Achieving Project Management Goals in Ghana: The Role of Social Capital.

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Abstract

Underdeveloped countries are plagued by uncompleted and abandoned projects. Some projects exceed their budgets, and some never achieve their performance objectives. Given that social capital provides access to resources to individuals, and organizations, this study examines how social capital contributes to project management performance and goals within organizations in Ghana.

Keywords: Ghana, social capital, bonding, trust, project management

Introduction

Project failures still abound despite the numerous studies on project management and the numerous projects that are undertaken by organizations, including the governments, throughout the world each year. Here are a few examples of technology implementation failures, all within the United States, as reported in Computerworld between 2012 and 2013. The US Air Force announced the cancelation of an ERP project that had already cost $1 billion (Thibodeau, 2013). Avantor Performance Materials lodged a suit against IBM in November 2011 because of problems with the implementation of an SAP-based software. Major Brands, a beverage distributor, sued Epicor in 2013 because the ERP project was deemed useless after a two effort. And a project to modernize case management within the California court system was scrapped even after the state spent over $300 million on the software.

It should not surprise anyone that similar results, as noted above, will be found in underdeveloped countries. Here are a few examples of the outcomes of projects undertaken within tertiary institutions in Ghana. An Olympic size athletic field at a university campus that was began in 2007 is yet to be completed as of January 2015. A four level Business School building which was started in 2005 with a 2 year duration was finished in 2009 with the final cost almost five times the original budgeted cost. And a lecture hall complex at another university that was began in 2005 with a 30 month expected duration was completed in 2011, about 36 months late, with a final cost over 4 times the original cost (Boateng, 2013). For an underdeveloped country like Ghana, such cost overruns and delays drain significant resources from the nation's coffers since a substantial number of projects undertaken within the country are government funded projects, as were the case in the above mentioned examples. The question of interest here is how project success can be improved within organizations.

The literature on project management points to commonly identified factors that contribute to project management success and the eventual attainment of desired project goals and objectives. These include executive management support, project planning, project leadership, involvement of the users (in the case of information technology projects), clear and shared goals, effective communication, the availability of adequate resources etc. (Brown & Hyer, 2010). The availability of resources is normally thought of in terms of skilled personnel (project team members), adequate funding, and the timely release of the allocated funds. In this research we draw attention to a non-traditional "resource" that could potentially contribute to project management success but has not received much attention in the project management literature – social capital.

Social Capital

There are several definitions of social capital. However, in general, social capital refers to an individual's or group's ability to secure or obtain resources, knowledge, and information through relationships with and among other individuals and groups. One of the widely cited definition of social capital is by Bourdieu (1986) who defines it as "the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance and recognition"(p. 248). This definition refers to the

resources, knowledge, and information that accrue to an individual, a company or a collective as a result of the network of social relationships within and between groups of individuals, companies, institutions, and communities that otherwise would not have been possible without those relationships. These relationships can be among *internal* stakeholders of an organisation (e.g., among employees) and between an organisation and its *external* stakeholders (e.g., consumers and regulators).

Broadly, there are three major dimensions of social capital: structural, relational, and cognitive. Each of the dimensions has sub components. Structural social capital refers to "what people do (associational links, networks) which could be objectively verified (by observation or records)" (Harpham, 2008: 51). Structural social capital thus refers to the structure or pattern of connections between actors – whom you reach, how you reach them, and how frequently you share resources and information (Nahapiet and Ghoshal, 1998). Relational social capital "describes the kind of personal relationships people have developed with each other through a history of interactions" (Nahapiet and Ghoshal, 1998: 244). Relational social capital focuses on the quality of the relationship or interactions and the resources that are created or leveraged through the relationships. Its attributes include trust, trustworthiness, respect and friendship. Cognitive social capital refers to "what people feel (values and perceptions)" (Harpham 2008: 51). It represents resources obtained from a common set of goals, a shared vision, and shared representations, interpretations, and systems of meaning among parties. The goal of this research is to focus on the role of relational social capital on project management performance by examining the impact of the social networks and ties on project management success.

This study is carried out using data from Ghana, a sub-Saharan African country. Ghana was selected for this study because, like other less developed countries, most projects within the country are government sponsored with attendant inefficiencies. Culturally, power distance is very high and it is not unusual to hear and read about high levels corruption with regard to the award of contracts for government sponsored projects in the country. At the same time the strong family and social ties among individuals from the same ethnic groups provide a fertile group for the study of social capital. Last political interference rooted in relationships between political appointees and other project stakeholders influences project success.

