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Transformational Leadership and Business Performance: An Insight From Technology-based SMEs in Malaysia

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Abstract

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Many researches have been conducted on leadership styles and business performance in Malaysia. However none of these researches specifically studied transformational leadership and business performance from the perspectives of technology-based SMEs. This paper serves two purposes. First, the authors aim to identify the critical dimensions of transformational leadership and business performance. Second, this paper intends to determine the relationship between transformational leadership and business performance. This study used a quantitative method approach using survey questionnaire. 86 respondents who are the owners or top managers of technology-based SMEs in Malaysia took part in the study. The analyses conducted involved factor, reliability and correlation analysis. The results of factor analysis proposed three dimensions representing transformational leadership, i.e. enthusiastic optimism, idealized influence and individual consideration which is contrary to the four dimensions theorized by Bass and Avolio (2004). In addition, business performance generated a one-factor-dimension. The correlation analysis indicates there is a significant and positive correlation between transformational leadership and business performance. The originality of this paper lies on being the first to examine the transformational leadership and business performance in technology-based SMEs in Malaysia.

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Keywords: Transformational leadership, Business performance, Technology-based SMEs.



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1. Introduction

The success and failure of a business depends largely on the leadership styles practised by leaders. Jeremy, Melinde and Ciller (2012) described the relationships between the leader and employees are significantly influenced by the leadership style practiced by the leader. Leadership style in an organization is one of the factors that play a significant role in enhancing or retarding the interest and commitment of the individuals in the organization (Obiwuru, Okwu, Akpa & Nwankwere, 2011). There are various types of leadership styles which have been developed by scholars in managing different types of organisation or to achieve different goals.

Growing economies are now looking at high-technology sectors such as bio-technology, nano-technology, ICT and many more as these are the main source of future economic development (Cooper, 2006). Technology-based firms have an impact on economic growth, job opportunities and many innovations as explained by Massa and Testa (2008). Despite the importance of technology-based firms towards the economy, limited studies have been found focusing on technology-based firms (Majid, Ismail & Cooper, 2011; Ajagbe, Choi, Aslan & Ismail, 2012; Arshad, Rasli, Mustafar & Norhalim, 2013; Arshad, Goh & Rasli, 2014; Arshad, 2016). Many researches have been studying leadership styles where majority concentrated in SMEs (Yang, 2008; Yildirim & Saygin, 2011; Arham & Muenjohn, 2012). Thus, the present study is important and timely since no researches specifically studied transformational leadership and business performance of technology-based SMEs. This paper serves two purposes. First, the authors aim to identify the critical dimensions of transformational leadership and business performance. Second, this paper intends to determine the relationship between transformational leadership and business performance. The first section of this paper provides a brief overview of transformational leadership followed by research methodology, findings and finally discussion and conclusion were presented.

2. Literature Review

Leadership styles are described as the means of how leaders' interact with employees. Lawal (2012) reported leadership style is related with leaders' behaviour towards subordinates. Leadership style in an organization is one of the factors that play a significant role in enhancing or retarding the interest and commitment of the individuals in the organization (Obiwuru, Okwu, Akpa & Nwankwere, 2011). The study of leadership styles is an extension of understanding behaviours and attitudes as reported by DuBrin (2010). Studies have shown that in order to improve performance, character traits and leadership styles both play an important role. This is because there is a direct involvement of leaders with employees and thus affects them directly. However, different employees may exhibit different behaviours under different types of leadership styles (Arshad, 2016). This study focuses on transformational leadership introduced by Bass and Avolio (1997).

The concept of transformational style was first introduced by Burns (1978) and Bass (1985). Transformational leadership style is about inspiration and charisma. This style involves leaders to come up with a strategic and clear vision and communicate it effectively with their subordinates (Bass,

1985). Transformational leadership focuses on what the leader accomplishes and yet still pays attention to the leader's personal characteristics to the group members (DuBrin, 2010). A transformational leader strives to make changes within the organization for the purpose of moulding it into something different. This is done to prepare the organization for challenges, such as handling new technologies or new incumbents. There are four factors of transformational leadership-idealised influence, inspirational motivation, intellectual stimulation and individualized consideration - which are discussed accordingly.

Idealized influence is the behaviour that arouses strong follower emotions and identification with the leader (Yukl, 2006). It occurs when leaders will set an example of courage and dedication and making self-sacrifices to benefit followers. Leader encourages followers with a clear sense of purpose (Tracey & Hinkin, 1998). Leaders will act as role models and influence employees to put the good of the organization above their self-interest (Arshad, 2016). Northouse (2013) affirmed this type of leader has a strong role model for the followers. Inspirational motivation involves leaders who are able to inspire and also motivate followers to behave appropriately (Arshad, 2016). Leader with inspiring motivation tend to behave in ways that motivate and inspire people around them by providing meaning and challenge to their followers' work (Bass & Riggio, 2006). In inspirational motivation, the leaders articulate a compelling vision, set attractive goals and is confident employees will achieve them (Alimo-Metcalfe & Alban-Metcalfe, 2001).

