

Linking Transformational Leadership and Corporate Entrepreneurship to Performance in the Public Higher Education Institutions in Malaysia

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Abstract

The objectives of this study are to determine the significant relationship between transformational leadership and performance of academic leaders, and the significant relationship between corporate entrepreneurship and performance of academic leaders. This study is also aimed to determine the mediating effect of corporate entrepreneurship on the relationship between transformational leadership and performance. A quantitative research design based on the questionnaire survey was used to collect the data. A total of 246 usable responses were received from academic leaders of twenty public universities throughout the country. The findings reveal significant and positive relationships between transformational leadership and performance, and corporate entrepreneurship and performance. In addition, corporate entrepreneurship was found to partially mediate the transformational leadership and performance relationship.

JEL classification numbers: G34, L26

Keywords: Transformational leadership, corporate entrepreneurship, performance, academic leaders

1 Introduction

The emergence of knowledge economy and new movements in the society has challenged the traditional ways of managing the public higher education institutions (HEIs). The technological advances and an increasingly public demands coupled with the decreased in the traditional sources of funding and increased in the operation costs are putting pressure on the HEIs to remain competitive and maintain a sustainable growth (Mahmood, 2013). This changing landscape requires the public HEIs to be adaptable and diverse, and meet

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those challenges by responding innovatively (Nayyar & Mahmood, 2014). One of the commonly accepted tasks of transforming HEIs to higher performance is effective leadership because leaders are in the positions of power and they influence and manage human, physical, financial and other resources as well as provide crucial support toward higher achievement and success (Bento, 2011; Yukl, 2010; Gappa, Austin & Trice, 2007). Most studies have accepted that leadership is a significant influence on the success of many organizations. More recently, researchers have focused on transformational leadership and relate it with various aspects of organizational outcomes as well as the effect on employees' attitudes towards their job, job environment and their work performance (Leban & Zulauf, 2004; Vigoda-Gadot, 2007; Tabassi & Abu Bakar, 2010). It is widely acknowledged that leadership tasks and responsibilities in the higher education institutions are challenging and some researchers are suggesting that these institutions are the most difficult organizations in the world to lead (Bennis & Movius, 2006). Leadership in these institutions is different from other types of business or industry because it has different organizational environment coupled with unique constraints on the part of the leaders (Gmelch, 2004).

There is also a suggestion that these HEIs not only transform but reinvent themselves by becoming more entrepreneurial in the attitudes, behaviours, and characteristics of the management. Evidences have suggested that organizations that learn how to facilitate entrepreneurship have a more competitive advantage and performing well (Zahra & Covin, 1995). Embracing the concept of entrepreneurship can address uncertainties because these organizations are quick and prompt in respond to changes in turbulence environment (Covin & Slevin, 1989). In addition, entrepreneurship can also generate new ways of funding, improve performance at operations level, and develop alternative means to meet socio-economic demands. It was also found that lack of attention given to the implementation of entrepreneurial actions successfully may result in failure among many organizations (Zahra, 1991). Thus, if the public HEIs are to survive in this rapidly changing environment, they need to become more dynamic and to actively and continuously identifying new opportunities sometimes outside their existing resources and core competencies.

Thus the aim of this study is to explore the relationships between transformational leadership style, corporate entrepreneurship and the performance of academic leaders in the public higher education institutions in Malaysia. Specifically, the objectives of this study are: (a) to determine the significant relationship between transformational leadership and performance of academic leaders, (b) to determine the significant relationship between corporate entrepreneurship and performance of academic leaders, and (c) to determine the mediating effect of corporate entrepreneurship on the relationship between transformational leadership and performance.

2 Literature Review and Hypotheses Development

2.1 Transformational Leadership and Performance

The theory of transformational leadership states that as an agent of change transformational leaders are able to obtain performance beyond expectations by setting challenging goals to steer and motivate themselves and other members in the group for higher levels of performance (Bass & Avolio, 1993; Masi & Cook, 2000; Bass et al.,