Hypotheses Development and Research Model

The literature classifies the social networks and ties embedded in the relational dimension of social capital on the basis of the strength and diversity of the ties (bonding, bridging, and linking), the direction of the ties (horizontal and vertical) and the formality of the ties (formal and informal). Putnam (2000) defines bonding social capital consists of "inward looking [networks that] tend to reinforce exclusive identities and homogeneous groups" (p. 22). Thus, bonding social capital refers to horizontal, tightly cohesive ties between individuals or groups sharing similar demographic characteristics such as membership on a project team. It is characterized by homogeneous networks, which tend to be inward-looking. In a project management environment team members will be expected to form bonding ties that enable them to share and communicate information about the project such as project objectives, due dates of project components, status reports, meeting times and agendas, changes to project components

etc. Although Putnam (2000) argues that bonding social capital impedes the intergroup flow of communication and information, we argue that there are some benefits to bonding social capital for project team members. The trustful relationships, ties and connections between the team members will be expected to also lead to the sharing of information within the team which can result in the acquisition of new knowledge that other members of the team did not have. Bonding social capital will also lead to the exploitation of the knowledge resources acquired through the knowledge sharing that could be used to execute project activities. Bonding social capital will also facilitate the coordination and cooperation among the team members for the mutual benefit of managing a project (Putnam, 1995). Also, workers who exhibit strong loyalties to their colleagues as a result of the trusting relationships are less likely to leave enabling the organization to develop core competencies needed to execute projects successfully. Thus we propose the following three hypotheses:

H1a: Bonding social capital will have a positive impact on information sharing among team members in a project management environment.

H1b: Bonding social capital will have a positive impact on knowledge acquisition among team members.

H1c: Bonding Social capital will have a positive impact on knowledge exploitation among project team members.

In contrast, Putnam (2000) defines bridging social capital as open networks that are "outward looking and encompass people across diverse social cleavages" (p. 22). Bridging social capital, therefore, refers to ties that cut across different individuals and groups. This type of social capital is based on heterogeneous and outward-looking connections with individuals from different social groups such as relationships between two different project groups within the same organization or between managers in two organizations (Ferlander, 2007). Thus project teams exhibiting bridging capital will create networks that are linked within their organizations and also spread outside the organization facilitating the mobilization of resources. Bridging social capital will create an opportunity for mobilizing knowledge resources, sharing information, and using the information and knowledge from both outside the team and organization for managing the team's project. The knowledge resources that would be acquired from bridging social capital is likely to be diverse, heterogeneous and add more value to the team's decision-making process, and therefore help in exploitation of the knowledge (Menahem, 2011). The presence of bridging social capital will, thus, enable project team members share experiences with members of other teams, and reach out to those teams for knowledge on practices, and exploit the knowledge for project execution. We state our hypotheses as follows:

H2a: Bridging social capital will have a positive impact information sharing between teams in a project management environment.

H2b: Bridging social capital will have a positive impact on knowledge acquisition between teams in a project management environment.

H2c: Bridging Social capital will have a positive impact on knowledge exploitation between teams in a project management environment.

Linking social capital refers to vertical ties that span different power relationships, connecting individuals across different vertical social strata (e.g., relationships between the project teams in a company and the higher level managers such project sponsors, and senior executives of that company) (Woolcock, 2001). Like bridging social capital, linking social capital provide opportunity for project team members to "access resources and information outside their own social network" (Ferlander, 2007, p. 119). Thus, linking social capital will allow the sharing of information between project team members and colleagues at senior hierarchical levels or senior executives in their organizations. This would imply that project teams will acquire knowledge from upper echelons of organizations that could be used to exploit the knowledge for the management of projects. Moreover, linking social capital will allow team members to seek clarifications on project goals and objectives, and the vision for the project. It will also enable the project teams gain perspectives on where senior managers within stand with regard to the importance of the project. We, therefore, hypotheses that:

H3a: Linking social capital will have a positive impact information sharing among team members in a project management environment

H3b: Linking social capital will have a positive impact on knowledge acquisition among team members

H3c: Linking Social capital will have a positive impact on knowledge exploitation among project team members.

Enhanced information sharing, acquisition and exploitation among team members in a project environment, between members of different project teams, and between team members and higher-ups are expected to bring efficiencies to project processes and thus contribute to project management success. The historical relationships and the ties developed among team members facilitate access to broader sources of information, and information's quality, relevance and timeliness, and thus enhance the level of coordination and interactions with colleagues and contribute to project management success. Thus, we propose the following hypotheses with regard to the impact of the acquired resources on project management success.

