Top Management Characteristics and Firm's International Diversification Activities: Evidence from a Developing Nation

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ABSTRACT

Recent trend shows that foreign investment has increased rapidly, and raises a question as to whether managerial characteristics impact international diversification, as claimed by the Uppsala internationalisation process theory. This paper investigates the relationship between top management team's characteristics and firm's Outward Foreign Direct Investment, that is, international diversification. This study focuses on 83 of the top 100 largest Malaysian multinational firms. The entropy measure is used as the proxy for level of international diversification. Age, international experience, educational level and functional background are proxies reflecting the management's cognitive abilities and competencies. The findings showed that age and functional background have significant positive influence on the level of international diversification. In addition, the results also suggested there is a reasonable support for upper echelons theory and Uppsala internationalisation process theory.

Keywords: International diversification, entropy, upper echelons theory, Uppsala internationalisation process theory.

INTRODUCTION

Business environment has changed remarkably in the past few decades. Market liberalisation, economic and industry globalisation have been the impetus for most of the firms to go abroad to invest. Firms are racing against each other in order

to pursue overseas business or investment opportunities that would enhance values to the firm. This strategy is also known as international diversification or Outward Foreign Direct Investment (OFDI).

Uppsala internationalisation process model by Johanson and Vahlne (1977) states experiential knowledge is crucial in firm's expansion to other countries and also management of international operation. This model builds on two assumptions that are based on uncertainty and bounded rationality. First, experience in operations, current activities and understanding of foreign markets drive the change towards OFDI. Second, firms change their business through decision to commit OFDI to strengthen their position in foreign markets. On top of that, the recent updated model by Johanson and Vahlne (2009) mentions the importance of insider rapport as a necessary condition for successful internationalisation. This relationship can enhance the learning curve in a way to build trust and commitment that come with prior experience of top management team (TMT).

At the same time, recent years have witnessed a flourishing of research on CEO and top management characteristics. Upper echelons theory by Hambrick and Mason (1984) suggests that the composition of the TMT creates the foundation for managerial decisions and eventually helps decide a firm's behaviour on strategic decisions. This theory places emphasis on macro-organisational research, and also on dominant coalition of the organisation,

particularly at the YMT level based on their cognitive orientation, values and knowledge base. All in all, the competition among the firms to venture internationally has raised the call for improving or equipping management team characteristics with a set of skills in order to function more effectively under new complex international business environment (Tihanyi *et al.*, 2000) after international entry.

This study focuses on TMT characteristics to determine its influence on the level of international diversification using Malaysia-based multinational firms as an example of multinational firms from developing country. The number of firms investing abroad via international diversification has increased, particularly in this country. Nashir (2010) reported that this country's MNCs are the largest investors in Indonesia with investment totalling RM8.2 billion (US$2.7 billion). Firms such as IJM Plantation, IOI Corporation, Sime Darby Group, United Plantations Bhd. and Asiatic Development Bhd. are among those investing in that country.

According to Arif and Lopez (2007), the major push factors for outward OFDI are increase in wealth of individuals and corporations, high domestic savings, increase in labour costs compared to costs in neighbouring countries, limitations of domestic demand, liberalisation of strategic sectors such as health, education, telecommunication and utilities, and also government's efforts in promoting OFDI. It is said that capital abundance due to high

domestic saving enjoyed from remarkable growth during pre-1997 economic crisis and post-crisis years also contributed to corporations going abroad (Tajul & Amirul, 2010). In addition, Arif and Lopez (2007) noted that government's promotion to go abroad is not new as it started in the 1970s, as part of New Economic Policy (NEP), where the outward-oriented firms are given incentives such as tax exemption and so on. According to Syed (2008) and Syed and Kitchen (2008), technological skills, knowledge capabilities and various government's efforts in promoting expansion have certainly enhanced local firms' global competitive advantage.

There are studies that focus on TMT characteristics and their influences on firm's international diversification strategy such as that by Jaw and Lin (2009) on Taiwan's high-tech firm. The TMT educational background is found to be not important, as reported by Herrmann and Datta (2005) in a US study of manufacturing firms, whereby they mentioned educational background is significant. Wally and Becerra (2001) from a study of US MNCs in European community found education is not significant to international diversification strategy. The conflicting findings from these studies are believed to be due to the country-specific differences or even sample specific.