2003; Avolio & Bass, 2004; Northouse, 2010). Transformational leaders strive towards internalizing a sense of identification, arouse personal trust and pride, support and respect, promote creative thinking, act with confidence and lead by example, thus making themselves perfect models people want to identify with (Bass & Avolio, 1994; Bass, 1998; Bono & Judge, 2003; Tucker & Russell, 2004; Barbuto, 2005; Yukl, 2010). Past studies have confirmed the positive and significant relationship between transformational leadership and followers' extra effort, leaders' satisfaction and performance (Yukl, 1989; Bass, 1990; Bass & Avolio, 1990; Yammarino & Bass, 1990; Masi & Cook, 2000; Dvir et al., 2002; Bass et al., 2003). It has also been found that leaders who exhibit transformational style were more effective with better performance, and these findings have been validated across hierarchical levels as well as in public and private settings (Lowe et al., 1996; Bakar & Mahmood, 2013a). In addition, transformational leadership is found to be prevalent in the higher education sector, and it provides satisfaction, effectiveness that lead to an extraordinary overall performance (Tucker, 1991; Kirby, King & Paradise, 1992). Based on these discussions, it is posited that:

H1: Transformational leadership has a significant effect on performance of academic leaders in public higher education institutions.

2.2 Corporate Entrepreneurship and Performance

Considerable attention has been given to the relationship between corporate entrepreneurship (CE) and performance. Many researchers have argued that CE can bolster the firm's overall performance (Covin & Slevin, 1991; Zahra, 1993; Lumpkin & Dess, 2001; Wiklund & Shepherd, 2005; Avlonitis & Salavou, 2007; Mahmood & Abd Wahid, 2012; Bakar & Mahmood, 2013). CE can also lead to considerable competitive advantage and is part of a successful organization (Pinchot, 1985). CE can result in diversified products and markets as well as being instrumental to producing impressive financial results (Kuratko, Ireland & Hornsby, 2001). CE is also a predictor of growth of small firms (Covin & Slevin, 1991). Similarly significant and positive relationships were found between the dimensions of CE; innovativeness, proactiveness and risk taking with performance (Avlonitis & Salavou, 2007; Kreiser & Davis, 2010; Bakar & Mahmood, 2013b). Organizations now are forced to be innovative with the emergence of new technologies, globalization and fragmentation of the markets, and at the same time continuously be proactive to be ahead of competitors. In addition, these organizations may seize opportunities and commit resources into ventures with uncertain outcome in order to secure better performance. Based on these arguments, the following hypothesis is proposed:

H2: Corporate entrepreneurship has a significant effect on performance of academic leaders in public higher education institutions.

2.3 Transformational Leadership, Corporate Entrepreneurship and Performance

Transformational leaders are known to maximize their own performance through creative and innovative approaches in getting works done successfully (Howell & Hall-Merenda,

1999). This means that transformational leaders innovate when performing their duties by injecting creative new ideas and experimentation especially when engaging in problem-solving and decision-making activities (Dess & Picken, 2000; Bass & Riggio, 2006). It is argued that by being innovative, these leaders support and encourage employees and followers to behave innovatively (Bass, 1998; Conger, 1999). Studies have also affirmed the positive and significant relationship between transformational leadership and innovative behaviours. This means that transformational leaders are not only creative but they are also willing to take certain calculated risks which are the dimensions of CE (Covin & Slevin, 1986; Wiklund, 1999; Kuratko, 2009). Thus, it is posited that:

H3: Corporate entrepreneurship mediates the relationship between transformational leadership and performance of academic leaders in public higher education institutions.

3 Methodology

3.1 Sample

Data were collected from mail survey of academic leaders from 20 public universities in Malaysia. First, the questionnaires were developed based on previous studies, but in order to fit the specific needs of this study, some modification of the questions were made. These questionnaires were mailed to randomly selected 1000 academic leaders and 246 were received after a couple of follow-ups, giving an effective response rate of 24.6 percent. This response rate is considered reasonably adequate given the low response usually associated with mail surveys. It has been emphasized in the cover letter that there were no right or wrong answers, and that the responses would remain strictly confidential, and thus the social-desirability bias in this method was minimized. There is also an issue of non response bias which is pertinent to survey methodology. Non response bias exists when there are significant differences between the answers of respondents and non respondents. The convention of comparing the respondents of the second wave with those of the early wave was followed (Armstrong & Everton, 1977). The early wave group consisted of 115 responses whereas the second wave group consisted of 131 responses. The T-test performed on the mean responses of the constructs for these two groups yielded no statistical differences, suggesting that no response bias exists in this study.

