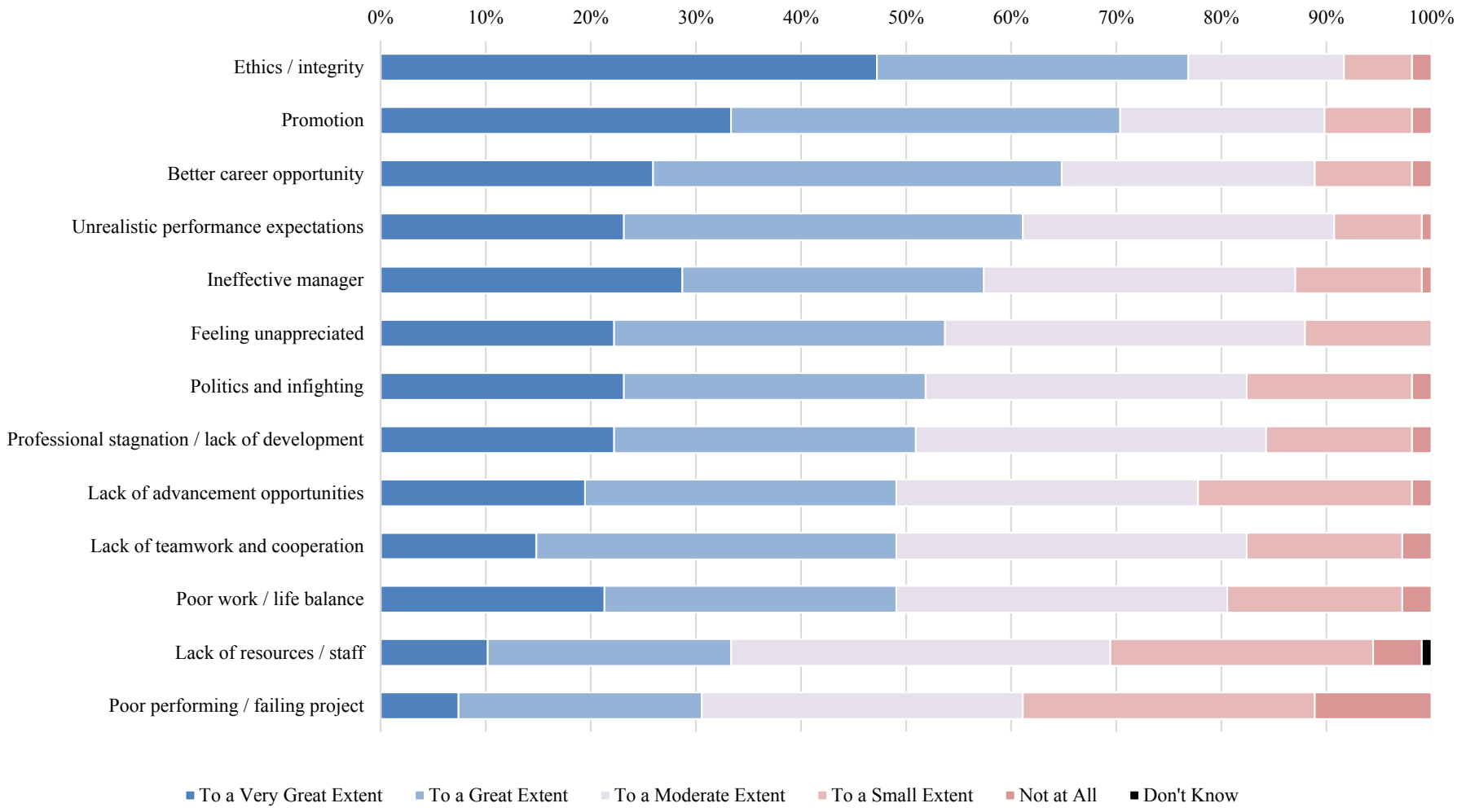

Chart 15 - Factors' contribution to the motivation to leave the project manager position

6.5 Retention

The fourth section of the survey is focused on the factors the companies should focus on to effectively retain their project management personnel. Respondents were asked to indicate the extent to which the 11 factors ranked in Table 4 influence their decision to stay in their current job. The same Likert scale was used as before to average and rank the factors for comparative purposes.

The section obtained the highest average mean of 3.79 (0.99 standard deviation), indicating a large extent of agreement by the respondents that the factors presented below would motivate them to keep their current role.

Table 4 - Factors minimizing turnover intention

Factors	Mean	Std. Deviation
Ethics/Integrity	4.01	1.03
Effective manager	3.93	.96
Challenging work	3.93	.77
Development and growth opportunities	3.88	1.03
Having organizational influence/authority	3.86	.92
Salary/benefits	3.83	.94
Recognition	3.81	.97
Advancement opportunities	3.81	1.05
Loyalty	3.65	1.00
Being part of a team	3.65	.97
Job security	3.35	1.10

Again, the issue of ethics and integrity came up as the highest rated factor in the range, with average score of 4.01, slightly lower than in the last section (4.12). With the first factor, the top 3 is comprised of having an effective manager and challenging work, both with average mean of 3.93, reflecting the great importance of direct supervision and job design.

The following factors are in the middle cluster: development and growth opportunities, having organizational influence/authority, salary/benefits, recognition, and advancement opportunities.

The least rated factors that would retain project managers were loyalty to the organization, being part of a team, and job security, although they still were rated by 63%, 60% and 48% respectively in the ‘great extent’ and ‘very great extent’ categories.

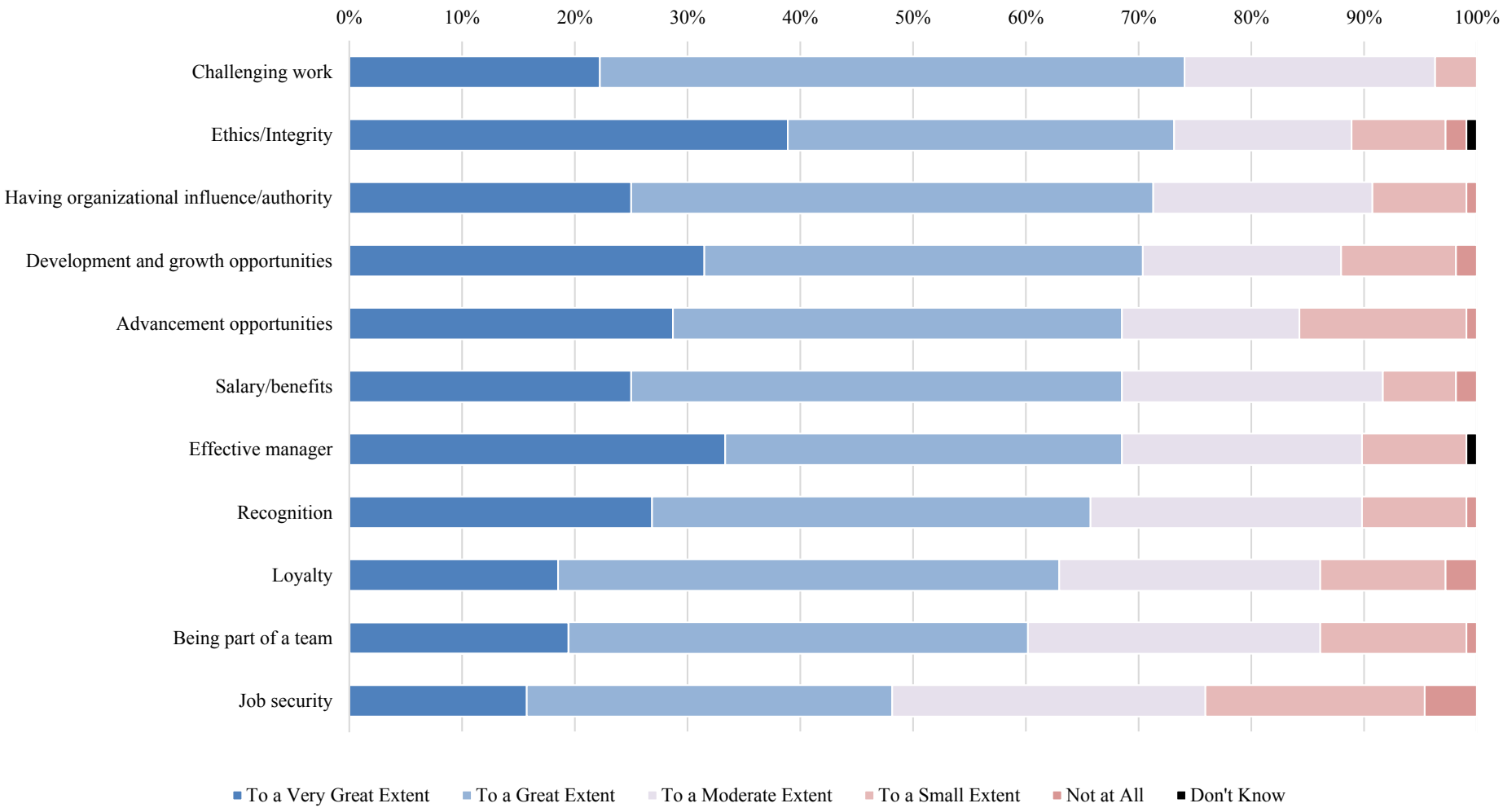

Chart 16 - Extent level of contribution from each factor to keep the project manager position

7 DATA ANALYSIS

7.1 Principal Component Analysis

Below are the details of two Principal Component Analysis (PCA) conducted on two sections of the survey. The factor loadings for each item on the dimensions suggested by the analysis are reported from the pattern matrix, which reflects the unique contribution of each variable to the factor. The shared variance is reported in the structure matrix, showing the relationship between different dimensions. Please refer to the structure matrix in the Appendix C – Principal Component Analysis complete output section. From this point on, the concept of dimension (as a factor from the PCA) is going to be referred as "component".

7.1.1 Components of factors driving turnover intention

A PCA was conducted on the 13 items of the third section of the survey, using oblique rotation with the Oblimin method with Kaiser Normalization. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the analysis, KMO = .809 ('great' according to FIELD, 2009), and all KMO values for individual items were > .68, which is above Field's acceptable limit of 0.5 (FIELD, 2009). Bartlett's test of sphericity χ^2 (78) = 559.054, $p < .001$, indicated that correlations between items were sufficiently large for this analysis.

An initial analysis was run to obtain eigenvalues for each component in the data. Three components had eigenvalues over Kaiser's criterion of one, and in combination explained 60% of the variance. The scree plot showed an inflexion that would justify retaining only two components. However, given the satisfactory sample size, following Kaiser's criterion, three components were retained in the final analysis.

Table 1 shows the Pattern Matrix of the PCA. Factor loadings converged in 20 iterations of the Oblimin rotation method. The items that cluster on the same components suggest that: component one represents factors around the organizational culture and job design; component two is centered on career and personal development; and component three corresponds to interpersonal relationships concerns. From this point on, component one is going to be called IC1, standing for Intention Component number 1, while the second component will be IC2 and so on.

All components' subscales of the survey's third section had high reliabilities. Both first and second scales show Cronbach's α = .78. The third subscale had a slightly lower Cronbach's α = .76, still highly reliable (FIELD, 2009).

Table 5- Summary of the exploratory factor analysis results for the third section of the Project Management turnover survey (n = 108)

	Rotated factor loadings		
Item	**IC1**	**IC2**	**IC3**
Poor work / life balance	**.80**	.02	.09
Ethics / integrity	**.69**	.24	.21
Unrealistic performance expectations	**.68**	-.03	-.23
Politics and infighting	**.60**	-.10	-.27
Lack of resources / staff	**.52**	-.13	-.25
Poor performing / failing project	**.42**	.24	-.20
Better career opportunity	.09	**.89**	.06
Promotion	.07	**.88**	.05
Lack of advancement opportunities	-.12	**.61**	-.45
Professional stagnation / lack of development	.19	**.39**	-.39
Feeling unappreciated	-.08	.23	**-.80**
Lack of teamwork and cooperation	.23	-.03	**-.73**
Ineffective manager	.25	-.13	**-.62**
Eigenvalues	4.99	1.79	1.02
% of variance	38.37	13.78	7.85
Cronbach's alpha	.78	.78	.76

7.1.2 Components of factors minimizing turnover intention

Another PCA was conducted on the 11 items of the fourth section of the survey, also using oblique rotation with the Oblimin method with Kaiser Normalization. The Kaiser-Meyer-Olkin measure again verified the sampling adequacy for the analysis, with KMO = .836 ('great' rate according to FIELD, 2009), and all KMO values for individual items were > .72, which is well above the Field's acceptable limit of 0.5 (FIELD, 2009). Bartlett's test of sphericity χ^2 (55) = 652.201, $p < .001$, indicated that correlations between items were sufficiently large for this analysis.

Initial eigenvalues one more time were obtained for each component in the data. This time, only two components had eigenvalues over Kaiser's criterion of one, and in combination they both explained 62% of the variance. The scree plot was slightly ambiguous and showed inflexions that would justify retaining one or four components. Examining the variables, again, the author decided to follow Kaiser's criterion, so two components were retained in the final analysis.