This study contributes to this literature in the following ways: First, according to Nielsen (2010a), there have been many studies on the importance of firm-level experience of top management. Other aspects remain unexplored such as the impacts of managerial knowledge and expertise at the top management level (Hambrick & Mason, 1984). Therefore, this study attempts to explore the relationship between TMT characteristics and international diversification. The managerial team's attributes (age, educational level, functional background and international experience) are added to other factors used in prior studies.

DEVELOPMENT OF MALAYSIAN MULTINATIONAL CORPORATIONS

FDI in the tested country could be notable as early as during the British colonial period especially in the mining and plantation sectors. The influx of FDI began during the 1980s and 1990s due to strategic policy introduced by the former Prime Minister, Mahathir, in order to propel the economy to become industrialised away from commodity-based economy. This led to promotion of Heavy Industries Policy, which was geared to accelerate industrial growth, in line with the NEP, designed to eradicate poverty, as well as under the National Economic Recovery Plan which helped to serve as a blue print for better management of economy after the 1997-8 financial crisis. However, FDI were mostly in the context of inward FDI.

Outward FDI is considered as relatively new compared to more developed nations such as the US and Japan. Ariff and Lopez (2007) dated inward FDI from mid-1970s. Malaysia's decision to progress via export-orientation had been the contributing

factor on a significant change on the export structure during 1970s and 1980s (Ariffin & Fauzias 2006; Syed, 2008). The formation of ASEAN Free Trade Area in 1992 was one of the added factors on the reshaping of the economic landscape with larger FDI. Since then, FDI has been regarded as one of the main drivers for achieving sustainable high growth and development.

Syed and Fariza (2007) mentioned the fast-changing technology, economic integration, changes in consumer tastes and also increased in global competition as motivating MNCs to go abroad. The introduction tariff-related incentives, financial and non-financial incentives were parts of various policies to encourage internationalisation activities. Establishment of Export-Import Bank of Malaysia is one of the examples that shows commitment to encourage firms to go abroad.

In promoting internationalisation, government-linked corporations (GLC) were the initial movers (Tajul & Amirul, 2010) to take a lead; Petroliam Nasional Berhad (Petronas), Telekom Malaysia Berhad (TM), Sime Darby Berhad and FELDA are some of the GLCs leading the way. Initial foreign market door-opening was done through government-to-government diplomatic initiatives. According to Mahathir (2011), it is important to have friendly relationship with foreign countries because it will create business opportunities and knowledge transfer to local firms. The Look East Policy was part of an effort to gain competitive skills and knowledge from Japan and Korea, as well as Taiwan. Syed and Fariza (2007) noted that Malaysians' participation in OFDI is notable and significant in the global market. UNCTAD (2006) reported that the country is ranked at 32nd position among 128 economies worldwide. It was noted that overseas investments are mainly on oil and gas and services sector, followed by manufacturing, agriculture and construction sectors.

THEORETICAL PERSPECTIVE AND HYPOTHESIS DEVELOPMENT

Top Management Team (TMT)

The definition of TMT has taken centre stage in the literature. TMT definition is based on the original work of Cyert and March's (1963), who referred to it in their "dominant coalition" theory (Carpenter *et al*., 2004). Carpenter *et al*. (2004) showed that individuals at higher level of management are expected to have greater influence on decisions that are strategic in nature. The identification of top team constructs and team membership is often associated with the measurement heuristic (by title or position) of senior management level. Upper echelons studies were conducted by early researchers using the "dominant coalition" as the central construct for TMT. Hambrick and Mason (1984) argued that upper echelon perspective should be of interest because this group and its members provide a crossing point between the firm and the environment.

Finkelstein and Hambrick (1996) introduced "supra-TMT" as a concept to include members of TMT and the board of director into one unit. However, this concept was theoretically and empirically challenged. Fama (1980) stated board of directors and TMT are not the same as both assume distinct roles in firms. Jensen and Zac (2004) highlighted that the "supra TM" concept should be rejected since there was inconsistent evidence that TMT and board of directors be distinguished as a subgroup. Thus, TMT as unit of analysis does not include board of directors of the firm.

