

A Relationship of Managing Impacts of FOREX Fluctuations and Organizational Capabilities in Construction Business

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Abstract: *Construction projects are high-risk activities. When undertaking such projects in an international setting, it can be complicated by foreign exchange (FOREX) fluctuation risk. This affects the construction business performance in various ways, namely its progress due to delays, which in turn create further problems, specifically cost overruns as a result of price increase in raw materials, disputes, arbitration, litigation and even, total abandonment. Thus, the effective management of FOREX fluctuations is crucial. Previous studies have focused on the need for contract safeguards, adequate insurance, careful planning and management, as well as foreign exchange futures hedging to address some of the risks triggered by FOREX fluctuations. An analysis of FOREX fluctuations in the international construction industry revealed that more often it was focused on project-specific issues. Currently, there is a relative lack of awareness on Organizational Capabilities (OC), the abilities that owned by the organization, which is essential in managing the impact of FOREX fluctuations. Where research has focused on OC, these are viewed in isolation. Therefore, this study attempts to close the gap by proposing a framework on managing the impact of FOREX fluctuations in the international construction industry, employing the OC perspective.*

Keywords: *Foreign Exchange (FOREX), Organizational Capabilities (OC), Business Performance*

I. INTRODUCTION

Foreign exchange (FOREX) fluctuations risk is considered as significant challenge in the international construction business, as business is strongly affected by these fluctuations (Zhang, 2011; Dikmen et al., 2007; Han et al., 2010; Kim et al., 2009; Ling and Hoi, 2006). When undertaking international projects, construction organizations must take into account the substantial risks related to FOREX fluctuations that affect their business performances.

The financial situation of construction organizations can be adversely affected when the currency of exchange rates fluctuate (Ling and Hoi, 2006). It was found that one of the predominant causes of delay for international construction projects is financial difficulties experienced by the construction organizations (Ismail et al., 2012), which were caused by fluctuations in FOREX. This in turn created some other problems, namely cost overrun, disputes, arbitration, total abandonment and litigation. Not only fluctuations in FOREX cause the price of raw materials to increase but they are also the important cause of cost overruns in projects (Fidan and Dikmen, 2011). Therefore, fluctuations of FOREX are a real challenge for construction organizations doing business in overseas markets (Ofori, 2000).

However, the impacts of FOREX risk on the construction business are still not well managed (Ehrlich et al., 2012). A literature review has shown that most attempts to analyze the risks to the construction business due to FOREX fluctuations has focused mainly on issues at the project level, rather than at the organization level (Yee and Cheah,

2006). When the focus was on the latter, it was in terms of only one capability either financial capability, procurement capability, marketing capability, operational capability or technological capability. Past studies (Bing & Tiong, 1999; Dobrzykowski, 2012; Morgan, 2009; Nath et al., 2010; Wang et al., 2006; Zou et al., 2009) reflect this tendency. It means that the focus should go beyond mitigation itself: it should also ask whether organizations have relevant capabilities to implement the mitigation measures required across related areas of Organizational Capabilities (OC).

This paper aims to better understand the relationship between the impacts of FOREX fluctuations and construction business performance, and also to identify the OC that are required to manage the risk. This is a part of study to develop a framework of OC and business performance to mitigate the impact of FOREX fluctuations.

Based on the previous research, the discussion in this paper has been divided into three main sections: (1) impacts of FOREX; (2) organizational capabilities and; (3) conceptual framework.

II. IMPACTS OF FOREX FLUCTUATIONS ON THE CONSTRUCTION BUSINESS

In business perspective, challenges on FOREX fluctuations are also known as FOREX exposure. FOREX exposure is a measure of the potential for a contractor's profitability, net cash flow, and market value to change because of volatility in exchange rates. FOREX exposure is a risk; and that future changes in a country's exchange rate will hurt the firm as well (Kapila & Hendrickson, 2001). FOREX exposure can be divided into three categories: transaction, operation, and translation exposures (Ahn et al., 2009;

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Bartram et al., 2005; Eiteman et al., 2004; Eun & Resnick, 2007). FOREX exposures can be seen in the context of international construction projects. Transaction exposure can happen where there is a fluctuation of material price because of the instability in FOREX (Chua et al., 2003). This can lead to the cost overruns and delay that is called as Operation exposure (Bing & Tiong, 1999; Chua et al., 2003; Dikmen et al., 2007; Ismail et al., 2012; Florence Ling & Lim, 2007; Shen et al., 2006; S. Q. Wang et al., 2004; Xenidis & Angelides, 2005b).

III. ORGANIZATIONAL CAPABILITIES

Capability refers to the degree to which an organization is structured to achieve the goals that have been set for it (Salaman and Asch 2003), and capability represents the potential dimension of competitiveness from the organization's performance (Chew et al. 2008). An organizational capability (OC) is also defined as "a firm's capacity to deploy resources, usually in combination, using organizational processes, to affect a desired end. They are information based, tangible or intangible processes that are firm, specific and developed over time through complex interactions among the firm's resources", (Amit & Schoemaker, 2006, p.35).

More specifically, OC can be defined as an organization's ability to manage its tangible and intangible assets systematically in order to carry out the tasks or activities in the firm as well. In this study, OC is referred to the abilities that construction organizations are required to have; to manage the impacts of FOREX fluctuations in sustaining the business performance.