The rotation converged in 11 iterations of the Oblimin method. Table 6 shows the factor loadings in the pattern matrix. Please, refer to the Structure Matrix in the Appendix C – Principal Component Analysis complete output section. The items clustering on component 1 suggest that it represents social values and work characteristics, while component 2 is comprised of individual rewards and personal growth factors. From this point, the first component will be called RC1, standing for Retention Component number 1, while the second will be RC2.

Both components' subscales of the Retention Section in the survey had high reliabilities, with Cronbach's $\alpha = .85$ for the first, and .87 for the last, both higher than those in the previous section (Field, 2009).

Table 6 - Summary of the exploratory factor analysis results for the fourth section of the Project Management turnover survey (n = 108)

	Rotated factor loadings	
Item	**RC1**	**RC2**
Loyalty	**.91**	.25
Having organizational influence / authority	**.69**	-.16
Challenging work	**.69**	.23
Being part of a team	**.63**	-.32
Ethics / Integrity	**.58**	-.14
Effective manager	**.51**	-.37
Job security	**.51**	-.35
Salary / benefits	-.17	**-.89**
Advancement opportunities	.08	**-.86**
Development and growth opportunities	.25	**-.72**
Recognition	.19	**-.68**
Eigenvalues	5.64	1.20
% of variance	51.26	10.94
Cronbach's alpha	.85	.87

7.2 Groups comparison

7.2.1 Gender

IC1 factor scores by male respondents (Mdn = .16) did not differ significantly from female respondents (Mdn = -.18), U = 1143.50, z = -.24, *ns*, r = -.02. IC2 factor scores also did not seem to be affected by gender, with Mdn = .15 for males, and Mdn = .21 for females, U = 1045.50, z = -.91, *ns*, r = -.09.

However, IC3 factor scores by male respondents (Mdn = .12) differed significantly from female respondents (Mdn = -.59), U = 888.50, z = -1.99, p < .05, r = -.19.

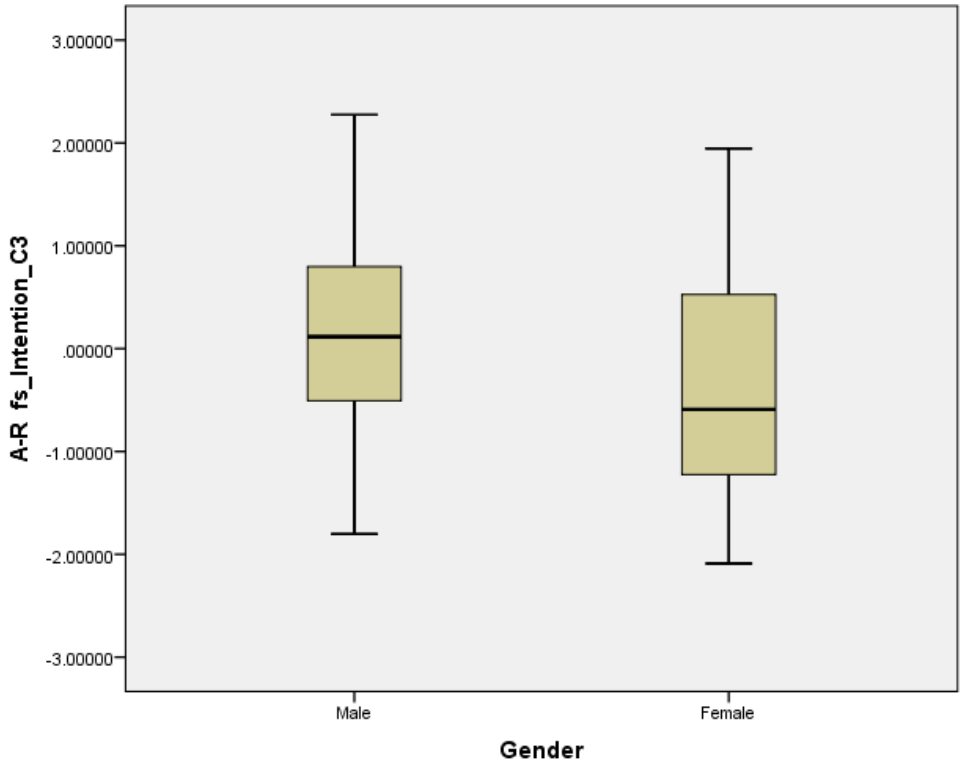

Chart 17 - Gender differences in factor scores for IC3

Moreover, RC1 factor scores by male respondents (Mdn = -.05) were significantly lower than female respondents (Mdn = .49), U = 859.00, z = -2.19, p < .05, r = -.21. On the other hand, RC2 factor scores by male respondents (Mdn = .02) were significantly higher than female respondents (Mdn = -.68), U = 700.00, z = -3.28, p < .01, r = -.32.

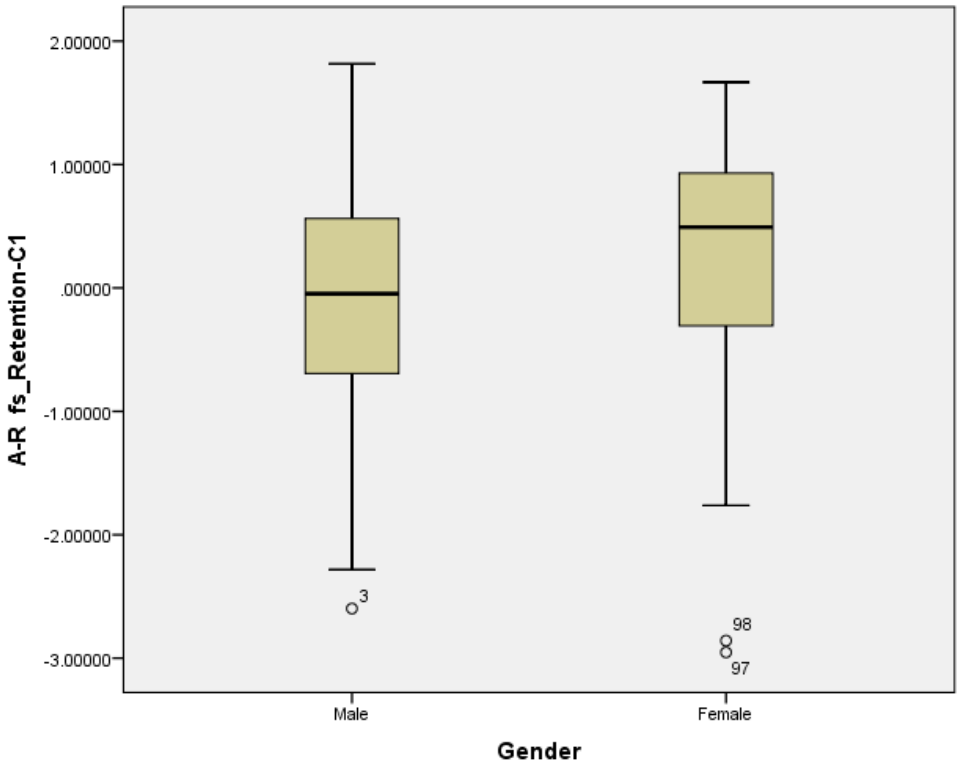

Chart 18 - Gender differences in factor scores for RC1

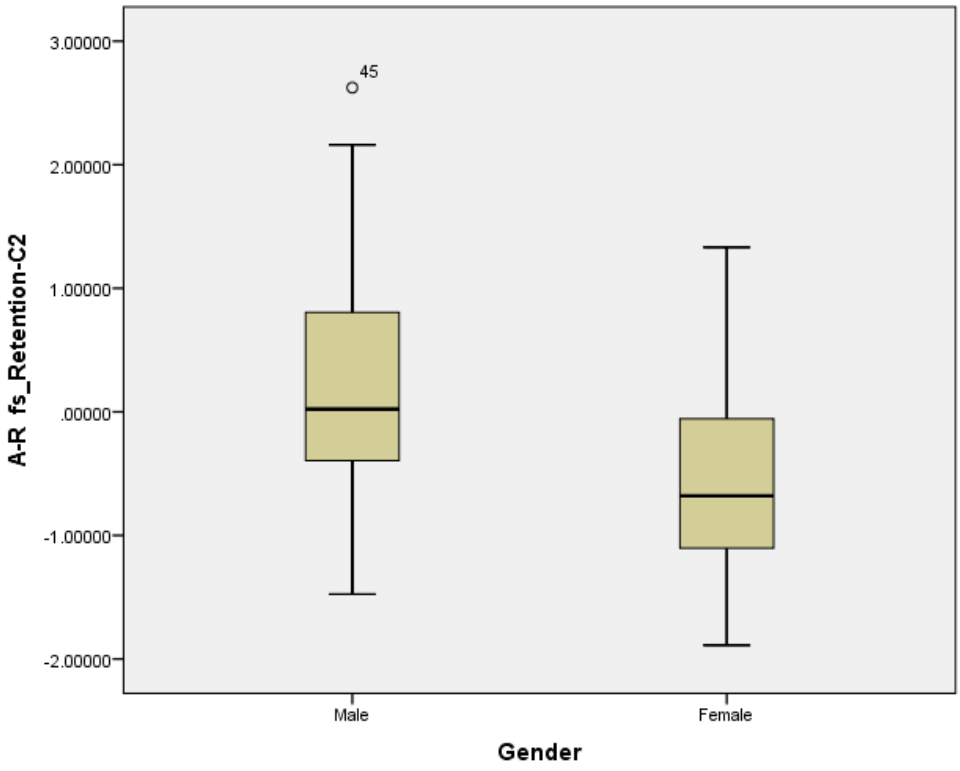

Chart 19 - Gender differences in factor scores for RC2

7.2.2 Employment status

Apparently, IC1 factor scores by contractor respondents (Mdn = .24) did not differ significantly from employee respondents (Mdn = .60), U = 907.00, z = -1.24, *ns*, r = -.12.

Nevertheless, IC2 factor scores by contractor respondents (Mdn = -.35) differed significantly from employee respondents (Mdn = .21), U = 758.00, z = -2.31, p < .05, r = -.22.

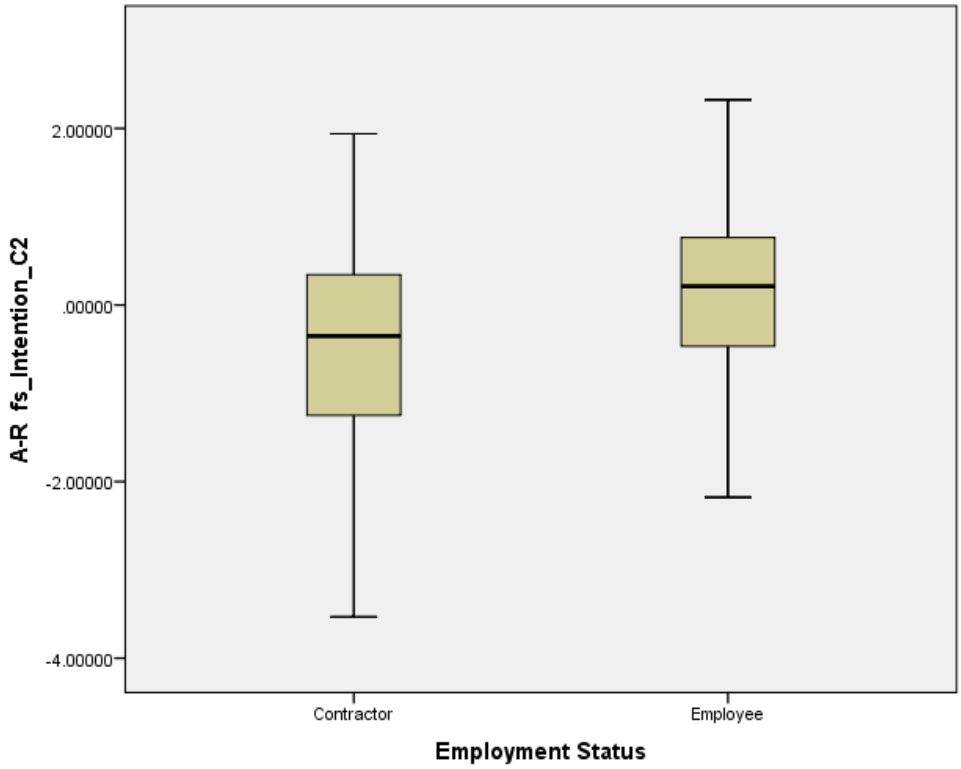

Chart 20 - Employment status differences in factor scores for IC2

Neither IC3 factor scores by contractor respondents (Mdn = .14) differed significantly from employee respondents (Mdn = -.07), U = 1077.00, z = -.02, *ns*, r = .00, nor RC1 factor scores, Mdn = .17 for contractors and employees, U = 1083, z = -.16, *ns*, r = -.02.

However, RC2 factor scores by contractor respondents (Mdn = .14) differed significantly from employee respondents (Mdn = -.17), U = 813.00, z = -2.08, p < .05, r = -.20.

