

# **Mediation Effect of Entrepreneurial Orientation between Transformational Leadership and Performance in Malaysian Private Higher Learning Institutions**

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**Abstract:** *This study measures the impact of transformational leadership and entrepreneurial orientation on the performance of academic leaders, in order to determine the degree of mediation of entrepreneurial orientation between transformational leadership and performance. Correlational research design has been used to study the relationship between multiple variables. The approach is cross-sectional quantitative research using the questionnaire method with ordinal 5-point Likert scale instruments to obtain the data. The sample consists of 81 response received from the Google Form sent out to private Higher Learning Institutions, with achieved power (1-  $\beta$  err prob) within the acceptable range of more than 0.80. All three constructs have passed the reliability test with Cronbach's Alpha score more than 0.80. Simple regressions analysis was used to examine the impact of transformational leadership on performance, the impact of entrepreneurial orientation on performance, and the mediation effects of entrepreneurial orientation. The findings agreed with previous studies that transformational leadership and entrepreneurial orientation have significant positive impact on performance. In addition, the results showed no significant mediation effect of Entrepreneurial Orientation, similar to partial mediation effect found in previous studies. Therefore, our public and private sectors should join together to support higher education business with more contribution and resources on training of effective leadership style and entrepreneurial practice for the potential increased performance.*

**Keywords:** *Transformational leadership, Entrepreneurial orientation, Performance, Academic leaders.*

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## **I. Introduction**

Several studies showed that that leadership will induce enhancement on the performance of an organization. Transformational leadership has been introduced and promoted among other leadership styles, due to its enhancement on performance, and positive result on employees' overall perception about their duties, working environment and job performance (Leban & Zulauf, 2004; Vigoda-Gadot, 2007; Tabassi & Abu Bakar, 2010).

According to Malaysia Education Blueprint 2015-2025 (Higher Education), higher education business has significant contribution to Malaysian economy when the country emerges as one of the top 10 destinations for international students over the past few years. However, due to the high competition from our neighbour countries, academic leaders are required to continuously enhance their performance and maintain competitive in the region and beyond. Malaysia needs to raise the standard of higher education even further, from an education hub known for good value for money and quality of study, to one that is highly demanded for its academic and research excellence.

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Beside transformational leadership, more and more higher learning institutions (HLI's) also reform themselves by adopting entrepreneurial ideas in management style and orientation. Evidence has shown that organizations which have adopted entrepreneurship, acquired more competitive advantages and are performing better (Zahra & Covin, 1995). Entrepreneurship can enhance performance at operation level, as an innovation result of developing various means to meet socio-economics challenge.

Academic leaders with entrepreneurial mindset always look for new ways of funding, thus, if the private higher learning institutions are to success in this challenging business, they have to become more dynamic and think outside the boxes, while searching for new opportunities endlessly.

As a conclusion, the mission of this study is to measure the impact of transformational leadership (TL) and entrepreneurial orientation (EO) on the performance (PM) of academic leaders in Malaysian private higher learning institutions (HLIs). In details, the objectives of this study are: (a) to measure the impact of transformational leadership on performance of academic leaders, (b) to measure the impact of entrepreneurial orientation on performance of academic leaders, and (c) to measure the degree of mediation of entrepreneurial orientation between transformational leadership and performance.

According to Malaysia Higher Education Statistic, the enrolment of public universities is 563,186 as compared to 493,725 students enrolled to private higher learning institution in year 2014. Nevertheless, private higher learning institution has overtaken public universities since 2015, with 580,928 students, higher than 540,538 students enrolled in public universities. The gap has widened gradually, as in year 2019, there are 633,344 students in private universities, 11.5% more than 567,625 students in public universities.

Most of the researches only conducted in public universities which can no longer represent the majority of targeted population, with minor reflection of the reality, causing a reduced generalisation of the research purpose. There are 51 local private universities, 10 overseas private universities (local branch campus) 37 local private university colleges and 339 private colleges in Malaysia, with a more balanced mixture of local and international students. The population of private higher learning institutions is a close resemblance of the actual world population

Private higher learning institutions become more and more important in Higher Education and Leadership among these institutions will have significant influence of the future development of higher education in Malaysia. These institutions are operated under corporate structure, which embrace entrepreneurial orientation as the core spirit for sustainability of the institutions in long run.

As previous study was conducted among the public universities, a study with different sample from the private higher learning institutions may be able to extend the boundaries of result; or result in new findings (M. S. Bakar and R. Mahmud, 2014). There is an urgent need for more research in private sector to generate better understanding of leadership with good quality and impact. The findings will draw more attention from public and private sector, all together to support our higher education business with more contribution and resources to focus on training of effective leadership style and entrepreneurial practice.

The objectives of this study are to measure the positive impact of transformational leadership on performance of academic leaders, and positive impact of Entrepreneurial Orientation on performance of academic leaders. This study is also aimed to measure the degree of mediation of Entrepreneurial Orientation between transformational leadership and performance. The independent variables (IV) of this study are Transformational Leadership while dependent variables (DV) are Performance. Entrepreneurial Orientation serves as the mediator variables (MV) of this study.