H4a: Information sharing gained from social capital contributes to project management performance

H4b: Knowledge exploitation from social capital contributes to project management performance

H4c: Knowledge acquisition contributes to project management performance.

Shared vision and goals about projects as well as the clarity about the roles and expectations are expected to contribute to project success. In addition, the communication among project participants and between project members and other stakeholders, the perceptions about top management support for the project, and the championing roles of senior management which are

all elements of the relationships and ties within the project environment are expected to contribute to project success. Thus, in addition to the direct relationships between social capital and knowledge resources, and between knowledge resources and project management performance, we posit that a direct relationship between social capital and performance. Specifically se state:

H5a: Bonding social capital has a positive impact on project management success

H5b: Bridging social capital has a positive impact on project management success

H5c: Linking social capital has a positive impact on project management success

A summary research model is shown in Figure 1 below.

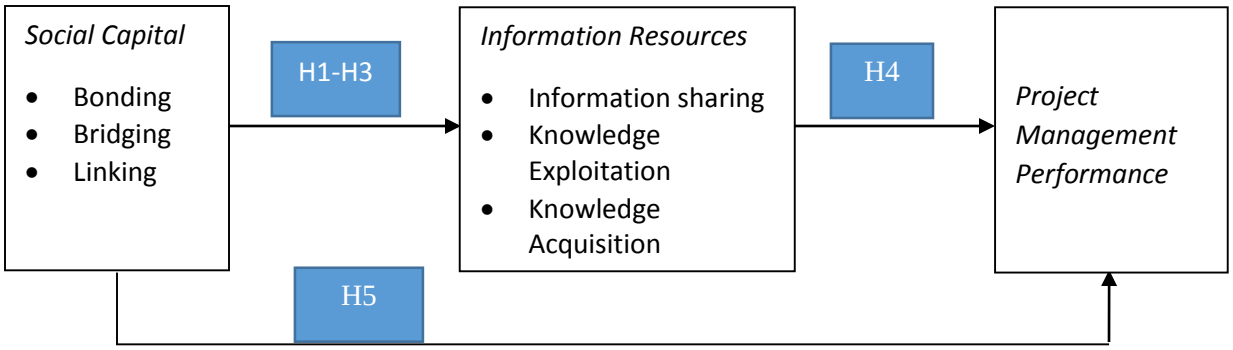

Figure 1-Research Model

Methodology

Data collection

This study was carried out in Ghana using survey questionnaire made up of previously used items for the different constructs. The population base was graduate students pursing executive MBA programs and graduate students in a Master of a Public Administration program at a national university in Ghana. These students, who were all mostly fully employed within different organizations, have been members of project teams and/or served in various project management roles such as team leaders, project managers, sponsors, and team members and thus are appropriate for a study of social capital in project environments. The students were also given additional questionnaires to give to other members in their organizations with some project management engagement. In all one hundred and sixty questionnaires were distributed. We received 105 completed surveys and 100 were used in the analysis. The others were discarded because several incomplete responses.

Measures

There are seven main constructs in this study all measured with multiple items. Likert-type scales with responses ranging from 1 (strongly disagree) to 7 (strongly agree) were used. Bonding social capital was measured with four items that assessed the level confidence, the trust, reliance and feelings among team members. Bridging social capital was assessed with 4 items

that also looked at the trust, integrity, confidence and ties with members of other teams. Three similar items were used for linking social capital but this time with reference to the relationships with senior members of the organization. Information Sharing had 6 items while Knowledge Acquisition and Knowledge Exploitation had 4 items each. Project Management Performance had four items dealing with completion time, within budget, planned performance, and customer satisfaction. The full questionnaire is omitted here for the sake of brevity but is available from the authors.

Reliability & Validity Analyses

Data analysis was carried by means of the Partial Least Squares (PLS) structural equation modelling technique (SEM). PLS is a variance –based SEM approach which has been found to very appropriate for exploratory research (Hair et al. 2014). The software used was SmartPLS. Table 1 shows the results of the reliability analyses as indicated by the Cronback Alpha. The smallest Cronbach alpha was 0.68 factor analyses which is higher than 0.60, considered to be the minimum for exploratory research. All others were 0.70 or higher and none was higher than 0.95 indicating that the measures were reliable and there were no redundant items. The convergent validity was assessed by means of the average variance extracted.

