AN INVESTIGATION OF THE ROLE OF TRUST IN VIRTUAL PROJECT MANAGEMENT SUCCESS

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Partial survey data results submitted to PMI

December 27, 2006

This research is part of a thesis to be submitted by mid 2007 in partial fulfilment of the requirements of the degree of

Doctor of Information Technology

Murdoch University

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1.1 Introduction

This document presents partial results of the study carried out to investigate the role of trust in relation to project management success. The results included in this document are derived from the first stage of data analysis which comprised descriptive data. This study used a web-based survey hosted on the PMI site to investigate trust dynamics in a virtual project in relation to project success. The study explores trust issues from a project manager’s perspective.

1.2 Presentation and analysis of descriptive data

This research was conducted from July 28th, 2006 through October 25th, 2006. A total of 64 respondents participated in the research. The results submitted in this document are not the complete results of the study and instead represent only descriptive data. Partial results have been submitted as the study is ongoing at the time of this submission, completed results are expected to be available before the end of the 1st quarter 2007. The completed results will be made available to the PMI and requests to view the completed results may be made after such a time. Results in this document include summaries of age, gender, education background, positions held by respondents, traditional project management experience, virtual project management experience, size of the organizations represented, number of work sites, size of projects in monetary value, number of members per project team, prior history of working together, occurrences of face-to-face meetings, spread over different countries, ethnic background and project types.
1.2.1 Age distribution

Figure 1 shows the age distribution of the respondents. The majority, 52% of respondents, fell in the 36-45 year old age group. This was followed by 23% who were in the 46-55 year old age group and 20% who represented the 26-35 year old age group. Three percent were above the age of 56 and an even smaller percentage were younger than 25 years old (2%). This is an expected distribution in that it shows that for one to be considered ready to take on project management duties a requisite number of years of experience in the industry is required after graduating from university or college. Younger project managers below the age of 25 are an uncommon group.

![AGE DISTRIBUTION](image)

Figure 1: Age Distribution

1.2.2 Gender

A total of 79% of the respondents were male while 21% were female. In today’s organizations one would have expect that more and more women would take on these positions but other factors beyond the scope of this study may account for this disparity.
1.2.3 Educational background

The majority of the sample (50%) held a Masters degree as shown in figure 3. This was followed by 35% of the respondents who held a Bachelors degree. In total 97% of all respondents were of a degree level. This suggests a trend towards gaining formal project management qualifications either through a Masters in project management or through the doctorate qualification. It is therefore not surprising that over 50% of the sample had postgraduate degrees.
1.2.4 Positions held

Table 1 lists the positions held by the sample. The sample shows a number of titles and positions that include the role of the project manager. Of the respondents sampled, 53% held the position of project manager. This was followed by the position of IT Manager at 27%. IT Managers usually take on several roles including that of managing projects. The position of construction manager was next, representing 6% of the respondents. The program manager title represented 5% of the sample. These respondents could be part of an organization where there is a project management office comprising many project managers working with multiple projects concurrently. The position of Director was represented by 4% of the respondents.
Table 1: Position in company

<table>
<thead>
<tr>
<th>Title</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>53%</td>
</tr>
<tr>
<td>IT Manager</td>
<td>27%</td>
</tr>
<tr>
<td>Construction Manager</td>
<td>6%</td>
</tr>
<tr>
<td>General Manager</td>
<td>5%</td>
</tr>
<tr>
<td>Program Manager</td>
<td>5%</td>
</tr>
<tr>
<td>Director</td>
<td>4%</td>
</tr>
</tbody>
</table>

1.2.5 Number of years managing traditional projects

Figure 5 shows that the largest group of the sample, represented by 40% of the total, had managed traditional projects for at least 5 to 9 years. This was followed by 23% of those sampled who had managed traditional projects for 10 to 14 years. The third large group at 22% had managed traditional projects for at least 4 years. The sample had a reasonably large group that had managed traditional projects for more than 15 years. The results are generally expected because in comparison to their involvement in virtual environments project managers are more likely to have been involved in the traditional environment for a much longer period.

![Number of years of managing traditional project teams](image)

**Figure 5: Number of years of managing traditional teams**
1.2.6 Number of years managing virtual projects

In contrast to the traditional environment, the sample had less experience managing virtual teams. Figure 6 shows that 45% of the respondents had virtual project management experience of only 1 to 2 years. This was followed by 32% of those sampled who had 3 to 4 years experience and 16% had managed virtual project teams for 5 to 6 years. It was interesting to see that 7% of the sample had more than 7 years of experience in managing virtual project teams. This is possibly representative of large corporations that began operating globally at an early stage.