### **1.1 Research Hypotheses**

Three null hypotheses are formulated and tested in this study. Following are the hypotheses:

Ho1: Transformational leadership has no positive impact on performance of academic leaders in Malaysian private HLIs.

Ho2: Entrepreneurial orientation has no positive impact on performance of academic leaders in Malaysian private HLIs.

Ho3: Entrepreneurial orientation does not have a high degree of mediation between transformational leadership and performance of academic leaders in Malaysian private HLIs.

## **II. Literature Review**

### **1.1 Transformational Leadership Theory**

The concept of transforming leadership was first mentioned by James MacGregor Burns (1978) in his descriptive research on political leaders and is now extended to organizational psychology as well. According to Burns, transforming leadership is a mutual process in which leaders and followers influence each other to progress to a higher level of morale and motivation. The transforming approach has a great impact in the life of people and organizations. It changes the expectations and aspirations of followers through reshaping perception and values. Transforming leaders are idealized as role model who prioritize the benefit of the team, organization and/or community.

Burns' work is continued by Bernard M. Bass (1985), through description of the underlying psychological mechanisms. Term "transformational" is used by Bass instead of "transforming." Bass added to the initial concepts of Burns (1978) and demonstrated how transformational leadership could be measured, as well as the degree of impacts it has towards the follower motivation and performance.

After 30 years of research, many meta-analyses have shown that transformational leadership has positive impact on overall performance on individual, group and organizational level (Bass & Bass 2008). There are four (4) elements of transformational leadership:

1. Individualized Consideration – the degree to which the leader pays attention to each of the follower's concerns and needs, performing the role as a mentor or coach. The leader responds in open communication with empathy, support and motivate the followers.

2. Intellectual Stimulation – the degree to which the leader questions norms, and encourage followers to think independently for creative ideas, and dare to take risk of unexpected situation as opportunities to learn.

3. Inspirational Motivation – the degree to which the leader conveys a clear vision that is attractive, and challenge followers with high standards, giving real meaning to their daily task. The leader motivates his or her followers with a strong sense of purpose and the driving force for future growth.

4. Idealized Influence – the degree to which the leader acts as role model with high standard of ethic. With mutual respect and trust, leader imparts pride among the followers towards the organization.

This study operationalizes Transformational Leadership (TL) as an overall measurement of four (4) dimensions:

- 1) idealized influence,
- 2) inspirational motivation,
- 3) intellectual stimulation,
- 4) individual consideration.

### **1.2 Entrepreneurial Orientation Theory**

The entrepreneurial orientation theory can be traced back to strategic decision making introduced in Mintzberg's theory (1973), along with other active researchers such as Miller (1975) and Khandwalla (1976), from McGill University. The entrepreneurial orientation was first constructed by Miller (1983), follow up by modification from Covin (1989) and Slevin (1991).

Today, the entrepreneurial orientation is widely accepted to measure a firm's degree of entrepreneurship (Andersén 2012; Bouchard and Basso 2011; Covin and Wales 2018; Frank et al. 2010; Lumpkin 2011; Wang and Altinay 2012). Over the years, research has emphasised the value of entrepreneurial orientation in stimulating innovation, renewal, and proactive initiatives (Covin and Slevin 1989; Dess and Lumpkin 2005).

Built on founding concept of Miller's, researchers have come to an agreement on the three (3) dimensions of entrepreneurial orientation: innovativeness, risk-taking, and proactiveness (Covin and Wales 2018; Rauch et al. 2009; Wales et al. 2013):

1. Innovativeness - Innovativeness defines the corporate's tendency to incorporate creative ideas and new technologies to explore new opportunities, alternative solutions, or creation to new technology, products, or services (Dess and Lumpkin 2005). In the entrepreneurial orientation literature, innovativeness can be defined as a series of approaches to create or implement new products or services, as well as business activities (Vora et al. 2012).

2. Risk-taking - There are different types of risk, including risk-return and trade-off, the probability of a loss (Lechner and Gudmundsson 2014) or tolerance of uncertainty (Gunawan et al. 2015). Miller and Friesen define probability of loss as the degree of risk-taking to which the leaders are ready to commit with huge resource, considering there is a real chance of financial catastrophes" (1978, p. 923). All corporates deal with different level of risk, from "safe" risk, with low uncertainty and small investment, to high risk of extreme uncertainty and huge investment (Lumpkin and Dess 1996)

3. Proactiveness - Miller and Friesen (1978) reason that proactiveness shapes the future through, for example, new products, latest technology, and innovative business as a distinction response to the current practice. Corporates with proactiveness are able to anticipate and prepare themselves for the future by looking forward to it (Dada and Fogg 2014; Sciascia et al. 2006). They want to take the advantages as pioneers (Wiklund and Shepherd 2005). Miller proposed that proactiveness can be termed as "first to come up with 'proactive' innovations" (1983, p. 771), which prioritise the speed of pushing new products and innovated services to the market.

### **1.3 Scope of Performance \**

Model from Fox et al.,(2005) is selected with five-category scale components: 1) Managerial, 2) Interpersonal, 3) Communication, 4) Academic, and 5) Political. Tucker (1993) proposed that the essential managerial skills for effective academic leader are problem solving, goal setting, financial planning, and the preservation of departmental resources. Thus 12 items were written to assess these abilities.