The individualized consideration leader will ensure that the followers will get individual attention by treating them separately, advising and coaching each of them (Bass, 1990). Bass and Riggio (2006) further assert that to achieve goals and growth, leaders need to act as coach and mentor by giving attention to each individual followers' needs. In other words, the individualised consideration leader treats employees as individuals rather than as members of a group and pays special attention to their needs for development by acting as a coach or mentor (Bass & Riggio, 2006). Intellectual stimulation leaders allow employees to be creative and innovative in their work activities (Avolio & Bass, 2004). Employees are allowed to use their imaginative ways in solving problems and are being encouraged to try new ways of doing things, though it differs from the leaders' views (Avolio & Bass, 1991). The leader stimulates employees to be innovative and creative by questioning assumptions and approaching old situations in new ways (Bass & Riggio, 2006).

Some studies have identified business performance as a multidimensional construct (Walker & Ruekert, 1987; Wiklund & Shepherd, 2005). A study by Rasli, Norhalim, Tan and Nik Mustaffa (2014) indicated that technology-based SMEs require the interplay between value creation and managerial competencies to attain performance. According to Li, Rao, Ragu-Nathan and Ragu-Nathan (2005), performance can be measured in terms of market performance and financial performance which consists of organization's profits, return on investments (ROI), market share and sales growth. Recognizing that business performance is multidimensional and coincides with earlier research, this study will adopt these two dimensions in measuring business performance. This is in line with studies by Narasimhan and Kim (2002) as well as Lin, Chow, Madu, Kuei and Pei (2005).

3. Research Method

This study uses a quantitative method approach based on survey questionnaire to answer the following research questions:

- (i) What are the critical dimensions of transformational leadership and business performance
- (ii) What is the relationship between transformational leadership and business performance

As database for technology-based SMEs are not readily available, the researchers has approached Malaysian Technology Development Centre (MTDC), an integrated venture capital company for assistance which has been entrusted by the Malaysian government in overseeing the development of technology-based firms in Malaysia. This study adopts the definition by Arshad (2016) where technology-based SMEs is defined as SMEs that follow the general admission policies, comply with the clusters listed by the Ministry of Science, Technology and Innovation (MOSTI) and involved in commercialization of research and development (R&D) activities and acquisition of foreign technologies.

The Multifactor Leadership Questionnaire (MLQ) which comprise of 15 items with four dimensions by Avolio and Bass (2004), i.e. idealized influence, inspiring motivation, individualized consideration and intellectual stimulation was adapted to measure transformational leadership. For business performance consists of two dimensions, i.e. growth and profitability, whereby the questionnaire was adopted from various studies (Narasimhan & Kim, 2002; Wiklund & Shepherd, 2005; Yusuf, 2002; Knight, 2000). A total of 150 questionnaires were distributed to technology-based firms using a simple random sampling method of which 100 firms responded to the survey. After inspection, only 86 responses were deemed to be usable. The respondents are owners or top managers of technology-based SMEs in Malaysia as they have the knowledge and expertise with regards to the establishment, operation and direction of the firm (Che Senik, 2010). Data obtained were analysed through using SPSS to perform factor analysis, reliability analysis and correlation analysis.

4. Findings

The first test conducted was factor analyses in which items with factor loading below 0.6 was removed as suggested by Hair, Black, Babin and Anderson (2009). Subsequently, reliability tests based on Cronbach's alpha of not less than 0.6 was applied to ensure reliability of the instrument (Loewenthal, 2004; Sekaran, 2003). The factor analysis proposed five items were removed leaving ten items for analysis. In addition, three components were proposed to represent transformational leadership which is one less than the findings by Bass and Avolio (2004). The first factor to emerge consists of items from intellectual stimulation (IS) and inspirational motivation (IM). This component has been labelled as "enthusiastic optimism" with item loadings ranging from 0.634 and 0.757. The remaining components were consistent with previous dimensions theorized by Bass and Avolio (2004), i.e. idealized influence (II) and individual consideration (IC) with loadings ranging from 0.618 to 0.820 and 0.730 to 0.743 respectively. The value for KMO was 0.831 indicating the adequacy of sampling

and is significant in factor analysis. Collectively, the three factors explained 52.56% of the total variance. The reliability test for transformational leadership and its three dimensions were observed to be above the recommended value of 0.6. Hence, it can be concluded that all the items were reliable for further analysis. The results of the analyses are presented in Table 1.

Table 1. Factor Analysis and Cronbach’s Alpha for Transformational Leadership

Transformational Leadership	Factor 1 enthusiastic optimism	Factor 2 idealized influence	Factor 3 individual consideration
Seeks different perspectives in problem solving	0.757		
Articulates a compelling vision of the future	0.694		
Encourages creativity in work assignments	0.670		
Expresses confidence that goals will be achieved	0.634		
Leads by example		0.820	
Acts in ways that build respect from others		0.671	
Displays sense of power and confidence		0.618	
Helps others develop their strength			0.743
Considers the feelings of others			0.738
Spends time teaching and coaching others			0.730
Looks at problems from different angle (*)			
Specify a strong sense of purpose (*)			
Talk about beliefs and value (*)			
Optimistic about the future (*)			
Talk enthusiastically about what needs to be accomplished (*)			
Kaiser-Meyer-Olkin (KMO)		0.831	
Eigenvalue	3.371	2.420	2.092
Cumulative Variance Explained (%)	22.476	38.611	52.556
Cronbach’s Alpha (dimension)	0.734	0.674	0.695
Overall Cronbach’s Alpha		0.773	

(*) Loadings below 0.6

Results of factor analysis for business performance had revealed all items had loaded very well on a single factor indicating that the scale is uni-dimensional. The value of KMO is 0.797 which were above the acceptable level for factor analysis with a total variance of 63.54%. The generated Cronbach’s Alpha of 0.882 shows the instrument is well above the recommended value of 0.6. Table 2 depicts the results of business performance.