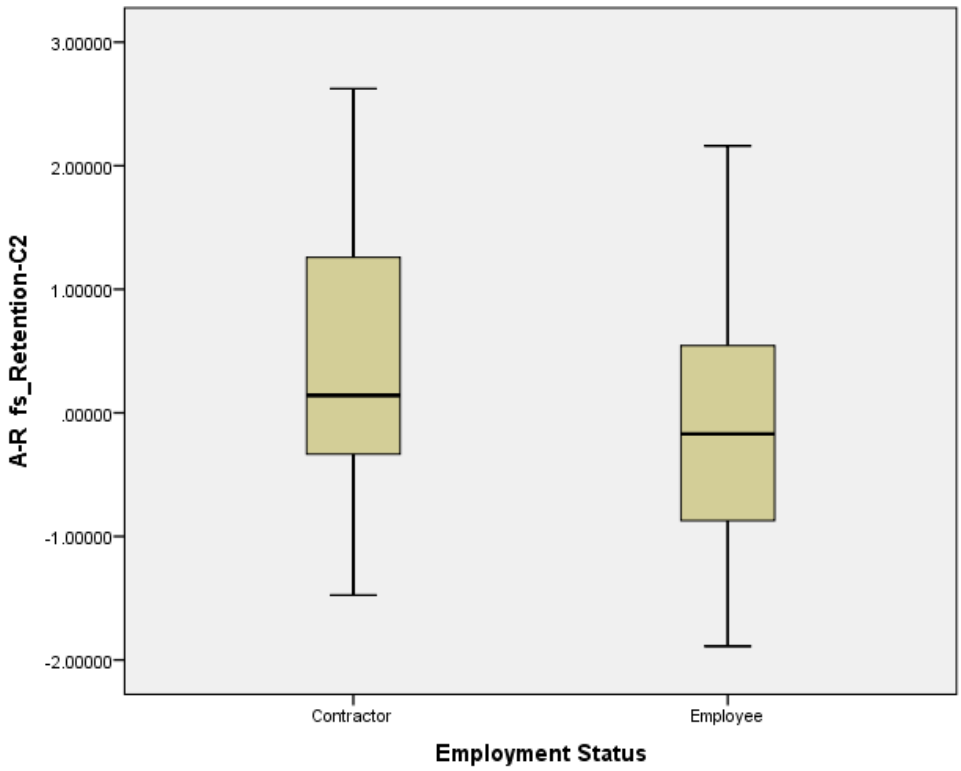

Chart 21 - Employment status differences in factor scores for RC2

7.2.3 Project size

Since only one respondent from the sample chose the large project size option (longer than five years), the author decided to conduct a Mann–Whitney test on the factor scores to verify differences between project managers working in small projects (up to two years) and the ones working on medium projects (from two to five years of duration).

IC1 factor scores by project managers working on small projects (Mdn = .15) did not differ significantly from the ones working on medium projects (Mdn = .09), U = 1295.00, z = -.03, *ns*, r = .00.

IC2 factor scores by project managers working on small projects (Mdn = .21) did not differ significantly from the ones working on medium projects (Mdn = .14), U = 1082.00, z = -1.44, *ns*, r = -.14.

IC3 factor scores by project managers working on small projects (Mdn = -.20) did not differ significantly from the ones working on medium projects (Mdn = .20), U = 1122.00, z = -1.18, *ns*, r = -.11.

RC1 factor scores by project managers working on small projects (Mdn = .20) did not differ significantly from the ones working on medium projects (Mdn = .17), U = 1284.50, z = -.18, *ns*, r = -.02.

Finally, RC2 factor scores by project managers working on small projects (Mdn = -.25) differed significantly from the ones working on medium projects (Mdn = .24), U = 979.50, z = -2.18, p < .05, r = -.21.

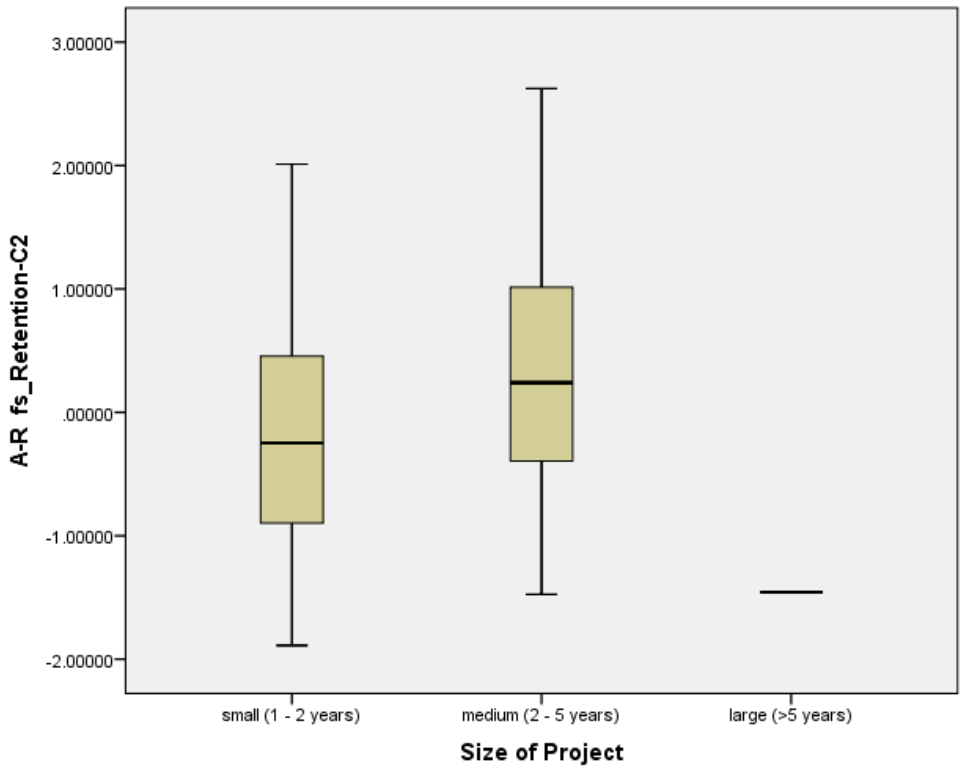

Chart 22 - Project size differences in factor scores for RC2

7.2.4 Age

According to the Kruskal-Wallis test results, the age of the respondents did not seem to significantly affect factor scores for IC1, H (3) = 1.33, *ns*; IC3, H (3) = 4.82, *ns*; and RC1, H (3) = .10, *ns*.

However, IC2 factor scores differed significantly among project managers from the different age intervals, H (3) = 8.42, p < .05. In addition RC2 factor scores differences were highly significant, H (3) = 11.90, p < .01.

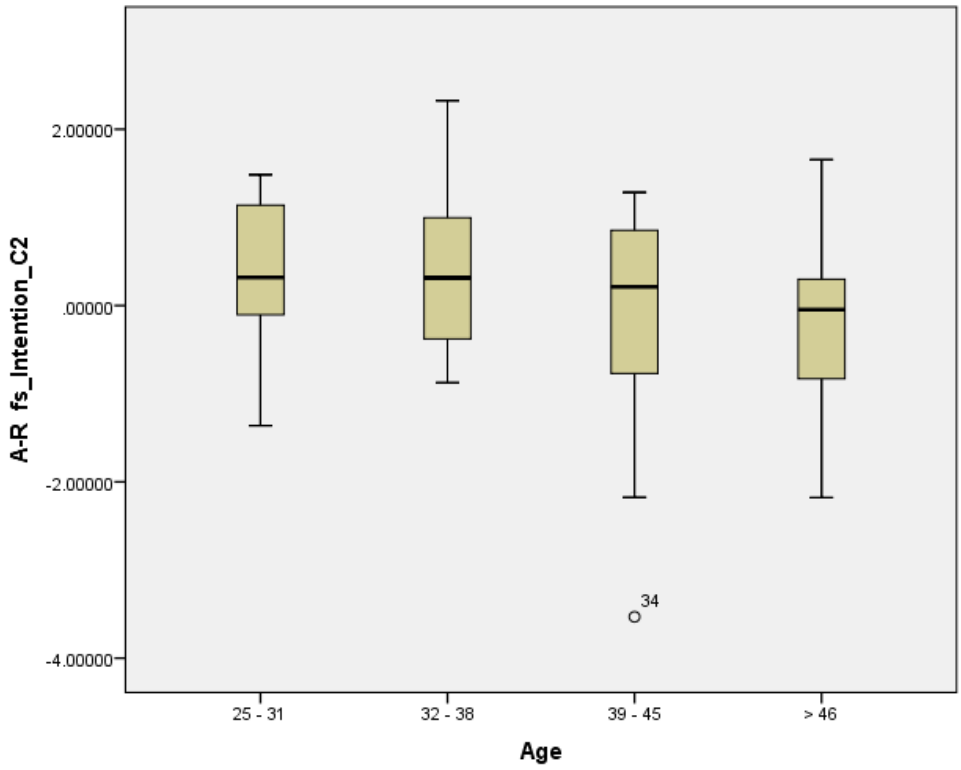

Chart 23 - Age differences in factor scores for IC2

Mann–Whitney tests were used to follow up these findings, and a Bonferroni correction was applied and so all effects are reported at a .167 level of significance.

It appeared that IC2 factor scores were not significantly different when compared project managers within the younger age interval of 25 to 31 years old, to the older tiers of 32 to 38 years old (U = 203.00, r = -.02), 39 to 45 years old (U = 161.00, r = -.16), and more than 45 years old (U = 207.00, r = -.27).

Moreover, RC2 factor scores were also no different when compared project managers within the younger age interval of 25 to 31 years old, to the older tiers of 32 to 38 years old (U = 201.00, r = -.03), 39 to 45 years old (U = 174.00, r = -.11). Nevertheless, when compared to respondents in the oldest age tier, i.e. older than 46 (Mdn = .40), factor scores were significantly lower for the youngest generation (Mdn = -.52, U = 177.00, r = -.35).

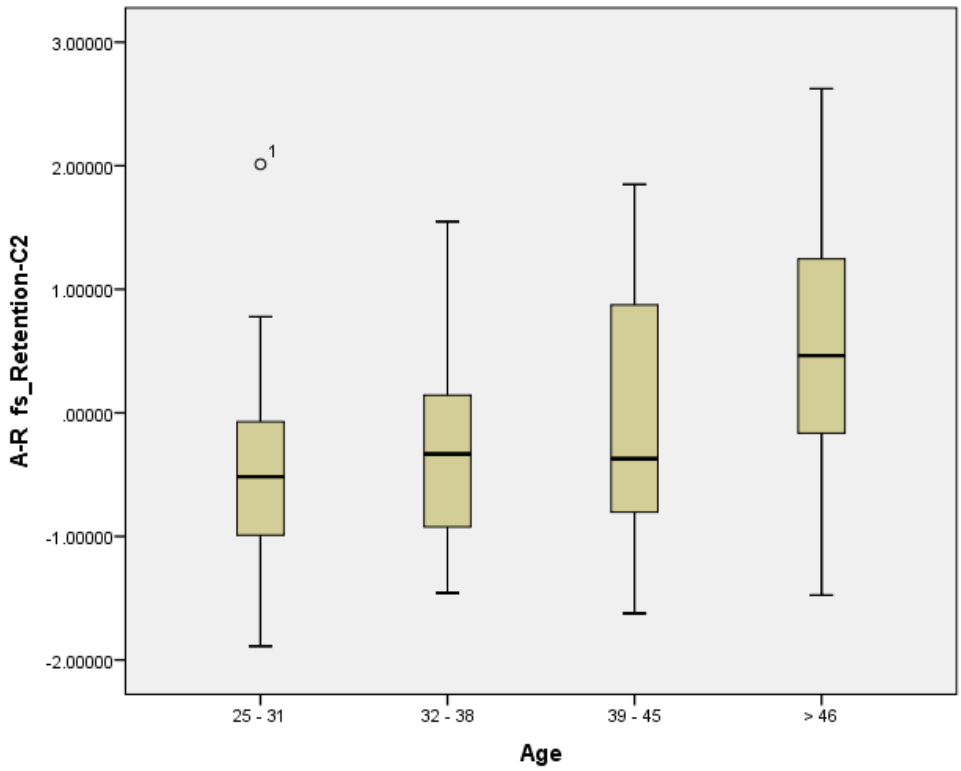

Chart 24 - Age differences in factor scores for RC2

7.2.5 Educational level

None of the components' factor scores differed significantly among project managers from different educational levels. Kruskal-Wallis test results were H (3) = 2.28 for IC1, H (3) = .34 for IC2, H (3) = 4.05 for IC3, H (3) = .93 for RC1, and H (3) = 2.07 for RC2, all *ns.*

7.2.6 Professional experience

The respondent's professional experience did not significantly affect factor scores for IC1, H (5) = 5.41, *ns*; IC3, H (5) = 5.00, *ns*; and RC1, H (5) = 6.77, *ns.* However, IC2 scores significantly increased with professional experience H (5) = 24.08, $p < .001$, while RC2 scores decreased the higher the experience level, H (5) = 11.52, $p < .05$.

Mann–Whitney tests were used to follow up this finding, and a Bonferroni correction was applied and so all effects are reported at a .167 level of significance.

It appeared that IC2 factor scores were rated no different by project managers with experience level from 3 to 5 years when compared to more experienced managers with 5 to 10 years (U = 82.00, r = -.37). However, when compared with more experienced professionals, with 10 to 20

years of experience (U = 46.00, r = -.57) and more than 20 years (U = .00, r = -.48), factor scores were significantly higher, $p < .01$.