3.2 Measures

The study used the Multifactor Leadership Questionnaire (MLQ) developed by Bass and Avolio (1993) for measuring the transformational leadership style. A shorter version of the questionnaire consisting twenty (20) items were used to measure four dimensions of transformational leadership; idealized influence, inspirational motivation, intellectual stimulation, and individual consideration. Respondents were asked to indicate their leadership styles based on five-point Likert type scale ranging from 1 (not at all) to 5 (frequently). The entrepreneurial orientation (EO) scale of Covin and Slevin (1989) was adopted for measuring corporate entrepreneurship for this study. The study operationally defined corporate entrepreneurship as an aggregate of three dimensions comprising innovativeness, proactiveness, and risk taking. The questionnaire consists of fifteen (15)

items and respondents were asked to indicate their entrepreneurship behaviour based on a five point scale ranging from 1 (strongly disagree) to 5 (strongly agree). For performance measurement, a thirty-eight (38) item questionnaire adapted from Fox et al.,(2005) and Tucker (1993) was utilized. The measures incorporated the managerial, interpersonal, communication, academic and political factors into a single construct, and responses were made on a five-point scale ranged from 1 (strongly disagree) to 5 (strongly agree).

3.3 Reliability and Validity

Prior to exploring and describing the relationships between transformational leadership, corporate entrepreneurship and performance, the measures were examined and assessed to gauge reliability and validity. The Cronbach alpha coefficient was used to evaluate the extent of reliability and the test results ranged from 0.889 to 0.946 exceeding the recommended minimum level of 0.7 (Nunnally, 1978). This suggests that all the measures have a relatively high degree of reliability (See Table 1 below).

Table 1: Reliability scores

Construct	No. of item	Alpha score
Transformational leadership	20	0.893
Corporate entrepreneurship	15	0.889
Performance	38	0.946

The variables in this study were validated through factor analysis. Before performing the analysis, the suitability of the data was assessed through two tests; Kaiser-Meyer-Olkin measure of sampling adequacy (KMO) and Bartlett's Test of Sphericity. The KMO has to be more than 0.50 and Bartlett's Test of Sphericity has to be significant. For factor analyses, principle component analysis and Varimax rotation were performed. It was suggested that items that had factor loadings lower than 0.40 should be eliminated (Hair et al., 2006). Table 2 shows the KMO value for transformational leadership was 0.900 and the Bartlett's Test of Sphericity was significant at $p < 0.001$. The results support the factorability of the data. The varimax rotated principle component factor analysis applied has resulted in a single factor loading that explained 31.198 percent of the variance. Factor loading was based on 19 items that represented transformational leadership, and only one item was omitted as it did meet the loading criteria.

Table 2: Factor analysis for transformational leadership

No	Item	Factor Loading
1.	I help others to develop their strengths	.755
2.	I suggest new ways of looking at how to complete assignments	.707
3.	I articulate a compelling vision of the future	.686
4.	I get others to look at problems from many different angles	.662
5.	I talk optimistically about the future	.661
6.	I consider individual as having different needs, abilities, and aspirations from others	.649
7.	I emphasize the importance of having a collective sense of mission	.644
8.	I express confidence that goals will be achieved	.643
9.	I talk enthusiastically about what need to be accomplished	.629
10.	I talk about my most important values and beliefs	.627
11.	I seek differing perspectives when solving problems	.621
12.	I spend time teaching and coaching	.563
13.	I specify the importance of having a strong sense of purpose	.533
14.	I display a sense of power and confidence	.522
15.	I consider the moral and ethical consequences of decisions	.507
16.	I act in ways that build others' respect for me	.482
17.	I re-examine critical assumptions to question whether they are appropriate	.481
18.	I instill pride in others for being associated with me	.476
19.	I go beyond self-interest for the good of the group	.441
	Eigen value	7.422
	Percentage of variance explained	31.198
	KMO	.900
	Bartlett's Test of Sphericity: Sig < .001	
	Reliability	0.895

Table 3 shows the KMO value of 0.847 and the Bartlett's Test of Sphericity significance level at $p < 0.001$ for corporate entrepreneurship. The results support the factorability of the data. The varimax rotated principle component factor analysis applied has resulted in a single factor loading that explained 55.465 percent of the variance, and factor loading was based on 12 items that represented corporate entrepreneurship. Three items were omitted as they were below the threshold value of 0.40.