Table 1- Psychometric Properties

Constructs	Cronbach Alpha	Composite Reliability	Average Variance Extracted (AVE)
Bonding Social Capital	0.70	0.81	0.52
Bridging Social Capital	0.72	0.83	0.55
Linking Social Capital	0.68	0.82	0.61
Information Sharing	0.85	0.89	0.57
Knowledge Acquisition	0.79	0.86	0.61
Knowledge Exploitation	0.85	0.90	0.68
PM Success	0.73	0.83	0.55

Table 2: Discriminant Validity Results

Paths	Bonding SC	Bridging SC	Information Sharing	Knowledge Acquisition	Knowledge Exploitation	Linking SC	PM Success
Bonding SC	**0.721***						
Bridging SC	0.436	**0.744**					
Information Sharing	0.618	0.489	**0.757**				
Knowledge Acquisition	0.429	0.326	0.507	**0.782**			
Knowledge Exploitation	0.255	0.269	0.424	0.552	**0.826**		
Linking SC	0.374	0.345	0.454	0.326	0.324	**0.779**	
PM Success	0.441	0.312	0.532	0.353	0.404	0.194	**0.742**

* numbers on the diagonal represent the square root of the AVE

Table 1 also shows the average variance extracted (AVE). All the AVEs are above 0.50 indicating that each construct explains more than 50% of the variance of its indicators (Hair et al, (2014). Discriminant validity is an indication that each construct is uniquely different from other constructs in the model. The square root of the AVE of each construct should be larger than the correlation of that construct with other constructs in order to establish discriminant validity. Table 2 provides evidence that discriminant validity is achieved. The square root of the AVE is larger than the correlations with other constructs indicated below the diagonal.

Results

Figure 2 shows the results of both the measurement and the structural models. A bootstrapping technique was used to test the significance of the path coefficients. The bootstrapping results are shown in Table 3. The results show that Bonding Social Capital has a positive impact on information sharing (β=.442, p=0.000) and knowledge acquisition (β=.309, p=0.014) thus providing support for H1a and H1b. We did not find support for H1c. Bridging social capital has a positive impact on information sharing (β=.223, p=0.017) but no impact on knowledge acquisition or knowledge exploitation providing support for H2a but not for H2b or H2c. Linking social capital has significant impact on information sharing (β=.212, p=0.041) and knowledge exploitation (β=.236, p=0.034) but not on knowledge acquisition providing support for H3a and H3c but not for H3b. Collectively these results indicate that all the three aspects of relational capital contribute positively to information sharing in project management environments. Further, whereas bonding social capital is important for knowledge acquisition, linking social capital is more important for knowledge exploitation in project environments. Bridging social capital does not appear to influence knowledge acquisition or knowledge exploitation.

The path between information sharing and project management success is positive and significant providing support for H4a (β=.355, p=0.021). Similarly, knowledge exploitation has a significant impact on project management success (β=.244, p=0.071), providing support for H4c. We did not find support for H4b; that is knowledge acquisition has no impact on project management success.

We did not find any direct significant relationships between the social capital elements and project management success thus Hypotheses H5a, H5b and H5c could not be supported by our data. However, it appears that information sharing and knowledge exploitation partially mediate the relationships between social capital and project management success.

Discussion and Conclusions

Our major finding from the study is that social capital in the form of bonding, bridging and linking all contribute to project management success by way of their impact on information sharing in project management environments. Thus any effort expended in enhancing the relationships among project members, between different groups of project teams, and between project teams and senior level personal will be beneficial with regard to the achievement of project success. We found limited support for the expectation that relational social capital will contribute to knowledge acquisition and exploitation in the project management environments

and thus enhance project success. The relationships that project team members have with members of other teams does not lead to enhanced information exploitation