Upper Echelons theory suggests that the composition of the TMT creates the basis for managerial decisions and ultimately the behaviour of the firm. Studies belonging to this body of research stated that managers' observable experiences are valid proxies for their cognitive orientation, values and knowledge as subsequently impacting the strategic choices. The psychological factors (beliefs, knowledge, assumptions and values) are of central significance to the upper-echelons theory. This theory places emphasis on macro-organizational research, with emphasis on dominant coalition of the organization, particularly at the top management.

Top Management Team Characteristics and International Diversification

In an earlier research, Tihanyi *et al*. (2000) mentioned that the dominant coalition studies focused on the organizational leadership of individual (CEO) to the entire team of top managers. However, the organizational studies have placed more emphasis on the observable demographic characteristics such as age, tenure, experience in order to predict or explain the relationship between demographic characteristics and organisation's performance. According to Herrmann and Datta (2005), most of the upper echelons studies have focused on CEO characteristic with an implied assumption that absolute decision making power is vested on the CEO.

As discussed earlier, the challenges associated with international diversification strategies are imminent. In order to cope with these challenges, international diversification strategies demand that top managers possess certain cognitive abilities, orientation and competencies that are acquired through experience and education. The upper echelon theory associates top managers' experiences and education with their cognitive ability and competencies. The upper echelon theory argues that experience, education, and functional background of the top managers, among others, influence their cognitive ability and strategic decisions. The upper echelon theory sees top managers as powerful actors that make effective strategic decisions that enhance firm competitiveness and performance. Similarly, internationalisation process theory stresses on the importance of managers' prior knowledge and experiences which serves as valuable contributors to their

networking experiences to better facilitate firms' international diversification strategy. The insights from internationalisation process theory provide links to the upper echelon perspective via managers' ability to make effective strategic decision.

Top managers with more international experiences, education and diverse functional background make effective decisions to minimise risks than managers with lesser experiences and education, or similar functional background. Top managers who possess more of such characteristics make effective strategic decisions such as thorough evaluating multiple options for new opportunities, minimising risks and uncertainties that characterise venturing into international business, as well as sustaining firms' competitiveness. Thus, a firm's strategic decisions are strongly influenced by the background characteristics and previous experience of the manager (Child, 1974; Hambrick & Mason, 1984). Therefore, integrating the insights from the upper echelons theory and Uppsala internationalisation process theory, the current research used the background and experiences of TMT members as having considerable influences on a firm's strategic choice relating to internationalisation strategies.

i TMT Age

Wiersema and Bantel (1992) mentioned that earlier research had shown younger managers were correlated with more strategic change behaviour. Meanwhile, older executive are said to be less willing to settle in to new ideas (Bantel & Jackson, 1989). This is due to the career stage factor where financial security is essential and risk-taking behaviour is seen as a career threat (Wiersema & Bantel, 1992). According to Tihanyi et al. (2000), strategic change initiative is more attractive to younger and more energetic managers who are willing to indulge in risk-taking behaviour. As mentioned by Hambrick and Mason (1984), older executives may incline towards status quo. They also noted that younger managers have the tendency towards "attempting the novel, the unprecedented, taking risk". The updated Uppsala internationalisation process model theorises that the level of international diversification is positively related with knowledge and experience of the managers. Experience and knowledge are generally associated with older executives. In contrast, older executives typically possess less physical and mental stamina (Child, 1974) and also fewer information-processing abilities (Herrmann & Datta, 2005). Although recent study shows insignificant relationship, it is believed that age will influence firms' level of international diversification. Therefore;

H1:The higher average age of TMT member is negatively associated with the level of international diversification.

ii TMT International Experience

Adler and Bartholomew (1992) suggested development of managers' cross-cultural skills and lessening chauvinist attitude

contributes to ineffectual international careers through international experience. Sullivan's (1994) work indicates there is an association between TMT international experience and international diversification. On the other hand, Sambharya (1996) found that the level of international background was positively related to international diversification due to a number of reasons. Finally, according to Tihanyi *et al*. (2000), international assignment may establish a manager's rapport with or contact, which will become useful in facilitating future global ventures. Network theory also indicates that inter-organisational and interpersonal relationships from business and social networks shape firms' behaviour on internationalization. Therefore;

H2: The higher percentage of TMT member with international experience is positively associated with high level of international diversification.