On the other hand, factor scores for RC2 did not seem to be affected by professional experience in project management, when comparing professionals with 3 to 5 years of experience with managers with 5 to 10 years (U = 141.00, r = -.03), with 10 to 20 years (U = 79.00, r = -.39), and more than 20 years (U = 2.00, r = -.43).

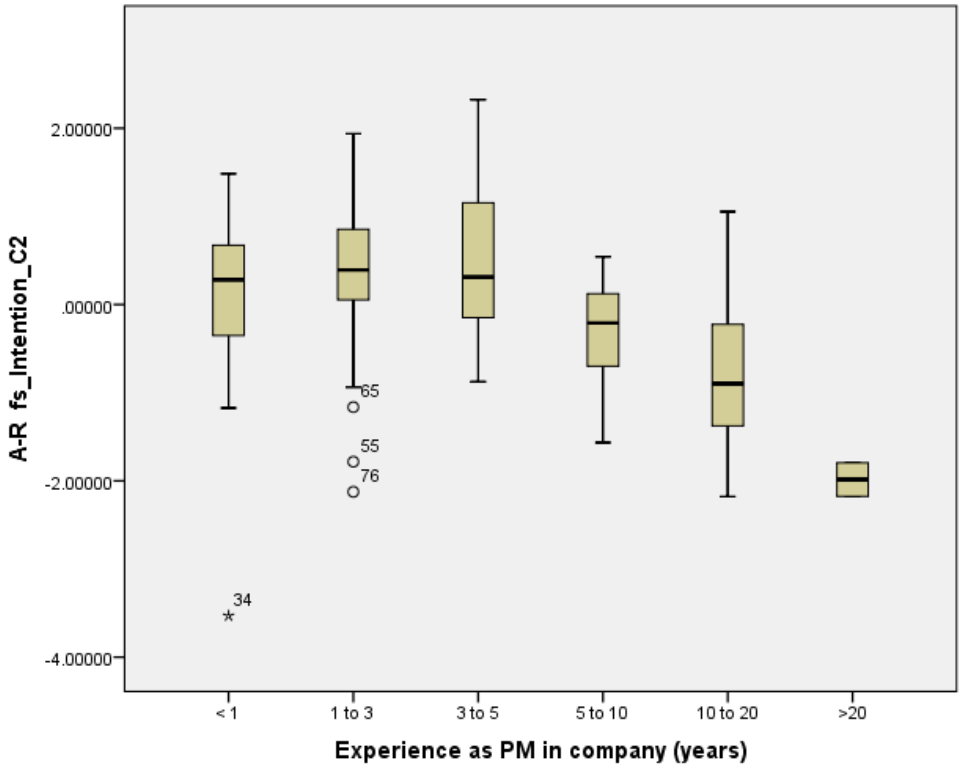

Chart 25 - Experience level differences in factor scores for IC2

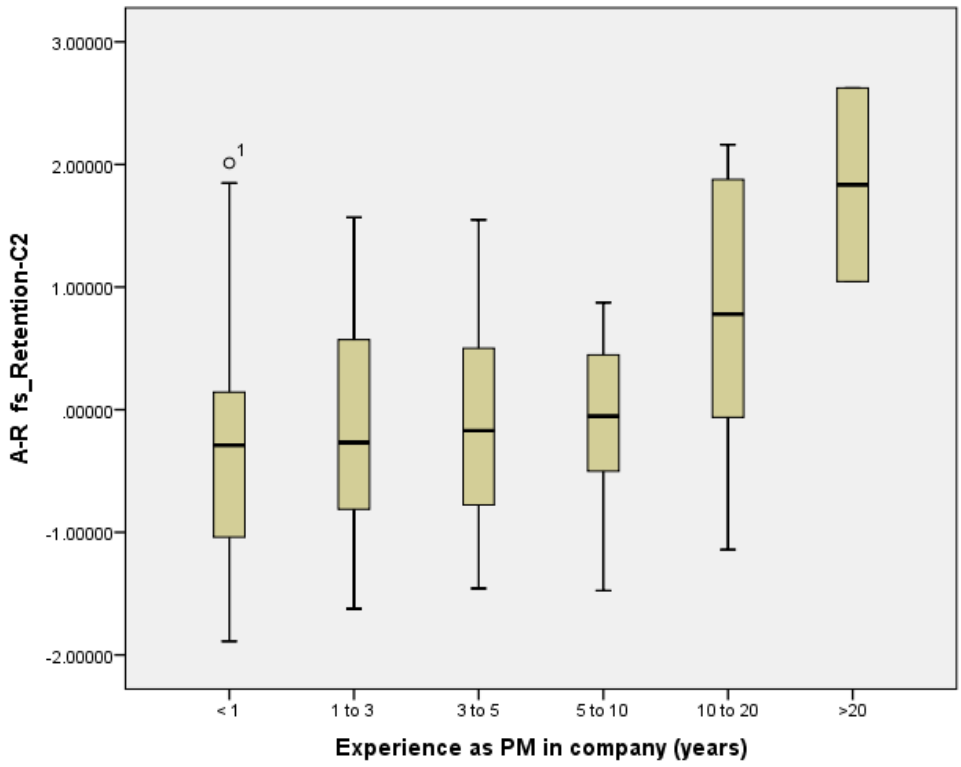

Chart 26 - Experience level differences in factor scores for RC2

8 DISCUSSION

Over 70% of the participants were male, indicating the gender equality is still a challenge in the project management career in Australia. In addition, only 15% of participants were below the age of 32 years old, suggesting a low presence of the Millennium generation as project managers in Australian companies.

Further, over half of participants had less than 3 years of project management experience in the company, and about 58% had a professional project management certification, indicating most companies are conservative when assigning new project managers, requiring staff to be experienced and professionally qualified.

About 22% of the participants have not managed an entire project in their career, with more than half of them having not managed the concept and closeout phase. This indicates that it is relatively common for the turnover event to occur in the execution phase, with project managers being assigned to new projects before the finalization of the current one. It appears that project managers are also skipping the concept phase, which normally happens prior to the contract award, confirming findings of previous research on the association of turnover with the project life cycle (PARKER; SKITMORE, 2005).

Over 80% of respondents believe that project management turnover disrupts project performance, while less than 10% agree that it improves performance or have not impact at all. About 21% of the respondents neither agreed nor disagreed with the statement that turnover improves project performance, probably due to subjectivity of the question. In a scenario where the manager in question is not suited for the role, the turnover event will likely improve project performance. However, the findings suggest that in the majority of cases, the turnover event will negatively affect the project.

In some cases, the turnover of the project management can be beneficial to the project due to specific requirements of each phase. Depending on the project, each phase can be regarded as a sub-project in its own right, requiring different skills and task knowledge of the project manager (PARKER; SKITMORE, 2005). The comment below, provided by one participant in the survey, illustrates and reinforces this point:

> Sometimes, the project may need new skills to be completed. For example, in the early phase of a construction project, a project manager with civil background could add more value to the project, while at the installation and commissioning phase, an electrical or mechanical engineer has more required skills. This type of turnover could be beneficial for the project.

The two major consequences of project management turnover are communication breakdown, and loss of focus and direction, leading to disruption of the team members' performance and compromising project objectives. The lowest rated consequence by participants was additional turnover among staff, suggesting that in the project managers' perspective, their own succession would not greatly influence the intention of team members to leave the project.

Australia scores low (36) on the Power Distance dimension, so managers rely on individual employees and teams for their expertise, so both managers and subordinates expect to be consulted and information is shared frequently. This indicates that communication breakdown is a major consequence for project performance, meaning that an unwanted turnover in a critical time may jeopardize the entire project.

The major cause of turnover is the issue of ethics and integrity in the organizational culture and project team. Other two major causes are related to career motives: a promotion to a better position in the company, or a better offer for an alternative career opportunity. Clearly, project managers are very concerned about ethical values and behavior of people in their work environment, and they will definitely leave their position due to career prospects.

Australia is a highly individualistic culture, with a score of 90 on this dimension, meaning hiring and promotion decisions are based on merit or evidence of what one has done or can do, so project managers expect to see career advancements when they perform well.

In addition, Australia scores 61 on Masculinity dimension, so people are expected to be proud of their successes and value a lot their own achievements. If they feel that their efforts are not being rewarded, they will seek it in alternative career opportunities. As the project management career presents a complex path, replete with lateral movements, from one project to another, the feeling of professional stagnation is very common. It is a cumbersome task for organizations to overcome this challenge and provide project managers with an attractive career framework.

A poor work-life balance was not at the top rated factors motivating turnover intention, being the ninth factor out of thirteen. As Australia is a highly indulgent country, with a score of 71, a higher degree of importance on leisure time would normally be expected. This indicates that project managers have a more assertive profile, meaning they would stand a demanding job

with reduced leisure time in order to accelerate their professional development. This means that project managers have a profile with Masculine and Short Term Orientation characteristics that are stronger than the Indulgence aspects.

The lowest rated factors are related to the project work: lack of resources and staff, and a poor performing or failing project. It does not mean that project managers are not concerned about the project performance, but only that a poor performing project would not greatly influence the motivation to leave.

Australia scores low (21) on Long Term Orientation, meaning a focus on short-term results. This explains the high rate on promotion and advancement opportunities as critical factors for leaving the job. This indicates that, despite the fact that the project outcome is very important for the satisfaction of the stakeholders involved, if the project has proper support, and the project manager is offered opportunities for professional development, than a poor performance would not essentially lead to turnover intent.

About 24% of respondents provided additional reasons. Female respondents included: a significant extension of project timeline, lack of executive leadership, slowness in decision making by sponsor, unfit with personal values, and family reasons. Male respondents suggested: co-workers personalities, unclear and unsetting scope and goals, lack of executive support, lack of stakeholders' commitment, poor sponsorship, inappropriate corporate behavior and organizational culture, and bad project management framework. One participant mentioned that an important reason to voluntarily leave the organization would be the case in which the company does not fulfill its promises to the employees.

> Organisations not 'walking the talk'. They promise one thing, but do another, e.g. not delivering on initiatives such as work-life balance, flexibility in the workplace, diversity of roles for women... Most of these are just 'public relations' talk, and are not filtered down to the recruitment process nor the line management level...

When asked about factors that would retain project management personnel, participants rated the highest, again, ethics and integrity values inherent in the organization, followed by effective manager and challenging work. So organizational culture, aligned with their personal values, and job design are the most important aspects of project management work organizations should be focusing on in order to reduce unwanted voluntary turnover. The least significant factor is job security, confirmed by previous research (PARKER; SKITMORE, 2005), indicating that this offer would only slightly diminish the turnover intention.

Although Australia is an intermediate country on Uncertainty Avoidance dimension (score 51), the project environment presents critical restraints in the form of schedule, budget and scope, that shape organizational behavior towards a stronger uncertainty avoidance profile. Uncertainty adversely affects project performance. In the comments section, a frequent issue mentioned is “unclear or constantly changing scope”, or “lack of clearly defined goals”. In addition, characteristics for Strong Uncertainty Avoidance collectives are higher stress, anxiety, emotionality, meaning project oriented companies should have HRM policies specifically designed to tackle these issues.

Personal motives are all highly rated, with average grade above 3.8 (in a scale from 1 to 5). They are development and growth opportunities, having organizational influence/authority, salary and benefits, recognition, and advancement opportunities. Open-ended comments suggest a clear desire to have organizational influence, and dissatisfaction with the lack of recognition project managers receive.

> In IT, the main focus is cost reduction. This has led to an environment full of changes that are ill conceived and not tested. […] This creates a false economy and causes project times to blow out followed by cost. Causing a high turnover in PM's who get frustrated that their expertise is ignored.
>
> The problem with Project Management is that if projects go well, the business does not recognize it, but the moment that a project has some problems, and mostly due to stakeholders, the Project Manager is to be blamed and the business wants to replace the person.

The principal component analysis conducted on the rates reflecting the extent to each factor in the third section of the survey would contribute to the intention to leave the project management position, indicated three clusters of factors as shown in Figure 4.

The first cluster, called Intention Component 1 (IC1), was named “Work climate”, reflecting its factors related to organizational culture and work environment, as well as job design characteristics. The second cluster, IC2, was called “Career motives”, due to its components being related to professional development and career opportunities. The third and last component of the Intention section, IC3, was defined as “Work relationships”, reflecting the project manager concern towards the interpersonal relationships with the direct supervision, team members, other co-workers and project stakeholders.

Career motives factor scores were higher for project managers working as proper employees than the ones hired as contractors, indicating that the last group’s turnover was not as much influenced by career decisions as the first one.

Project managers with 3 to five years of project experience scored significantly higher in career motives than professionals with 10 to 20 years of experience. This difference was even higher when compared to professionals with more than 20 years of experience.