Table 2. Factor Analysis and Cronbach’s Alpha for Business Performance

Business Performance	Factor 1
Gross Profit Margin (GPM)	0.841
Market growth	0.827
Return on Asset (ROA)	0.819
Return on Investment (ROI)	0.784
Employment Growth	0.759
Sales Growth	0.748
Kaiser-Meyer-Olkin (KMO)	0.797
Eigenvalue	3.813
Cumulative Variance Explained (%)	63.543
Cronbach’s Alpha	0.882

(*) Loadings below 0.6

A correlation analysis based on the objective of the paper was performed to determine the relationship between transformational leadership and business performance. The results of the study shown in Table 3 indicate significant and positive correlations were observed between transformational leadership and business performance. The beta coefficient values for dimensions of transformational leadership are in the range of 0.281 (enthusiastic optimism) to 0.349 (individual consideration). These correlation coefficient size demonstrated small to medium effect as described by Cohen (1988) where only individual consideration has a medium effect while the other two dimensions indicate small effect. When computing transformational leadership as a single measure, the result shows significant and positive correlation with business performance. The transformational leadership demonstrated medium effect with beta coefficient of $\beta=0.408$.

Table 3. Transformational Leadership and Business Performance

Constructs		Business Performance
Enthusiastic optimism	Pearson Correlation	0.281*
	Sig.	0.009
Idealized influence	Pearson Correlation	0.291*
	Sig.	0.007
Individual consideration	Pearson Correlation	0.349*
	Sig.	0.001
Transformational leadership	Pearson Correlation	0.408*
	Sig.	0.000

Note: n=86

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

5. Conclusions and Recommendations

The aim of this paper is to identify the critical dimensions of transformational leadership and business performance and to also to determine the relationship between transformational leadership and business performance. The study found that from the factor analysis, the transformational leadership dimensions differ from the theorized dimensions of Bass and Avolio (1997) where the items were grouped into three factors while business performance is measured as a single dimension. Two dimensions which were idealized influence and individual consideration are retained as it corresponded with Bass and Avolio's (1997) original dimension. However, two other factors of Bass and Avolio's (1997) were grouped together as a single factor, i.e. items representing intellectual stimulation and inspirational motivation) is relabeled as enthusiastic optimism. In addition, the results of the study appear to complement with those by Nguyen (2009), Politis (2002), Den Hartog, Van Muijen and Koopman (1997) and Bycio, Hackett and Allen (1995). Nguyen (2009) reported transformational leadership items were loaded into two factors; i.e. attributed charisma and individualized consideration. On the other hand, Politis (2002) reported three dimensions for transformational leadership which are attributed charisma, individualized consideration and intellectual stimulation. Finally, only one study measured transformational leadership as a single dimension (Bycio, Hackett & Allen, 1995). The researchers conclude that the dynamism of leadership styles of technology-based SMEs contribute to the reclassification of Bass and Avolio's (1997) transformational leadership dimensions.

As mentioned earlier, business performance was consolidated into a single dimension which concurs with many earlier studies (refer Narasimhan & Kim, 2002; Yusuf, 2002) as the findings of this study indicated that top management of technology-based SMEs in Malaysia viewed business performance as a single construct. These inferred respondents' perceived profitability and growth are correlated. They viewed the performance of the firm (growth and profitability) in an almost interchangeable way, i.e. growth is aligned with profitability. As described by Garg, Joubert and Pellissier (2004), growth of profitability is a major concern as profitability still remains the key measure of business performance. The findings of this study also coincide with studies by Shehu and Mahmood (2014), Kim-Soon and Jantan (2010) and Chi, Kilduff and Gargeya (2009) where business performance is measured as a single dimension. From the correlation analysis, the findings showed there was a significant relationship between transformational leadership and business performance. A small to medium effect were demonstrated between the dimensions of transformational leadership as well as transformational leadership and business performance. This is consistent with earlier studies by Arham (2014), Arshad (2016) and Samad (2012).

Given that studies on technology-based SMEs are often being neglected, the present study tried to approach this sector of economy as it also contributes to the growth of Malaysian economy. In addition, this study only focuses on transformational leadership and business performance from the perspectives of technology-based SMEs. Future studies can be carried out that cover a wider range of respondents and preferably, a comparative study can be conducted to investigate the differences between technology-based SMEs and non-technology-based SMEs. Moreover, other types of leadership styles can also be conducted to see its influence towards business performance.

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