iii TMT Educational Level

The educational level of managers has been associated with their cognitive orientation and knowledge base (Hermann & Datta, 2005). Managers with above average educational level are expected to have more tolerance for ambiguity which is vital in seeking and evaluating multiple options for new opportunities. For instance, Datta and Rajagopalan (1998) and Wiersema and Bantel (1992) have linked educational background with greater innovation, knowledge, skills and openness to change. Grimm and Smith (1991) pointed out that TMT employed

strategic changes were more likely to hold an MBA degree. Therefore, managers' socio-cognitive abilities play important role on internationalisation success (Herrman & Datta, 2005). However, Herrmann and Datta (2005) argued that high level of education is occasionally detrimental to decision-making due to excessive analysis. In respect of the logical link between educational level and socio-cognitive capacities, it is hypothesised that:

H3: The higher average educational level of TMT members is positively associated with high level of international diversification.

iv TMT Functional Background

Functional background is an indicator of cognitive biases and the type of knowledge they bring on to the job (Walsh, 1988) in terms of critical job knowledge and skills that are contoured by their functional experiences (Herrmann & Datta, 2005). Michael and Hambrick (1992) found TMT's core specialisation to have influence on the nature of diversification that firms would or could undertake. In relation to team's functional heterogeneity, Bantel and Jackson (1989) found that diverse functional background among TMT is associated with innovation among banking firms. Wally and Becerra (2001) support the findings of earlier studies, i.e. TMT's diverse functional expertise was found to be positively related to international diversification strategy among US MNCs in the European Community. Herrman and Datta (2005) found that there was no significant relationship between

functional background and international diversification. Therefore:

H4: High diversity of functional experience among TMT members is positively associated with international diversification.

RESEARCH METHODOLOGY

The section presents related models and discussion on the sample size and variables used as proxies for TMT characteristics, diversification and control variables. In addition, data processing and analysis used in this study are also explained.

Model I: $D_i = \alpha + \beta_1 MC_i + \beta_1 ROE_i + \mu_i$

Model II: $D_i = \alpha + \beta_1 Age_i + \beta_2 Exper_i$
$$+ \beta_4 Background$$
$$+ \beta_5 MC_i + \beta_6 ROE_i + \mu_i$$

Where (D) represents international diversification, MC is log of market capitalization that captures firm size, Age is CEO's Age, Exper is international experience, Background is functional background, ROE is return on equity, and (μ_i) is error term.

Sources of Data

This study used secondary data from the annual report of the MNCs and Capital IQ database. Meanwhile, demographic data such as age, international experience, education and functional background were extracted solely via content analysis of TMT biographic information from firms' annual reports and Capital IQ

database. Target sample consisted of listed Malaysian MNCs that have invested abroad extensively over the previous five years. In addition, the target sample must be listed and ranked as the largest hundred over 5 years prior to the sample period in order to qualify. Based on these requirements, the final sample was 83 MNCs.

Variables Selection and Analysis

There are five variables: entropy as measure of multi-nationality or diversification level is the dependent variable, while the other four are age, international experience, education and functional background. On the other hand, more variables [namely, market capitalisation and Return on Equity (ROE)] were also used as control variables.

The diversification strategy undertaken by firm, as indicated by the multi-nationality level, was measured via the entropy measure. This measure was used in Qian (1996) who provided an indicator signifying multinationality (Sullivan, 1994). Thus, the entropy is characterised by a multi-dimensional measure because it takes into consideration both the spread and the amount of international expansion. Hitt, Hoskisson and Kim (1997) mentioned that entropy measure considers both the number of global market regions in which a firm operates and the importance of each global market region relative to total assets. Using Qian's (1996) approach, the entropy measurement involves calculation of the number of subsidiaries in any one country relative to the total foreign holdings held by the firm. The entropy formula as follows:

$$D = -\sum_{i=1}^{n} S_i \, log_e (1/ S_i) \qquad (3)$$

Where,

D: Index of multinational diversification computed at the end of the observed period. Si: Number of subsidiaries in the country i or region i to the total number of foreign subsidiaries.

TMT age was computed as the average age of executives in the TMT members, as in Hermann and Datta (2005). Biographical information in the annual report Capital IQ database was inspected to determine the age of all members of the top management team. Then, data of the age of the TMT was aggregated to calculate the mean to find the average age at firm level.