Mahdi and Riley (2002) classified five main capabilities for the organizations that are involved in the construction business, namely (1) financial stability (2) past performance (3) experience (4) current capabilities, and (5) work strategy. Wethyavivorn (2009) in his study to survey the strategic asset of construction companies has established a group of organizational capabilities that consist of six capabilities, namely (1) financial, (2) construction, (3) marketing, (4) business management, (5) project procurement, and (6) learning and innovation.

Based on these types of capabilities presented, it seems that some of the capabilities proposed by the previous researchers can be combined as one main capability. This study will be focused on the three OC named as: (1) financial capability; (2) technical capability – which takes in past performance, experiences and work strategy; and (3) business management capability – which subsumes marketing, business management and procurement.

A Financial Capability in Construction Business

Dikmen et al.(2005) in their research also include financial capability as a variable to develop a conceptual framework of organizational effectiveness. Having this capability

illustrates how financial of construction organizations can be used to add value to a current business and at the same time mitigate the impacts of FOREX fluctuations (Bender & Ward, 2008).

The financial capability assessment of organizations can be carried out based on banking arrangements and cash flow. This can be an indicator that they are strongly equipped in managing FOREX risk. Financial capability is a critical source in the international construction business, where it allows construction organizations to maintain the cash flows and profit margins as expected at the bid stage (Ahn et al., 2009).

B Technical Capability in Construction Business

Technical capability is one of the necessary factors for construction organizations to be successful in the construction business. It is embedded under firms' experiences and key personnel (Wethyavivorn, 2009). This capability is referred to as the ability of a company to undertake and perform a variety of direct activities in construction by defining the type, size and complexity for completing projects (Warszawski, 1996; Wethyavivorn, 2009).

Construction organizations must be able to plan, coordinate, monitor, direct and control the project. This capability is very important in preventing a construction project from being abandoned mainly if there is a FOREX fluctuation. Since each construction project is unique, specific capabilities are needed in order to achieve the project completion according to its requirements. Dikmen et al. (2005) also studied the different sources of competitive advantage and identified technical capability as the top priority for construction organizations.

C Business Management Capability in Construction Business

Holt et al. (1994) found that criteria such as management qualifications are important for construction organizations. Their findings recommended selection criteria that measures capabilities in terms of organizational structure, management skills and management qualifications based on previous performance. This includes the capability of construction organization to manage their resources; either direct or indirect resources (Warszawski, 1996).

These resources are needed to be managed in an effective way so that they contribute to the ability of construction organizations to sustain the business performance during the occurrence of FOREX fluctuations. Providing statistical analysis results, Aje et al. (2009) proved that construction organizations that have business management capability not only perform well during prequalification and tender evaluation, but surprisingly that this capability is an asset for construction organizations where it is shown

that the organizations can successfully manage the project's cost and time performance.

V. CONCEPTUAL FRAMEWORK

Hence, from the past literature that leads to the discussion on the OC and the capabilities, a conceptual framework has been developed for this study as Figure 1.0. The conceptual framework also formed by adapting the concept of Resource Based- View (RBV) and the theory of capability.

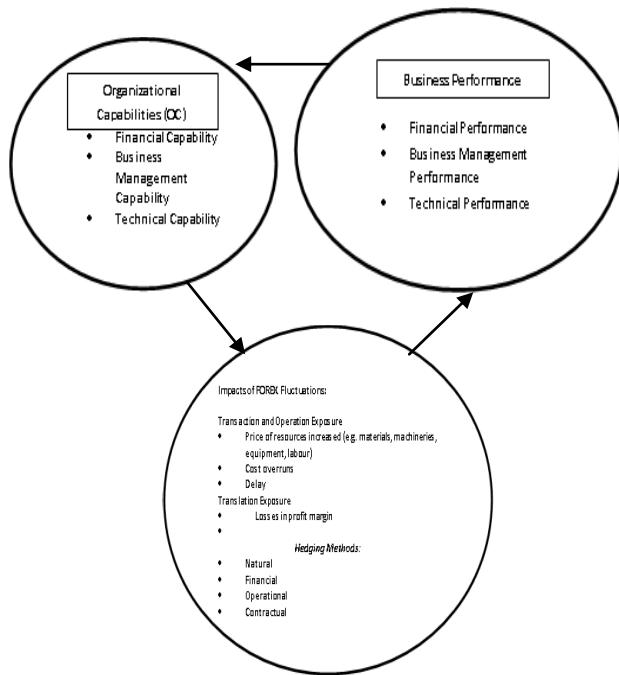


Figure 1.0: The conceptual framework of how the impacts of FOREX fluctuations can be managed from the organizational capabilities perspective.

VI. METHODOLOGY

This study will be conducted as a qualitative study where case studies will be selected among the Malaysian construction companies who have been involved with construction projects in overseas. The respondents that will be representing the companies will be the project managers and financial managers. The face-to-face unstructured interviews will be conducted with the potential respondents.

VII. CONCLUSION

Most of the previous research only focused on the competitive advantages and recommending the mitigation actions on the impacts of FOREX fluctuation but lack of understanding on OC's role to manage the risk. This study is to fill the gaps by focusing on the necessary OC for international construction business to withstand the FOREX fluctuations. This will contribute to enhancing the theoretical understanding of OC; and providing a

mechanism for construction organizations – enabling these organizations to recognize their OC, which are relevant to and can be implemented in order to mitigate the impacts of FOREX fluctuations in sustaining their business performances.

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