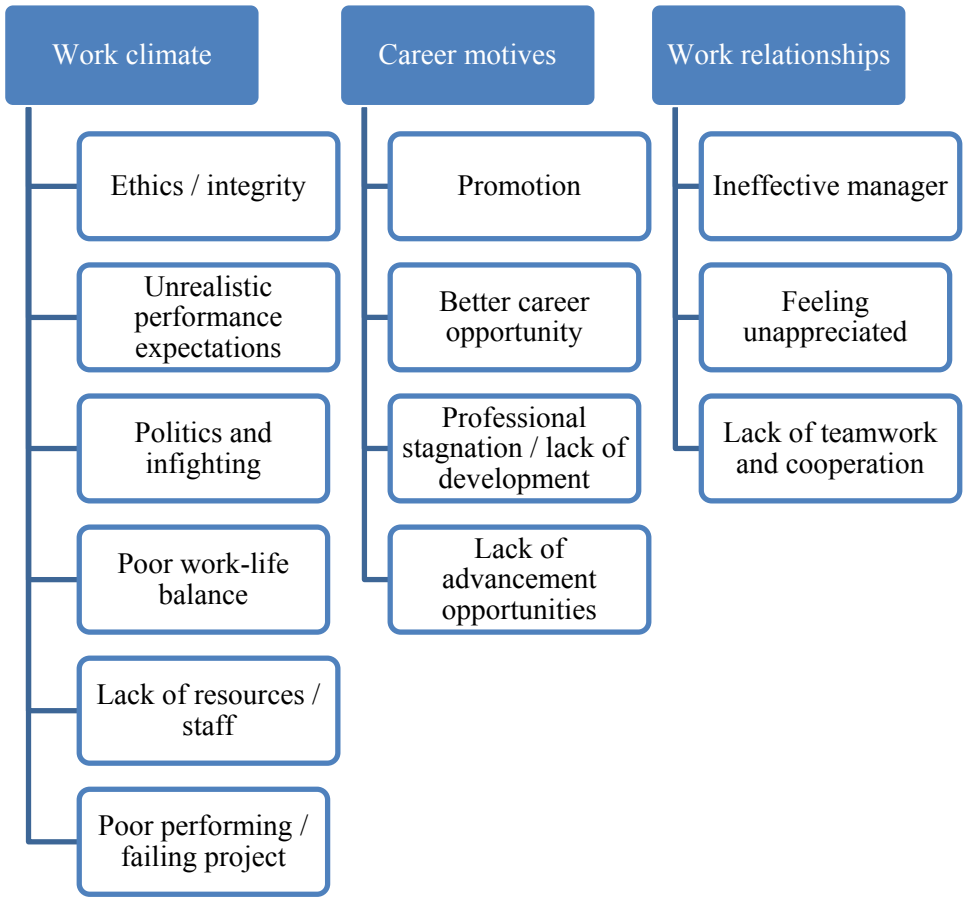

Figure 4 - Components of factors driving turnover intention

Surprisingly, male participants scored higher in work relationships factors than their female counterparts. As Australia has a highly individualistic culture, it is expected that people tend to have a more task-oriented approach towards work, meaning the task prevails over relationships.

The PCA conducted on the retention section of the survey indicated that the factors that would minimize turnover intention are effectively loaded in two components, shown in Figure 5. The first retention component (RC1) is comprised of factors relating to both social values in the work environment and work characteristics, and thus was named “social values and job design”. The second component (RC2) was closely related to career motives, as the second intention component (IC2), and included individual rewards (such as salaries and benefits), so it was labeled “personal motivators”.

Interestingly, the personal motivators were scored higher by participants older than 46 years old, when compared to participants with 25 to 31 years of age. While, career motives are scored higher by people with less experience, it would be natural to expect personal motivators to present higher scores for younger people, the exact opposite of what has happened.

Figure 5 - Components of factor minimizing turnover intention

Significant gender differences were also found. While male respondents scored higher in personal motivators, female respondents scored significantly higher in social values and job design.

Project managers working as contractors, when compared to employees, scored higher in personal motivators, while career motives were higher for employees. Which means that the slight difference between the two components had a strong influence on how people rated the factors.

Personal motivators were also scored higher by participants working in projects, or programs, with 2 to 5 years of duration, against those working in projects that would last from 1 to 2 years.

9 CONCLUSION

This thesis has explained the results obtained from a survey conducted with 108 project managers across several industry sectors in Australia, detailing the statistical analysis conducted on the database to identify the components of factors causing and minimizing project management turnover.

They survey was comprised of sections, exploring the influence of project managers on team members performance, insider succession practices, timing of departure of project management, participants thoughts about moving, the main causes influencing turnover intention, and the negative consequences associated with its occurrence.

The most significant findings are that the main reasons for the turnover event are career motives, including the need for personal development, and dissatisfaction with the organizational culture and the job itself. Social values, such as ethics and integrity are the most important factor driving turnover intention, indicating project managers concern with the work environment and organizational behavior of employers and subordinates.

The results confirm that the turnover event negatively affects the project performance, with indication that the most common consequences are communication breakdown, and loss of focus and direction within the project team, reinforcing cultural aspects of Australian society. As a low Power Distance culture, communication is crucial for project performance, as managers heavily rely on the team expertise to achieve project goals.

Most respondents rated “challenging work” as an important factor, thus job design should also be considered when applying retention practices. In addition, effective superior management has strong influence, and so does opportunities for personal growth.

Further, results indicate that thirteen factors driving turnover intention statistically cluster around three components, reflecting work climate aspects, career motives, and work relationships, respectively. On the other hand, only two components were found for eleven factors contributing to retention of project managers. The first is related to social values in the organization and job design, while the second is comprised of personal motivators and individual rewards.

Significant differences in factor scores for these components were found for groups with different demographics. Career motives and personal motivators were rated differently by

participants in different age tiers, project management experience levels, gender and also employment status. Male participants rated work relationships higher, while social values and job design were more important for females.

As shown, previous research suggests there is a lack of suited Human Resource practices within overall project management culture, due to a failed HRM system. It is necessary to identify and understand the flaws, and direct action to the ones that would lead to an effective improvement in the overall system. To improve the employee wellbeing and satisfaction, it is extremely necessary to implement new techniques and methods.

Additional research is required to investigate the effects of project management turnover from a systemic perspective considering the interaction of nurturing conditions with the most relevant causes of voluntary displacement. Other opportunities include cross-cultural studies, analyzing the demographic differences among project managers around the world.

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APPENDIX A – Survey: Project Management

Survey - Project Management Turnover

The purpose of this research is to determine the impact of project management turnover, to understand the extent to which project management turnover is associated with a particular phase of the project life cycle, and to determine what effect project management turnover may have on project performance. Completion of the survey should take no longer than 10 minutes and your participation is completely voluntarily.

The information obtained from this survey will be kept strictly confidential. At no time will details of who actually participated be provided to the company or third parties and individual respondents will not be identifiable in any reporting back to the organisation. Your input is anonymous; at no time will individual participants be identified.

Please follow instructions for each section.

SECTION I: GENERAL

Please indicate your level of agreement with the following statements.

- Project managers are critical to project success
- Leadership skills of project managers are more important than management skills
- Project managers can significantly impact the performance of project team members
- Project management turnover improves project performance
- Project management turnover disrupts project performance
- Project management turnover has no effect on project performance
- Transferring from one project to another negatively impacts project productivity and performance
- Promoting someone from within the project team to the project management role is preferred
- New project managers are less committed to resolving inherited problems
- A project manager should see the project completely through its life cycle

Scale:

1 - Strongly Disagree

2 - Disagree

3 - Neither Agree or Disagree

4 - Agree

5 - Strongly Agree

No grade - Don’t know

SECTION II: IMPACT OF PROJECT MANAGER TURNOVER

Please indicate the extent to which the turnover of a project manager contributes to each of the following factors.

- Difficulty in achieving project objectives
- Communication breakdown
- Loss of focus and direction
- An increase in unresolved problems
- Morale and motivational problems with project team
- members/staff
- Increased workload for others
- Loss of teamwork and cooperation
- Additional turnover among staff
- Chaos / disorganization

Scale:

1 - Not at All

2 - To a Small Extent

3 - To a Moderate Extent

4 - To a Great Extent

5 - To a Very Great Extent

No grade - Don't Know

SECTION III: INTENTION TO TURNOVER

Please indicate the extent to which of the following factors would cause you to leave your current role.

- Lack of resources/staff
- Better career opportunity
- Promotion
- Ineffective manager
- Unrealistic performance expectations
- Lack of advancement opportunities
- Feeling unappreciated
- Lack of teamwork and cooperation
- Professional stagnation / lack of development
- Poor work / life balance
- Politics and infighting
- Ethics / integrity
- Poor performing / failing project

Scale:

1 - Not at All

2 - To a Small Extent

3 - To a Moderate Extent

4 - To a Great Extent

5 - To a Very Great Extent

No grade - Don't Know

Are there any other factors not mentioned above that would cause you to leave your current role? (Please list)

SECTION IV: RETENTION

Please indicate the extent to which each of the following factors would cause you to stay in your current role

- Challenging work
- Loyalty
- Having organizational influence/authority
- Job security
- Being part of a team
- Advancement opportunities
- Salary/benefits
- Development and growth opportunities
- Recognition
- Effective manager
- Ethics/Integrity

Scale:

1 - Not at All

2 - To a Small Extent

3 - To a Moderate Extent

4 - To a Great Extent

5 - To a Very Great Extent

No grade - Don't Know

SECTION V: DEMOGRAPHIC INFORMATION

Please respond to the following general demographic questions.

1) Please, choose your industry sector.
2) Your country.
3) How many years have you worked for this company? (if less than 1, type 0)
4) What is your current employment status?
    - Contractor
    - Employee
5) How many years have you worked as a project manager with this company?
    - < 1
    - 1 to 3
    - 3 to 5
    - 5 to 10
    - 10 to 20
    - >20
6) Have you managed a project from start to finish, that is, managed all four phases of the project life cycle? (concept, design/planning, execution, closeout / finalisation)?
    - Yes
    - No
7) If you answered no, which life cycle phases have you concept not yet managed?
    - design/planning
    - execution
    - closeout/finalisation
8) Have you ever considered leaving your current project and moving to another project in the current company during the last 12 months?
    - Yes
    - No
9) Have you ever considered leaving your current role and moving to a different role in this company (non-project management) in the last 12 months?

- Yes
- No

10) Have you considered leaving this company in the last 12 months?

- Yes
- No

11) What is your age?

- < 24
- 25 - 31
- 32 - 38
- 39 - 45
- > 46

12) Gender

- M
- F

13) What is your highest level of formal education?

- Diploma
- Degree
- Master
- PhD

14) Do you have any formal project management certification or qualification?

- None
- PMP
- Prince2
- MPM
- Other
- If other, please specify.

15) How many projects have you managed?

16) What is the average duration of each project?

- small (1 - 2 years)

- medium (2 - 5 years)
- large (>5 years)

17) This last section allows you the opportunity to provide comments on the survey, the issues that it raises as well as detailing any issues that you feel should have been covered. Please provide any additional comments.

18) If you would like to receive more information regarding this research in the future, you may wish to enter your email here.

APPENDIX B – Survey results

The results from sections I to IV are displayed in the tables on the next four pages.

Table 7 - Answers for section I (General)

Statements	Responses							
	5	4	3	2	1	Don't know	Mean	Std. Deviation
	n, %	n, %	n, %	n, %	n, %			
Project managers are critical to project success	78 72%	28 26%	1 1%	0 -	1 1%	0 -	4.69	.59
Leadership skills of project managers are more important than management skills	33 31%	34 31%	35 32%	4 4%	2 2%	0 -	3.85	.96
Project managers can significantly impact the performance of project team members	65 60%	39 36%	2 2%	1 1%	1 1%	0 -	4.54	.68
Project management turnover improves project performance	2 2%	7 6%	23 21%	46 43%	28 26%	2 2%	2.14	.95
Project management turnover disrupts project performance	36 33%	53 49%	12 11%	6 6%	0 -	1 1%	4.11	.82
Project management turnover has no effect on project performance	2 2%	4 4%	11 10%	51 47%	40 37%	0 -	1.86	.88
Transferring from one project to another negatively impacts project productivity and performance	14 13%	52 48%	31 29%	10 9%	0 -	1 1%	3.65	.83
Promoting someone from within the project team to the project management role is preferred	7 6%	32 30%	46 43%	21 19%	2 2%	0 -	3.19	.89
New project managers are less committed to resolving inherited problems	2 2%	26 24%	19 18%	53 49%	8 7%	0 -	2.64	.99
A project manager should see the project completely through its life cycle	30 28%	60 56%	11 10%	6 6%	0 -	1 1%	4.07	.78

Table 8 - Answers for section II (Impact of project management turnover)

Factors	Responses							
	5	4	3	2	1	Don't know	Mean	Std. Deviation
	n, %	n, %	n, %	n, %	n, %			
Difficulty in achieving project objectives	7 6%	43 40%	41 38%	12 11%	5 5%	0 -	3.32	.93
Communication breakdown	16 15%	55 51%	25 23%	9 8%	3 3%	0 -	3.67	.93
Loss of focus and direction	12 11%	51 47%	27 25%	16 15%	2 2%	0 -	3.51	.94
An increase in unresolved problems	14 13%	31 29%	35 32%	22 20%	4 4%	2 2%	3.27	1.06
Morale and motivational problems with project team members / staff	10 9%	37 34%	34 31%	20 19%	5 5%	2 2%	3.25	1.02
Increased workload for others	11 10%	37 34%	37 34%	18 17%	4 4%	1 1%	3.31	.99
Loss of teamwork and cooperation	7 6%	35 32%	36 33%	21 19%	7 6%	2 2%	3.13	1.02
Additional turnover among staff	7 6%	21 19%	37 34%	31 29%	8 7%	4 4%	2.88	1.04
Chaos / disorganisation	9 8%	21 19%	38 35%	31 29%	8 7%	1 1%	2.93	1.06