![Number of years of managing virtual project teams](image)

Figure 6: Years of managing virtual project teams

1.2.7 Size of organization

The largest group of those sampled came from large organizations with more than 500 staff members (39%). This was followed by 22% of the sample, whose organizations had 50 to 100 staff, and 20% of the sample came from organizations of more than 100 but less than 500 staff. The smallest group (19%) belonged to small business operations of less than 50 staff. Generally the sample represented large organizations of at least 500 staff.
1.2.8 Number of work sites

The number of work sites was also considered (see Figure 8). The largest group of the sample, (37 %), managed project teams spread over 4 to 5 work sites. This was followed by 33% whose teams spread over 3 or less work sites. A sizable group of 30 % managed projects teams spread over more than 6 work sites.
1.2.9 Size of last project in monetary terms

Figure 9 shows the distribution of projects managed by the sample according to the monetary value (in US dollars). The most common project size was $100,000 - $500,000 (41%). This was followed by 23% of the respondents who managed large projects valued at more than $1,000,000. Of those sampled, 20% worked with smaller projects of less than $100,000 while 16% worked with $500,000 – $1,000,000.

![Size of last project in monetary terms (K=$1000)](image)

Figure 9: The size of the project in monetary terms

1.2.10 Number of project team members

Project team size was also of interest. The most common team size was 6 to 10 members as illustrated in figure 10. Larger teams were represented by 18% of the sample who managed project teams of more than 25 team members. This was followed by 17% of the sample at 11 to 15 team members.
1.2.11 Prior history between members

Of the project managers surveyed, 75% indicated that team members of the projects they managed had prior history of having had worked together previously. This is in contrast to 25% whose team members had never worked together before the project.

1.2.12 Face-to-face

From figure 11, we can see that the most common number of face-to-face meetings was 2 to 3 times. Of those sampled, teams that had face-to-face meetings of more than 4 times comprised the second largest grouping. A few of the sample managed teams that had never met face-to-face. This result shows that a large number of the project managers sampled, were involved with teams that had a high incidence of face-to-face interaction. Of the project managers surveyed 75% stated that their teams had an initial face-to-face meeting. While 255 stated that their teams had not had an initial face-to-face meeting.
1.2.13 Number of country sites

Figure 12 shows the distribution of projects at a country level. This is slightly similar to the number of work sites but it goes further to find out over how many countries the project was spread over. Most commonly the projects (32%) managed by the sample were within the same country. This is expected of largely spread countries such as the US or Australia. This was followed by 29% whose projects were spread over 2 countries. The next large group (24%) were spread over 3 countries while 15% were spread over more than 3 countries.
1.2.14 Number of ethnic backgrounds represented

The teams represented in the study covered a range of ethnic backgrounds. The most common range was 1 to 3 different ethnic backgrounds (44%) as depicted in figure 13. This was followed by 33% who had a higher diversity of 4 to 6 different backgrounds. A smaller 7% of the sample showed a large diversity figure of more than 10 different ethnic backgrounds.
1.2.15 Project types represented

Figure 2 shows that the most common type of projects represented were from Information Technology at 65% and from Civil Engineering projects at 17%. Civil Engineering has been involved in large projects spread over many work sites for a long time now. Lately there has been an upsurge in the use of communication technologies as a tool to manage these projects.

Table 2: Types of projects represented

<table>
<thead>
<tr>
<th>Project Types</th>
<th>% of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Technology</td>
<td>65%</td>
</tr>
<tr>
<td>Civil Engineering</td>
<td>17%</td>
</tr>
<tr>
<td>Engineering and Mining</td>
<td>7%</td>
</tr>
<tr>
<td>Market Research</td>
<td>5%</td>
</tr>
<tr>
<td>Defence Computing</td>
<td>4%</td>
</tr>
<tr>
<td>Human Resources</td>
<td>2%</td>
</tr>
</tbody>
</table>
1.3 Conclusion

This submission represents the results of descriptive data obtained from the study. The results represent stage one of the data analysis. Still to be done are stage two and three. A model was designed to provide a theoretical structure for the study and as a method to obtain answers to the research questions. Stage two includes the results of the assessment of the model. Partial least squares was used in the assessment of the model. A process of model validation which includes validity tests, hypotheses testing, testing for significance and remodification is still to be done. This validation process will be followed by a discussion of the results (stage three). The completed results and analysis may be obtained at a later stage during the 1st quarter of 2007.