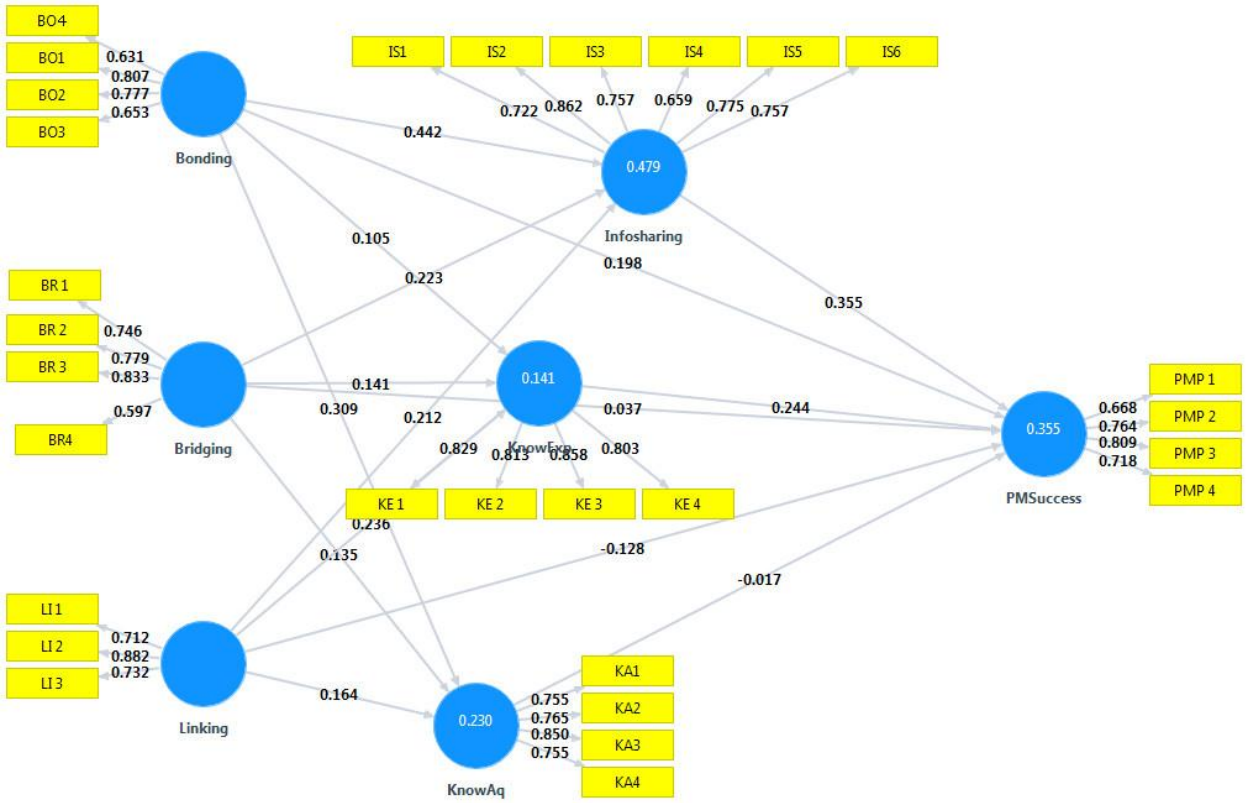

Figure 2: Measurement and Structural Model

Table 3: Bootstrapping Results of Test of Path Coefficients

Paths	Original Sample (O)	Sample Mean (M)	Standard Error (STERR)	T Statistic (|O/STERR|)	P values
Bonding => Information Sharing	0.442	0.432	0.080	5.520	0.000
Bonding => Knowledge Acquisition	0.309	0.325	0.126	2.456	0.014
Bonding => Knowledge Exploitation	0.105	0.115	0.113	0.930	0.353
Bonding => PM Success	0.198	0.197	0.153	1.294	0.196
Bridging => Information Sharing	0.223	0.228	0.093	2.404	0.017
Bridging => Knowledge Acquisition	0.135	0.142	0.119	1.136	0.256
Bridging => Knowledge Exploitation	0.141	0.137	0.123	1.152	0.250
Bridging => PM Success	0.037	0.037	0.123	0.300	0.764
Linking => Information Sharing	0.212	0.228	0.104	2.047	0.041
Linking => Knowledge Acquisition	0.164	0.163	0.118	1.386	0.166
Linking => Knowledge Exploitation	0.236	0.233	0.111	2.125	0.034
Linking => PM Success	-0.128	-0.129	0.106	1.210	0.227
Information Sharing=> PM Success	0.355	0.350	0.154	2.309	0.021
Knowledge Acquisition=> PM Success	-0.017	-0.005	0.164	0.106	0.915
Knowledge Exploitation=> PM Success	0.244	0.249	0.135	1.807	0.071

It is possible that in Ghana although project team teams share information, the information is shared is not used because of perhaps mistrust of the information received. It is also possible that the "fight" for limited project resources among team members hinders the trust needed to use the information acquired.

Similarly, although the exploitation of knowledge contributes to project management success both bridging and linking social have no impact on knowledge exploitation. This might represent a missed opportunity in project management environments. Team members are not utilizing the relationships they have with senior members to enhance their knowledge of project management and improve performance. It is possible the hierarchical nature of relationships between junior and senior staff members within organizations hinder the ability to exploit that knowledge. This is definitely worth further research investigation.

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