Table 9 - Answers for section III (Intention to turnover)

Factors	Responses							
	5	4	3	2	1	Don't know	Mean	Std. Deviation
	n, %	n, %	n, %	n, %	n, %			
Lack of resources/staff	11 10%	25 23%	39 36%	27 25%	5 5%	1 1%	3.09	1.04
Better career opportunity	28 26%	42 39%	26 24%	10 9%	2 2%	0 -	3.78	1.00
Promotion	36 33%	40 37%	21 19%	9 8%	2 2%	0 -	3.92	1.02
Ineffective manager	31 29%	31 29%	32 30%	13 12%	1 1%	0 -	3.72	1.04
Unrealistic performance expectations	25 23%	41 38%	32 30%	9 8%	1 1%	0 -	3.74	.94
Lack of advancement opportunities	21 19%	32 30%	31 29%	22 20%	2 2%	0 -	3.44	1.08
Feeling unappreciated	24 22%	34 31%	37 34%	13 12%	0 -	0 -	3.64	.96
Lack of teamwork and cooperation	16 15%	37 34%	36 33%	16 15%	3 3%	0 -	3.44	1.01
Professional stagnation/lack of development	24 22%	31 29%	36 33%	15 14%	2 2%	0 -	3.56	1.04
Poor work/life balance	23 21%	30 28%	34 31%	18 17%	3 3%	0 -	3.48	1.09
Politics and infighting	25 23%	31 29%	33 31%	17 16%	2 2%	0 -	3.56	1.07
Ethics/integrity	51 47%	32 30%	16 15%	7 6%	2 2%	0 -	4.14	1.02
Poor performing/failing project	8 7%	25 23%	33 31%	30 28%	12 11%	0 -	2.88	1.12

Table 10 - Answers for section IV (Retention)

Factors	Responses							
	5	4	3	2	1	Don't know	Mean	Std. Deviation
	n, %	n, %	n, %	n, %	n, %			
Challenging work	24 22%	56 52%	24 22%	4 4%	0 -	0 -	3.93	.77
Loyalty	20 19%	48 44%	25 23%	12 11%	3 3%	0 -	3.65	1.00
Having organizational influence/authority	27 25%	50 46%	21 19%	9 8%	1 1%	0 -	3.86	.92
Job security	17 16%	35 32%	30 28%	21 19%	5 5%	0 -	3.35	1.10
Being part of a team	21 19%	44 41%	28 26%	14 13%	1 1%	0 -	3.65	.97
Advancement opportunities	31 29%	43 40%	17 16%	16 15%	1 1%	0 -	3.81	1.05
Salary/benefits	27 25%	47 44%	25 23%	7 6%	2 2%	0 -	3.83	.94
Development and growth opportunities	34 31%	42 39%	19 18%	11 10%	2 2%	0 -	3.88	1.03
Recognition	29 27%	42 39%	26 24%	10 9%	1 1%	0 -	3.81	.97
Effective manager	36 33%	38 35%	23 21%	10 9%	0 -	1 1%	3.93	.96
Ethics/Integrity	42 39%	37 34%	17 16%	9 8%	2 2%	1 1%	4.01	1.03

APPENDIX C – Principal Component Analysis complete output

Intention to turnover section

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Lack of resources/staff	3.09	1.042	107
Better career opportunity	3.79	.988	107
Promotion	3.93	1.003	107
Ineffective manager	3.73	1.042	107
Unrealistic performance expectations	3.74	.945	107
Lack of advancement opportunities	3.44	1.083	107
Feeling unappreciated	3.63	.957	107
Lack of teamwork and cooperation	3.44	1.011	107
Professional stagnation/lack of development	3.54	1.040	107
Poor work/life balance	3.49	1.093	107
Politics and infighting	3.56	1.074	107
Ethics/integrity	4.13	1.019	107
Poor performing/failing project	2.90	1.107	107

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.809
Bartlett's Test of Sphericity	Approx. Chi-Square	559.054
	df	78
	Sig.	.000

Communalities

	Initial	Extraction
Lack of resources/staff	1.000	.408
Better career opportunity	1.000	.815
Promotion	1.000	.779
Ineffective manager	1.000	.551
Unrealistic performance expectations	1.000	.629
Lack of advancement opportunities	1.000	.630
Feeling unappreciated	1.000	.708
Lack of teamwork and cooperation	1.000	.714
Professional stagnation/lack of development	1.000	.498
Poor work/life balance	1.000	.596
Politics and infighting	1.000	.541
Ethics/integrity	1.000	.512
Poor performing/failing project	1.000	.418

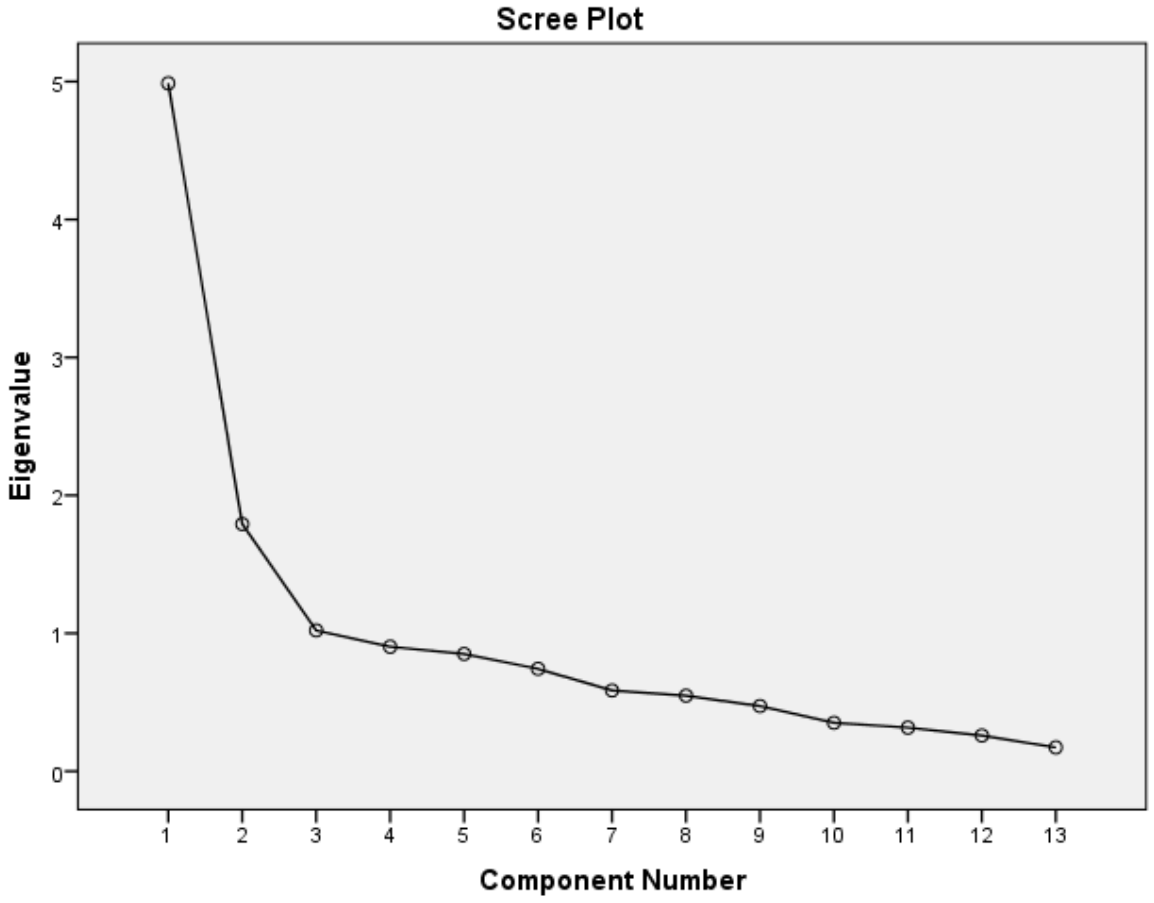
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	4.987	38.365	38.365	4.987	38.365	38.365	3.726
2	1.792	13.784	52.149	1.792	13.784	52.149	2.819
3	1.021	7.851	60.000	1.021	7.851	60.000	3.429
4	.902	6.941	66.941				
5	.850	6.542	73.483				
6	.742	5.710	79.193				
7	.585	4.504	83.697				
8	.548	4.217	87.914				
9	.472	3.632	91.545				
10	.351	2.702	94.247				
11	.316	2.432	96.680				
12	.259	1.993	98.673				
13	.173	1.327	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Component Matrix[a]

	Component		
	1	2	3
Lack of teamwork and cooperation	.731	-.266	-.330
Unrealistic performance expectations	.709	-.307	.180
Feeling unappreciated	.680	.039	-.495
Professional stagnation/lack of development	.677	.170	-.105
Poor performing/failing project	.639	.009	.102
Politics and infighting	.637	-.351	.110
Ineffective manager	.611	-.331	-.260
Lack of advancement opportunities	.601	.441	-.273
Poor work/life balance	.593	-.237	.435
Ethics/integrity	.540	.007	.469
Lack of resources/staff	.536	-.338	.084
Better career opportunity	.534	.711	.153
Promotion	.516	.703	.137

Pattern Matrix[a]

	Component		
	1	2	3
Poor work/life balance	.802	.023	.092
Ethics/integrity	.690	.244	.205
Unrealistic performance expectations	.676	-.030	-.229
Politics and infighting	.597	-.104	-.274
Lack of resources/staff	.515	-.129	-.247
Poor performing/failing project	.424	.244	-.202
Better career opportunity	.087	.891	.056
Promotion	.068	.875	.046
Lack of advancement opportunities	-.120	.611	-.454
Professional stagnation/lack of development	.191	.393	-.387
Feeling unappreciated	-.083	.228	-.799
Lack of teamwork and cooperation	.228	-.032	-.730
Ineffective manager	.254	-.131	-.620

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]

a. Rotation converged in 20 iterations.

Structure Matrix

	Component		
	1	2	3
Poor work/life balance	.768	.182	-.251
Unrealistic performance expectations	.766	.167	-.508
Politics and infighting	.690	.085	-.505
Ethics/integrity	.658	.355	-.137
Lack of resources/staff	.591	.036	-.438
Poor performing/failing project	.563	.379	-.431
Better career opportunity	.261	.899	-.165
Promotion	.242	.880	-.163
Lack of advancement opportunities	.207	.678	-.529
Lack of teamwork and cooperation	.529	.169	-.820
Feeling unappreciated	.305	.375	-.811
Ineffective manager	.487	.054	-.700
Professional stagnation/lack of development	.441	.515	-.548

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Component Correlation Matrix

Component	1	2	3
1	1.000	.222	-.423
2	.222	1.000	-.206
3	-.423	-.206	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Component Score Coefficient Matrix

	Component		
	1	2	3
Lack of resources/staff	.191	-.086	-.075
Better career opportunity	.021	.399	.094
Promotion	.012	.391	.086
Ineffective manager	.043	-.104	-.287
Unrealistic performance expectations	.258	-.044	-.043
Lack of advancement opportunities	-.113	.246	-.198
Feeling unappreciated	-.125	.052	-.389
Lack of teamwork and cooperation	.018	-.066	-.338
Professional stagnation/lack of development	.029	.146	-.145
Poor work/life balance	.343	-.003	.133
Politics and infighting	.222	-.078	-.078
Ethics/integrity	.304	.106	.191
Poor performing/failing project	.149	.086	-.039

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Correlation Matrix

		Lack of resources / staff	Better career opportunity	Promotion	Ineffective manager	Unrealistic performance expectations	Lack of advancement opportunities	Feeling unappreciated	Lack of teamwork and cooperation	Professional stagnation / lack of development	Poor work / life balance	Politics and infighting	Ethics / integrity	Poor performing / failing project
Correlation	Lack of resources/staff	1.000	.138	.069	.345	.475	.189	.272	.444	.205	.349	.248	.246	.344
	Better career opportunity	.138	1.000	.796	.129	.205	.491	.267	.214	.348	.154	.119	.289	.360
	Promotion	.069	.796	1.000	.109	.221	.426	.338	.233	.306	.150	.122	.322	.266
	Ineffective manager	.345	.129	.109	1.000	.464	.249	.408	.553	.328	.274	.415	.309	.237
	Unrealistic performance expectations	.475	.205	.221	.464	1.000	.215	.360	.546	.386	.480	.434	.388	.407
	Lack of advancement opportunities	.189	.491	.426	.249	.215	1.000	.488	.296	.557	.312	.151	.178	.321
	Feeling unappreciated	.272	.267	.338	.408	.360	.488	1.000	.591	.424	.202	.417	.273	.311
	Lack of teamwork and cooperation	.444	.214	.233	.553	.546	.296	.591	1.000	.364	.326	.483	.237	.412
	Professional stagnation/lack of development	.205	.348	.306	.328	.386	.557	.424	.364	1.000	.339	.350	.324	.442
	Poor work/life balance	.349	.154	.150	.274	.480	.312	.202	.326	.339	1.000	.481	.340	.353
	Politics and infighting	.248	.119	.122	.415	.434	.151	.417	.483	.350	.481	1.000	.354	.438
	Ethics/integrity	.246	.289	.322	.309	.388	.178	.273	.237	.324	.340	.354	1.000	.196
	Poor performing/failing project	.344	.360	.266	.237	.407	.321	.311	.412	.442	.353	.438	.196	1.000