Table 3: Factor analysis for corporate entrepreneurship

No	Item	Factor Loading
1.	I find new ways to do things	.661
2.	I develop new processes, services or products	.656
3.	I do things that have a chance of not working out	.646
4.	I tend to implement changes before they are needed	.639
5.	I often do things in unique ways	.625
6.	I approach tasks in innovative ways	.596
7.	I actively fix or improve things I don't like	.575
8.	I keep ahead of changes instead of responding to them	.564
9.	I take the initiative to start projects or assignments	.560
10.	I will take calculated risks despite the possibility of failure	.546
11.	I engage in activities that have a chance of not working out	.545
12.	I approach new assignments/activities in a cautious manner	.429
	Eigen value	6.656
	Percentage of variance explained	55.465
	KMO	.847
	Bartlett's Test of Sphericity: Sig < .001	
	Reliability	.814

4 Hypotheses Testing

Multiple regressions analysis was used to examine H1 that is the relationships between transformational leadership and performance, and H2 that is the relationship between corporate entrepreneurship and performance. Multiple regression was employed because it not only predicts the effect of independent variables (transformational leadership and corporate entrepreneurship) on the dependent variable (performance), but it also simultaneously examine the unique strength and direction of the individual contribution of independent variables on the dependent variable. Results from the analysis are shown in Table 4. The table shows that both transformational leadership and corporate entrepreneurship have significant positive relationship to performance and these two variables explained 35 percent of the variability in performance. Therefore H1 and H2 are accepted. The finding on H1 concurs with previous studies who found transformational leadership to be positive and significantly related to performance (Judge & Piccolo, 2004; Bass, Avolio, Jung & Bensen, 2003). These findings also support previous studies that associated transformational leadership with higher performance (Yammarino & Bass, 1990; Howell & Avolio, 1993; Masi & Cooke, 2000; Jabnoun & Al Rassi, 2005). Garner and Stough (2002), and Block (2003) found transformational leadership is effective and that it leads to higher productivity and performance. Similarly the finding of H2 also confirms past studies on positive and significant relationships between corporate entrepreneurship and performance (Wiklund & Shepherd, 2003; 2005; Holt et al, 2007, De Jong et al, 2011; Bosma et al, 2012).

Table 4: Regression analysis for transformational leadership, CE and performance

	Std Error	B	T	Sig.
Performance (constant)				
Transformational	.035	.369	6.783	.000*
Corporate entrepreneurship	.044	.368	6.773	.000*

R square = .361, Adjusted R square = .356, * Sig $p < 0.001$

To test hypothesis 3 (H3) that is the mediating effect of corporate entrepreneurship on the relationship between transformational leadership and performance, a regression procedure specified by Baron and Kenny (1986) was used. According to this procedure, it must be demonstrated that the predictor variable (transformational leadership) is related independently to both mediator (corporate entrepreneurship) and outcome (performance) variables. The mediation takes place where the regression coefficient associated with transformational leadership-performance relationship shrinks or goes to zero when corporate entrepreneurship as a mediator is added to the equation. If the effect goes to zero when the mediator is added than full mediation has taken place, however, if the effect only shrinks in the presence of the mediator, then partial mediation has occurred. Figure 1 shows a model of relationships between transformational leadership, corporate entrepreneurship and performance. It indicates that the conditions for mediation as suggested by Baron and Kenny (1986) were met. First, the predictor variable (transformational leadership) was significantly related to performance ($\beta = 0.491$, $p < .001$), and second it was also significant to corporate entrepreneurship as a mediator variable ($\beta = 0.332$, $p < .001$). Third, the mediator variable to performance was significant with both transformational leadership and corporate entrepreneurship as predictor variables ($\beta = 0.368$, $p < .001$). Finally, the effect of transformational leadership was still significant but with a reduced beta value when corporate entrepreneurship as a mediator was added in the regression ($\beta = 0.491$ to $\beta = 0.369$). Thus, H3 is partially supported as partial mediation was registered because the effect of transformational leadership on performance was reduced to a significant level.