Datta and Rajagopalan (1998) adopted seven-point scale on the highest degree earned: (1 = high school, 2 = some college, 3 = undergraduate degree, 4 = some graduate school, 5 = master's degree, 6 = attended doctoral programme and 7 = doctorate) as measures on educational level, while Wally and Becerra (2001) adopted three-point scale as follows; 1 = Bachelor degree or less, 2 = Master's degree, and 3 = PhD. In this study, the scale was modified to five-point scale while maintaining the scale concept used by Datta and Rajagopalan (1998) as educational measures; (1 = Diploma and lower, 2 = Bachelor degree, 3 = Professional qualification, 4 = Master degree, and 5 = Doctorate). Thus, TMT educational level was measured as the average educational level of TMT from the assigned score of each individual member. Then, the score of TMT educational level

was aggregated to calculate the mean to find the average educational level for each firm.

Functional background of the TMT members was classified based on their functional experience prior to the current function and comparison was made against the Bursa Malaysia core industry classification that firms are operating. This classification was partially adopted the method used by Wally and Becerra (2001), where the current and past functional titles were used to make such classification as proxy of TMT diversity. Individual TMT member was coded one and zero as indicators of member non-core function and core function members, respectively. Core function refers to TMT member with operational background directly related to the industry classification, while non-core function refers to TMT member who is not directly related to the operation. The score for each firm was assigned based on the current and past title position which was then aggregated and a simple percentage calculation was done to determine proportion of TMT with non-core functional experience.

Based on the past literatures on the practice of international diversification studies, this study controlled for firm size (log of firm market capitalization) and ROE (firm average on equity for the last five years). Both the variables have been associated with higher levels of international diversification.

Upon completion of individual level data collection, the gathered data were

aggregated in the following manner: age and educational level values were aggregated separately and the mean of each variable was calculated to determine firm level average, respectively. Meanwhile, simple calculation of percentage was computed based on individually-coded international experiences and functional background in order to measure TMT's diversity.

Multiple regression was used to determine the possible relationship between Dependant Variable (Entropy) and Independent Variables (age, international experience, education level and functional background with the presence of Control Variable (market capitalisation and return on equity). Given the nature of the subject, this method has been widely used despite many potential statistical issues on the reliability of the parameters from this procedure.

RESULTS AND DISCUSSION

Table 1 is a summary of descriptive statistics and correlations matrix. The statistics indicates that none of the correlation coefficient among the independent variables is large enough to suggest the existence of multicollinearity in the regression equation. In order to test H1 to H4, two sets of Ordinary Least Squares (OLS) regression model were run. Model I includes the control variables, whilst Model II includes all the variables.

The results are summarised in Table 2, which indicates that the incremental R^2 between model II and model I (R^2 of 0.277 versus 0.079). This finding suggests that TMT characteristics jointly explain the dependent variable only partially. The results are also similar to the reports in the previous studies, whereby size and performance of the firm have been found to be associated with international diversification.

For Hypothesis 1, it was found that the hypothesis is not supported. The result is contrary. Higher age is positively associated with international diversification. This brings to the notion of Uppsala internationalization process model by Johanson and Vahlne (2009) that prior experience is of value that may influence firm to engage international diversification strategy. Therefore, logically the higher the age the more experienced the management, especially with networking they bring into their respective jobs. Johanson and Vahlne (1977) also mentioned that international expansion is an incremental process with knowledge of the firm. Thus, it can be assumed that higher age is related to the knowledge and experiences of the management.

As hypothesised in H2 and H3, it was observed that international experience and educational level are not significantly related to international diversification. This is contrary to the findings by Herrmann and Datta (2005), which revealed that educational level and international experience of TMT were significantly associated with international diversification. However, this study confirms the findings of Wally and Becerra (2001) in the context of U.S. multinationals in the European Community that educational level and international

experience are not significantly associated with strategic change in international diversification. This conflicting finding is also found in the literature. TMT international experience somehow does contribute to firms' behaviour towards international diversification strategy.

On the final hypothesis (H4), it was anticipated that the functional background of TMT would be positively associated with international diversification. In this study, a significant association was found between TMT functional background diversity and international diversification. The findings confirm the earlier study by Wally and Becerra (2001). The study also supported Jaw and Lin's (2009) findings from the study on corporate elite characteristics and firm's internationalisation of Taiwanese firms operating in technologically diverse TMT increases cognitive homogeneity; they also found that it enables overcoming of 'group-think' at the top of the firm. Therefore, the heterogeneous ability within TMT construct can create synergistic assistance in foreign market issue problem solving.