Correlation Matrix[a]

		Lack of resources / staff	Better career opportunity	Promotion	Ineffective manager	Unrealistic performance expectations	Lack of advancement opportunities	Feeling unappreciated	Lack of teamwork and cooperation	Professional stagnation / lack of development	Poor work / life balance	Politics and infighting	Ethics / integrity	Poor performing / failing project
Sig. (1-tailed)	Lack of resources/staff		.078	.240	.000	.000	.026	.002	.000	.017	.000	.005	.005	.000
	Better career opportunity	.078		.000	.093	.017	.000	.003	.013	.000	.056	.112	.001	.000
	Promotion	.240	.000		.131	.011	.000	.000	.008	.001	.062	.105	.000	.003
	Ineffective manager	.000	.093	.131		.000	.005	.000	.000	.000	.002	.000	.001	.007
	Unrealistic performance expectations	.000	.017	.011	.000		.013	.000	.000	.000	.000	.000	.000	.000
	Lack of advancement opportunities	.026	.000	.000	.005	.013		.000	.001	.000	.001	.060	.033	.000
	Feeling unappreciated	.002	.003	.000	.000	.000	.000		.000	.000	.018	.000	.002	.001
	Lack of teamwork and cooperation	.000	.013	.008	.000	.000	.001	.000		.000	.000	.000	.007	.000
	Professional stagnation/lack of development	.017	.000	.001	.000	.000	.000	.000	.000		.000	.000	.000	.000
	Poor work/life balance	.000	.056	.062	.002	.000	.001	.018	.000	.000		.000	.000	.000
	Politics and infighting	.005	.112	.105	.000	.000	.060	.000	.000	.000	.000		.000	.000
	Ethics/integrity	.005	.001	.000	.001	.000	.033	.002	.007	.000	.000	.000		.022
	Poor performing/failing project	.000	.000	.003	.007	.000	.000	.001	.000	.000	.000	.000	.022	

a. Determinant = .004

Anti-image Matrices													
		Lack of resources / staff	Better career opportunity	Promotion	Ineffective manager	Unrealistic performance expectations	Lack of advancement opportunities	Feeling unappreciated	Lack of teamwork and cooperation	Professional stagnation / lack of development	Poor work / life balance	Politics and infighting	Ethics / integrity	Poor performing / failing project
Anti-image Covariance	Lack of resources/staff	.662	-.037	.071	-.045	-.124	-.013	-.022	-.099	.060	-.087	.080	-.066	-.098
	Better career opportunity	-.037	.309	-.232	-.011	.014	-.095	.061	.003	-.007	.039	.002	-.030	-.088
	Promotion	.071	-.232	.328	.043	-.032	-.001	-.072	-.022	.013	-.014	.024	-.068	.025
	Ineffective manager	-.045	-.011	.043	.601	-.085	-.044	-.019	-.146	-.033	.036	-.081	-.081	.067
	Unrealistic performance expectations	-.124	.014	-.032	-.085	.500	.062	-.002	-.096	-.067	-.129	.000	-.079	-.055
	Lack of advancement opportunities	-.013	-.095	-.001	-.044	.062	.466	-.169	.023	-.192	-.146	.104	.073	-.007
	Feeling unappreciated	-.022	.061	-.072	-.019	-.002	-.169	.475	-.160	-.026	.110	-.114	-.043	.019
	Lack of teamwork and cooperation	-.099	.003	-.022	-.146	-.096	.023	-.160	.426	-.001	-.001	-.063	.078	-.053
	Professional stagnation/lack of development	.060	-.007	.013	-.033	-.067	-.192	-.026	-.001	.543	-.002	-.038	-.088	-.119
	Poor work/life balance	-.087	.039	-.014	.036	-.129	-.146	.110	-.001	-.002	.580	-.185	-.083	-.025
	Politics and infighting	.080	.002	.024	-.081	.000	.104	-.114	-.063	-.038	-.185	.519	-.089	-.140
	Ethics/integrity	-.066	-.030	-.068	-.081	-.079	.073	-.043	.078	-.088	-.083	-.089	.686	.075
	Poor performing/failing project	-.098	-.088	.025	.067	-.055	-.007	.019	-.053	-.119	-.025	-.140	.075	.595

Anti-image Matrices

		Lack of resources / staff	Better career opportunity	Promotion	Ineffective manager	Unrealistic performance expectations	Lack of advancement opportunities	Feeling unappreciated	Lack of teamwork and cooperation	Professional stagnation / lack of development	Poor work / life balance	Politics and infighting	Ethics / integrity	Poor performing / failing project
Anti-image Correlation	Lack of resources/staff	.844[a]	-.082	.151	-.071	-.215	-.023	-.039	-.187	.100	-.141	.136	-.098	-.157
	Better career opportunity	-.082	.678[a]	-.729	-.025	.037	-.250	.158	.009	-.018	.093	.004	-.066	-.206
	Promotion	.151	-.729	.680[a]	.096	-.080	-.002	-.183	-.059	.031	-.031	.059	-.143	.058
	Ineffective manager	-.071	-.025	.096	.882[a]	-.156	-.083	-.035	-.289	-.058	.061	-.145	-.126	.113
	Unrealistic performance expectations	-.215	.037	-.080	-.156	.887[a]	.127	-.004	-.208	-.128	-.239	.000	-.135	-.101
	Lack of advancement opportunities	-.023	-.250	-.002	-.083	.127	.744[a]	-.358	.052	-.381	-.280	.212	.128	-.014
	Feeling unappreciated	-.039	.158	-.183	-.035	-.004	-.358	.801[a]	-.356	-.052	.210	-.229	-.076	.035
	Lack of teamwork and cooperation	-.187	.009	-.059	-.289	-.208	.052	-.356	.855[a]	-.001	-.002	-.134	.144	-.106
	Professional stagnation/lack of development	.100	-.018	.031	-.058	-.128	-.381	-.052	-.001	.871[a]	-.004	-.072	-.145	-.209
	Poor work/life balance	-.141	.093	-.031	.061	-.239	-.280	.210	-.002	-.004	.790[a]	-.338	-.131	-.042
	Politics and infighting	.136	.004	.059	-.145	.000	.212	-.229	-.134	-.072	-.338	.810[a]	-.149	-.253
	Ethics/integrity	-.098	-.066	-.143	-.126	-.135	.128	-.076	.144	-.145	-.131	-.149	.849[a]	.117
	Poor performing/failing project	-.157	-.206	.058	.113	-.101	-.014	.035	-.106	-.209	-.042	-.253	.117	.865[a]

a. Measures of Sampling Adequacy(MSA)

Reproduced Correlations

		Lack of resources / staff	Better career opportunity	Promotion	Ineffective manager	Unrealistic performance expectations	Lack of advancement opportunities	Feeling unappreciated	Lack of teamwork and cooperation	Professional stagnation / lack of development	Poor work / life balance	Politics and infighting	Ethics / integrity	Poor performing / failing project
Reproduced Correlation	Lack of resources/staff	.408[a]	.059	.051	.417	.499	.150	.309	.454	.296	.434	.469	.327	.348
	Better career opportunity	.059	.815[a]	.797	.051	.188	.593	.315	.151	.467	.215	.108	.366	.363
	Promotion	.051	.797	.779[a]	.047	.175	.583	.311	.146	.455	.199	.098	.348	.350
	Ineffective manager	.417	.051	.047	.551[a]	.488	.292	.531	.621	.385	.327	.477	.206	.361
	Unrealistic performance expectations	.499	.188	.175	.488	.629[a]	.241	.381	.540	.408	.571	.579	.465	.468
	Lack of advancement opportunities	.150	.593	.583	.292	.241	.630[a]	.561	.412	.510	.133	.198	.200	.360
	Feeling unappreciated	.309	.315	.311	.531	.381	.561	.708[a]	.650	.519	.178	.365	.135	.384
	Lack of teamwork and cooperation	.454	.151	.146	.621	.540	.412	.650	.714[a]	.484	.352	.523	.238	.431
	Professional stagnation/lack of development	.296	.467	.455	.385	.408	.510	.519	.484	.498[a]	.315	.360	.317	.423
	Poor work/life balance	.434	.215	.199	.327	.571	.133	.178	.352	.315	.596[a]	.508	.523	.420
	Politics and infighting	.469	.108	.098	.477	.579	.198	.365	.523	.360	.508	.541[a]	.393	.415
	Ethics/integrity	.327	.366	.348	.206	.465	.200	.135	.238	.317	.523	.393	.512[a]	.393
	Poor performing/failing project	.348	.363	.350	.361	.468	.360	.384	.431	.423	.420	.415	.393	.418[a]

Reproduced Correlations

		Lack of resources / staff	Better career opportunity	Promotion	Ineffective manager	Unrealistic performance expectations	Lack of advancement opportunities	Feeling unappreciated	Lack of teamwork and cooperation	Professional stagnation / lack of development	Poor work / life balance	Politics and infighting	Ethics / integrity	Poor performing / failing project
Residual[b]	Lack of resources/staff		.079	.018	-.072	-.023	.039	-.037	-.009	-.091	-.085	-.221	-.081	-.004
	Better career opportunity	.079		-.001	.077	.017	-.102	-.048	.063	-.118	-.060	.011	-.076	-.003
	Promotion	.018	-.001		.062	.046	-.156	.027	.088	-.149	-.050	.024	-.026	-.084
	Ineffective manager	-.072	.077	.062		-.024	-.044	-.123	-.068	-.056	-.053	-.062	.103	-.124
	Unrealistic performance expectations	-.023	.017	.046	-.024		-.026	-.020	.006	-.023	-.091	-.145	-.077	-.061
	Lack of advancement opportunities	.039	-.102	-.156	-.044	-.026		-.073	-.116	.047	.179	-.047	-.022	-.039
	Feeling unappreciated	-.037	-.048	.027	-.123	-.020	-.073		-.059	-.095	.024	.052	.138	-.073
	Lack of teamwork and cooperation	-.009	.063	.088	-.068	.006	-.116	-.059		-.121	-.027	-.039	-.002	-.019
	Professional stagnation/lack of development	-.091	-.118	-.149	-.056	-.023	.047	-.095	-.121		.024	-.010	.007	.019
	Poor work/life balance	-.085	-.060	-.050	-.053	-.091	.179	.024	-.027	.024		-.028	-.183	-.067
	Politics and infighting	-.221	.011	.024	-.062	-.145	-.047	.052	-.039	-.010	-.028		-.039	.023
	Ethics/integrity	-.081	-.076	-.026	.103	-.077	-.022	.138	-.002	.007	-.183	-.039		-.197
	Poor performing/failing project	-.004	-.003	-.084	-.124	-.061	-.039	-.073	-.019	.019	-.067	.023	-.197	

Extraction Method: Principal Component Analysis.

a. Reproduced communalities

b. Residuals are computed between observed and reproduced correlations. There are 40 (51.0%) nonredundant residuals with absolute values greater than 0.05.