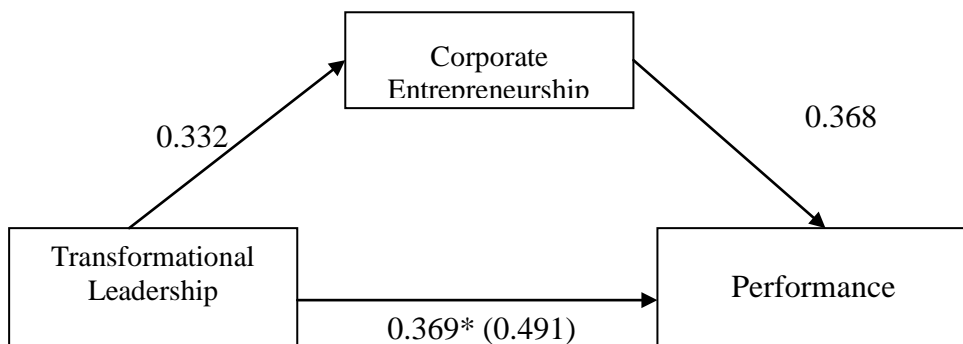


Figure 1: Mediation model of corporate entrepreneurship on transformational leadership-performance relationship

5 Discussions and Conclusion

The first objective of this study aimed to investigate the effect of transformational leadership on performance of academic leaders in public higher education institutions. The findings reveal that transformational leadership has a significant positive effect to performance, and this means that a higher level of transformational leadership would result in a higher level of performance of academic leaders in the Malaysian public HEIs. This finding concurs with past studies which strongly support the contribution of transformational leadership to increased performance in many organizations (Bass, 1998; Bass et al, 2003; Yukl, 2010; Northouse, 2010; Wang et al., 2011; Aziz et al, 2013) as well as the higher education sector (Lo et al., 2009; Hashim, 2010; Sadeghi & Zaidatol, 2013). Therefore public higher education institutions should endeavour to select and nurture transformational leadership qualities among academic leaders for the potential increased performance. The leadership characteristics should be considered when selecting and appointing the academic to the administrative posts. In addition, existing leaders should reconsider their choice of leadership style since it has significant effect on performance. Due to rapid changes in the environment, the ability of public higher education institutions to learn fast and effective becomes crucial for their adaptability and survival, let alone their success. Transformational leaders are able to view the organization as constantly being reinvented to implement change when needed for its betterment. They are also the motivators with the ability to share a vision of future possibilities that inspire subordinates to place the needs of the group above their own individual interests (Early & Davenport, 2010; O'Reilly et al, 2010). Thus, the transformational leadership is the desired quality of leaders in today's environment of the higher education institutions.

The second objective of the study investigated the effect of corporate entrepreneurship on performance of academic leaders. The findings also revealed significant and positive relationship to performance which indicates that as corporate entrepreneurship levels increase performance also increases. This suggests that academic leaders who exhibit high level of innovativeness, who are proactive and have a high propensity to take or accept risks are likely to positively impact their performance. These are the attributes the academic leaders in the HEIs need to sharpen their problem solving and decision-making skills, and hence giving exceptional performances (Kuratko, 2007; Lumpkin, 2007; Moriano et al, 2011). The findings also support previous studies on the corporate entrepreneurship and performance relationship (Wiklund & Shepherd, 2003, 2005; Holt et al., 2007; De Jong et al., 2011; Bosma et al, 2012; Mahmood & Hanafi, 2013), and the interactions in the university settings (Nik Ismail et al, 2013; Nik Ismail, Mahmood & Abd. Rahim, 2012).

Examining the mediating effect of corporate entrepreneurship on the relationship between transformational leadership and performance was the third and final objective of the study. The finding establishes that the effect of transformational leadership on performance is a mediated relationship where corporate entrepreneurship acts as a conduit in enhancing the effect of the relationship between transformational leadership and performance. According to Baron and Kenny (1986) a mediated relationship is assumed if a predictor variable has its effect on the outcome variable via a mediator variable. Thus the effect caused by transformational leadership on performance is shared by the influence of the direct effect of corporate entrepreneurship on performance. Those

academic leaders who possess transformational leadership attributes are also inclined towards corporate entrepreneurship, resulting in higher performance.

This study has contributed to a better understanding of leadership attributes and behaviors in public higher education institutions, nevertheless it has some limitations that must be considered and possibly addressed in future research. First, the cross-sectional nature of this study could only capture and analyse a snapshot of a phenomenon and therefore failed to examine the change of respondents' perception over time. This can be overcome by conducting a longitudinal study to track the perceptions of respondents over a considerable period of time. The study was also limited by the use of a self-reported questionnaire which made it impossible to validate respondents' profile to clarify the meaning of questions. Finally, only a single research methodology approach was employed and future research through other methods could be undertaken to triangulate.

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