CONCLUSION

Internationalisation has increased significantly in the recent decades and it is becoming a trend among Malaysian MNCs. Economic and market liberalisationn have been among the pushing factors that prompt international diversification strategy of firms. Advancement in technology such as communication, transportation and information technology

has certainly changed the business landscape with globalisation that can make product to be sold anywhere around the world. Mohammadreza *et al.* (2010) noted that MNCs' behaviour, as well as expansion strategies, has affected today's globalisation of business environment. For instance, China, which famously practised a closed economy policy, was forced to liberalise her trade policy to acknowledge the opportunities presented to China in the era of globalisation.

Although international diversification strategy is relatively new to this country compared to more developed nations, its adoption is inevitable because it presents opportunity of new markets. According to the upper echelons theory, firm's behaviour towards any strategic decisions is the reflection of its managerial skills and cognitive abilities, while Uppsala internationalisation process model stresses on the importance of experiential learning and networking that build commitment and thrust towards international venture. This is based on the assumption of 'uncertainty and bounded rationality' that drives firms towards international diversification strategy.

This study found that there is a linkage between upper echelons, as suggested by the Uppsala internationalisation process model. As anticipated earlier, diverse functional background of TMT is positively associated with international diversification. It was found that the more diverse the TMT background, the more significant the association would be with

international diversification. Diversity of functional background indicates the level of experiences and skills; thus, it confirms both upper echelons theory and Uppsala internationalisation process model that international diversification moves parallel with the level of experiential knowledge.

However, it was found that Uppsala model stands up against upper echelons perspective when TMT average age shows a positive relationship with international diversification. Logically at the older age, one will have more experience and knowledge than younger executives, thus resulting in more accurate and faster judgment. This also implies support for the Uppsala internationalisation process model on the experiential knowledge influence on international diversification.

On the other hand, educational level and international experience were found to have insignificant influence on international diversification. Although the measure used is consistent with that of earlier studies, the results are in contrast with some of the previous literatures. Nonetheless, the results of this study almost mirrors those in Wally and Becerra's (2001) study, which also found educational level and international background as not significantly associated with international diversification. The insignificance of educational level is confirmed as in Herrmann and Datta's (2005); TMT characterised by high educational level sometimes leads to excessive analysis which can be a detriment to the decision making process. Though international experience was found to be insignificant, it is still believed to provide some added values in decision making.

Therefore, the findings of this study also suggest that certain TMT characteristics are relatively strongly associated with international diversification. This goes in line with the high levels of ambiguity and uncertainty in the international business environment that require certain TMT characteristics to help firms face fierce competitions. In addition, Uppsala internationalisation process model stresses on the importance of management's prior knowledge, which also serves as a valuable contributor to networking experience. Networking at the upper echelons facilitates firms' international diversification strategy.

TABLE 1
Correlations matrix

	Variables	Means	Std Dev	1	2	3	4	5	6
1	Entropy	0.35	0.11	-					
2	TMT average age	51.56	2.62	0.095**	-				
3	TMT international experience	0.10	0.12	-0.024	-0.033	-			
4	TMT educational level	2.64	0.81	0.007	-0.087	-0.036	-		
5	TMT functional background	0.47	11.32	0.230**	0.155	0.123	-0.049	-	
6	Market capitalisation	0.23	2.48	0.276*	-0.102	0.063	-0.071	0.038	-
7	Return on equity	3.37	2.34	-0.093	0.185	0.106	-0.124	0.143	0.336**

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed)

TABLE 2
Result of OLS regression (TMT characteristics and international diversification)

Variables	Model I (Control Variables)	Model II (Full Model)
TMT average age		0.013***
		(0.000)
TMT international experience		-0.077
		(0.704)
TMT educational level		0.033
		(0.707)
TMT functional background		0.576**
		(0.002)
Market capitalisation	0.153	0.133
	(0.000)	(0.000)
Return on equity	-0.014	-0.005
	(0.000)	(0.000)
R-squared	0.079	0.277
Constant	1.07	-0.923
N	83	83
F	4.342***	9.645***

Standard Errors in parentheses
**. Significant at 0.05 level (2-tailed).
***. Significant at 0.01 level (2-tailed)

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