Retention section

Descriptive Statistics

	Mean	Std. Deviation	Analysis N
Challenging work	3.93	.773	107
Loyalty	3.64	1.002	107
Having organizational influence/authority	3.85	.919	107
Job security	3.35	1.108	107
Being part of a team	3.64	.965	107
Advancement opportunities	3.79	1.044	107
Salary/benefits	3.83	.947	107
Development and growth opportunities	3.87	1.029	107
Recognition	3.80	.966	107
Effective manager	3.93	.964	107
Ethics/Integrity	4.01	1.032	107

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.836
Bartlett's Test of Sphericity	Approx. Chi-Square	652.201
	df	55
	Sig.	.000

Communalities

	Initial	Extraction
Challenging work	1.000	.463
Loyalty	1.000	.662
Having organizational influence/authority	1.000	.609
Job security	1.000	.552
Being part of a team	1.000	.687
Advancement opportunities	1.000	.801
Salary/benefits	1.000	.681
Development and growth opportunities	1.000	.757
Recognition	1.000	.626
Effective manager	1.000	.572
Ethics/Integrity	1.000	.435

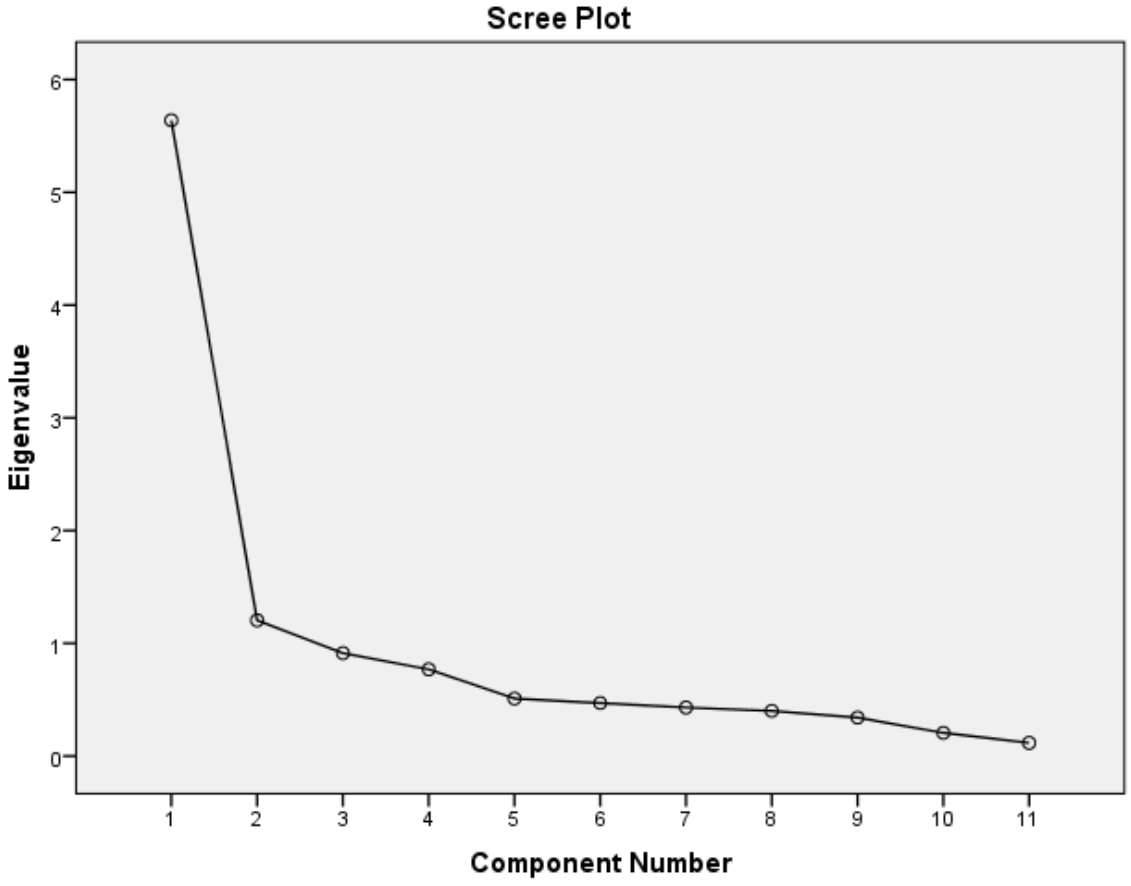
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings[a]
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	5.639	51.262	51.262	5.639	51.262	51.262	4.558
2	1.204	10.943	62.206	1.204	10.943	62.206	4.431
3	.912	8.295	70.501				
4	.769	6.994	77.494				
5	.510	4.636	82.130				
6	.470	4.273	86.404				
7	.431	3.914	90.318				
8	.401	3.643	93.961				
9	.342	3.106	97.067				
10	.206	1.870	98.937				
11	.117	1.063	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Pattern Matrix[a]

	Component	
	1	2
Loyalty	.905	.253
Having organizational influence/authority	.692	-.157
Challenging work	.691	.023
Being part of a team	.626	-.319
Ethics/Integrity	.581	-.139
Effective manager	.509	-.365
Job security	.505	-.353
Salary/benefits	-.167	-.893
Advancement opportunities	.077	-.855
Development and growth opportunities	.250	-.721
Recognition	.186	-.684

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.[a]

a. Rotation converged in 11 iterations.

Structure Matrix

	Component	
	1	2
Loyalty	.783	-.185
Being part of a team	.780	-.622
Having organizational influence/authority	.768	-.492
Effective manager	.685	-.611
Challenging work	.680	-.311
Job security	.676	-.597
Ethics/Integrity	.648	-.421
Advancement opportunities	.491	-.892
Development and growth opportunities	.599	-.842
Salary/benefits	.265	-.812
Recognition	.517	-.774

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Component Correlation Matrix

Component	1	2
1	1.000	-.484
2	-.484	1.000

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.

Component Score Coefficient Matrix

	Component	
	1	2
Challenging work	.235	.065
Loyalty	.326	.165
Having organizational influence/authority	.220	.001
Job security	.141	-.084
Being part of a team	.184	-.062
Advancement opportunities	-.045	-.297
Salary/benefits	-.130	-.331
Development and growth opportunities	.025	-.236
Recognition	.006	-.228
Effective manager	.141	-.088
Ethics/Integrity	.184	-.002

Extraction Method: Principal Component Analysis.
Rotation Method: Oblimin with Kaiser Normalization.
Component Scores.

Correlation Matrix[a]

		Challenging work	Loyalty	Having organizational influence/authority	Job security	Being part of a team	Advancement opportunities	Salary/benefits	Development and growth opportunities	Recognition	Effective manager	Ethics/Integrity
Correlation	Challenging work	1.000	.367	.475	.262	.469	.366	.163	.509	.296	.411	.344
	Loyalty	.367	1.000	.495	.511	.547	.200	.175	.339	.317	.317	.359
	Having organizational influence/authority	.475	.495	1.000	.560	.554	.518	.318	.488	.466	.500	.399
	Job security	.262	.511	.560	1.000	.622	.551	.407	.462	.584	.410	.401
	Being part of a team	.469	.547	.554	.622	1.000	.599	.407	.588	.540	.623	.392
	Advancement opportunities	.366	.200	.518	.551	.599	1.000	.595	.809	.605	.493	.361
	Salary/benefits	.163	.175	.318	.407	.407	.595	1.000	.568	.510	.391	.282
	Development and growth opportunities	.509	.339	.488	.462	.588	.809	.568	1.000	.610	.600	.463
	Recognition	.296	.317	.466	.584	.540	.605	.510	.610	1.000	.493	.342
	Effective manager	.411	.317	.500	.410	.623	.493	.391	.600	.493	1.000	.636
	Ethics/Integrity	.344	.359	.399	.401	.392	.361	.282	.463	.342	.636	1.000

Correlation Matrix[a]

		Challenging work	Loyalty	Having organizational influence/authority	Job security	Being part of a team	Advancement opportunities	Salary/benefits	Development and growth opportunities	Recognition	Effective manager	Ethics/Integrity
Sig. (1-tailed)	Challenging work		.000	.000	.003	.000	.000	.047	.000	.001	.000	.000
	Loyalty	.000		.000	.000	.000	.019	.036	.000	.000	.000	.000
	Having organizational influence/authority	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
	Job security	.003	.000	.000		.000	.000	.000	.000	.000	.000	.000
	Being part of a team	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
	Advancement opportunities	.000	.019	.000	.000	.000		.000	.000	.000	.000	.000
	Salary/benefits	.047	.036	.000	.000	.000	.000		.000	.000	.000	.002
	Development and growth opportunities	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
	Recognition	.001	.000	.000	.000	.000	.000	.000	.000		.000	.000
	Effective manager	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	Ethics/Integrity	.000	.000	.000	.000	.000	.000	.002	.000	.000	.000	

a. Determinant = .002

Anti-image Matrices

		Challenging work	Loyalty	Having organizational influence/authority	Job security	Being part of a team	Advancement opportunities	Salary/benefits	Development and growth opportunities	Recognition	Effective manager	Ethics/Integrity
Anti-image Covariance	Challenging work	.594	-.024	-.139	.066	-.085	.036	.090	-.112	.018	.013	-.042
	Loyalty	-.024	.487	-.129	-.113	-.148	.133	.004	-.080	.009	.087	-.083
	Having organizational influence/authority	-.139	-.129	.478	-.081	.021	-.080	.014	.046	-.024	-.080	.008
	Job security	.066	-.113	-.081	.407	-.085	-.069	-.024	.050	-.126	.047	-.084
	Being part of a team	-.085	-.148	.021	-.085	.330	-.073	-.003	.024	-.012	-.144	.086
	Advancement opportunities	.036	.133	-.080	-.069	-.073	.226	-.066	-.143	-.014	.047	-.002
	Salary/benefits	.090	.004	.014	-.024	-.003	-.066	.580	-.057	-.082	-.022	-.001
	Development and growth opportunities	-.112	-.080	.046	.050	.024	-.143	-.057	.225	-.059	-.063	-.025
	Recognition	.018	.009	-.024	-.126	-.012	-.014	-.082	-.059	.477	-.050	.037
	Effective manager	.013	.087	-.080	.047	-.144	.047	-.022	-.063	-.050	.363	-.219
	Ethics/Integrity	-.042	-.083	.008	-.084	.086	-.002	-.001	-.025	.037	-.219	.527

Anti-image Matrices

		Challenging work	Loyalty	Having organizational influence/authority	Job security	Being part of a team	Advancement opportunities	Salary/benefits	Development and growth opportunities	Recognition	Effective manager	Ethics/Integrity
Anti-image Correlation	Challenging work	.848[a]	-.045	-.261	.134	-.192	.097	.153	-.307	.035	.029	-.076
	Loyalty	-.045	.720[a]	-.266	-.255	-.370	.402	.007	-.243	.019	.208	-.164
	Having organizational influence/authority	-.261	-.266	.888[a]	-.184	.054	-.243	.026	.140	-.050	-.191	.015
	Job security	.134	-.255	-.184	.862[a]	-.233	-.227	-.049	.166	-.285	.121	-.182
	Being part of a team	-.192	-.370	.054	-.233	.847[a]	-.269	-.006	.089	-.031	-.417	.207
	Advancement opportunities	.097	.402	-.243	-.227	-.269	.777[a]	-.181	-.635	-.044	.165	-.006
	Salary/benefits	.153	.007	.026	-.049	-.006	-.181	.937[a]	-.158	-.156	-.047	-.002
	Development and growth opportunities	-.307	-.243	.140	.166	.089	-.635	-.158	.811[a]	-.179	-.219	-.072
	Recognition	.035	.019	-.050	-.285	-.031	-.044	-.156	-.179	.936[a]	-.120	.073
	Effective manager	.029	.208	-.191	.121	-.417	.165	-.047	-.219	-.120	.802[a]	-.501
	Ethics/Integrity	-.076	-.164	.015	-.182	.207	-.006	-.002	-.072	.073	-.501	.818[a]

a. Measures of Sampling Adequacy(MSA)

Reproduced Correlations

		Challenging work	Loyalty	Having organizational influence/authority	Job security	Being part of a team	Advancement opportunities	Salary/benefits	Development and growth opportunities	Recognition	Effective manager	Ethics/Integrity
Reproduced Correlation	Challenging work	.463[a]	.537	.519	.453	.525	.319	.164	.394	.340	.459	.438
	Loyalty	.537	.662[a]	.571	.460	.549	.218	.034	.329	.272	.466	.481
	Having organizational influence/authority	.519	.571	.609[a]	.561	.638	.480	.311	.547	.480	.570	.515
	Job security	.453	.460	.561	.552[a]	.613	.562	.420	.599	.534	.562	.476
	Being part of a team	.525	.549	.638	.613	.687[a]	.592	.425	.643	.571	.624	.540
	Advancement opportunities	.319	.218	.480	.562	.592	.801[a]	.715	.766	.702	.575	.409
	Salary/benefits	.164	.034	.311	.420	.425	.715	.681[a]	.652	.605	.431	.267
	Development and growth opportunities	.394	.329	.547	.599	.643	.766	.652	.757[a]	.687	.612	.465
	Recognition	.340	.272	.480	.534	.571	.702	.605	.687	.626[a]	.546	.408
	Effective manager	.459	.466	.570	.562	.624	.575	.431	.612	.546	.572[a]	.483
	Ethics/Integrity	.438	.481	.515	.476	.540	.409	.267	.465	.408	.483	.435[a]

Reproduced Correlations

		Challenging work	Loyalty	Having organizational influence/authority	Job security	Being part of a team	Advancement opportunities	Salary/benefits	Development and growth opportunities	Recognition	Effective manager	Ethics/Integrity
Residual[b]	Challenging work		-.170	-.044	-.191	-.056	.048	-.001	.115	-.044	-.049	-.095
	Loyalty	-.170		-.076	.050	-.001	-.018	.141	.010	.045	-.148	-.122
	Having organizational influence/authority	-.044	-.076		-.001	-.083	.038	.007	-.059	-.014	-.071	-.116
	Job security	-.191	.050	-.001		.008	-.011	-.014	-.137	.050	-.152	-.075
	Being part of a team	-.056	-.001	-.083	.008		.007	-.018	-.055	-.031	-.001	-.148
	Advancement opportunities	.048	-.018	.038	-.011	.007		-.120	.044	-.096	-.083	-.049
	Salary/benefits	-.001	.141	.007	-.014	-.018	-.120		-.084	-.094	-.040	.014
	Development and growth opportunities	.115	.010	-.059	-.137	-.055	.044	-.084		-.077	-.012	-.002
	Recognition	-.044	.045	-.014	.050	-.031	-.096	-.094	-.077		-.053	-.066
	Effective manager	-.049	-.148	-.071	-.152	-.001	-.083	-.040	-.012	-.053		.152
	Ethics/Integrity	-.095	-.122	-.116	-.075	-.148	-.049	.014	-.002	-.066	.152	

Extraction Method: Principal Component Analysis.

a. Reproduced communalities

b. Residuals are computed between observed and reproduced correlations. There are 28 (50.0%) nonredundant residuals with absolute values greater than 0.05.