Interpersonal Skills consisted of 11 items are about the social interactions between the academic leader and the reporting staff, conflict management, smooth delivery of important information, and the ability of the leader to perform effectively under stress. The section on Communication assessed the academic leader's ability to deliver important messages verbally and in written form with all the department's constituents; this section is addressed with 6 items.

In Academic section, there are measurement with 5 items on the list, including academic pursuits such as professional involvement and the support given to the faculty regarding their professional development. The last category assessed the academic leader's political wisdom with 4 items and included feedback for the academic leader concerning interactions within the higher learning institutions as a whole.

This study operationalizes Performance in a single construct of five (5) factors:

- 1) managerial,
- 2) interpersonal,
- 3) communication,
- 4) academic,
- 5) political.

### **1.4 Transformational Leadership and Performance**

According to the theory of transformational leadership, these leaders are able to drive and motivate themselves along with their group members to achieve higher performance, by setting challenging target through a series of changes (Bass & Avolio, 1993; Masi & Cook, 2000; Bass et al., 2003; Avolio & Bass, 2004; Northouse, 2010).

Many studies have shown the positive impact of transformational leadership to trigger the extra effort of the followers, leading to higher 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).

Past studies have also suggested that leaders who adopt transformational leadership style result in better performance with increased efficiency, and these findings are consistent across different management levels throughout public and private sectors (Lowe et al., 1996; Bakar & Mahmood, 2013a).

More specific studies also found that transformational leadership is well established in the higher education sector. It induces job satisfaction, improve efficiency and bring the overall performance to much higher level (Tucker, 1991; Kirby, King & Paradise, 1992).

### **1.5 Entrepreneurial Orientation and Performance**

Many researchers have claimed that Entrepreneurial Orientation (EO) can enhance the company's overall performance (Covin & Slevin, 1991; Zahra, 1993; Lumpkin & Dess, 2001; Wiklund & Shepherd, 2005; Avlonitis & Salavou, 2007; Mahmood & Abd Wahid, 2012; Bakar & Mahmood, 2013). Company could gain substantial competitive advantage through Entrepreneurial Orientation which is one of the keys to a fruitful business (Pinchot, 1985).

More attention should be given to the positive impact of Entrepreneurial Orientation on corporate performance. Corporate performance is highly correlated to three (3) dimensions of Entrepreneurial Orientation: 1) innovativeness, 2) proactiveness and 3) risk taking. (Avlonitis & Salavou, 2007; Kreiser & Davis, 2010; Bakar & Mahmood, 2013b).

Market globalization and fragmentation, with the emergence of new technology has forced many organizations to be innovative and proactive in order to lead the market and stay head ahead of competitors. With calculated risk, these corporate may take bold step to grab opportunities channel resources into new business model in order to secure better performance.

### **1.6 Transformational Leadership, Entrepreneurial Orientation and Performance**

Transformational leaders transform creative and innovative ideas into concrete actions to complete task successfully, in order to get the best performance out of normal practice (Howell & Hall-Merenda, 1999). This means that transformational leaders innovate when performing their duties by injecting creative new ideas and experimentation especially during problem solving and decision-making situation (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 Entrepreneurial Orientation (Covin & Slevin, 1986; Wiklund, 1999; Kuratko, 2009).

## **III. METHODOLOGY**

This is a quantitative study using descriptive research design . Questionnaire were used to collect the data. Purposive sampling was used to collect the data from chief executive personals in private higher learning institutions (Vice Chancellors, Deputy Vice Chancellors, Academic Directors, Deputy Directors, Deans, Deputy Deans, Associates Deans, Professors, Associates Professors, Heads of Department, Heads of Programme with academic leadership/ supervision role). The sample consist of 81 academic leaders from Selangor state and Federal Territory who responded to the questionnaire via Google Form.

Multifactor Leadership Questionnaire (MLQ) established by Bass and Avolio (1993), was used to measure the transformational leadership. A simple version of the questionnaire ( 19 items) was used to assess four (4) magnitudes of Transformational leadership: 1) idealized influence, 2) inspirational motivation, 3) intellectual stimulation, and 4) individual consideration. Respondents' leadership styles were measured using five (5) point Likert scale from 1 (not at all) to 5 (frequently).

For measurement of Entrepreneurial Orientation, the entrepreneurial orientation (EO) scale of Covin and Slevin (1989) was adopted (11 items). The study operationally defined Entrepreneurial Orientation as combination of three components consist of innovativeness, proactiveness, and risk taking. Respondents were asked to review their entrepreneurship conduct based on a five (5) point scale from 1 (strongly disagree) to 5 (strongly agree).

Finally, in order to measure performance measurement, Leadership Evaluation Instrument for Academic Chairpersons (LEIFAC) modified version of questionnaire ( 38 items) from Fox et al.(2005) and Tucker (1993) was used. The questionnaire integrates 5 factors which are 1) managerial, 2) interpersonal, 3) communication, 4) academic and 5) political factors, using five (5) point Likert scale from1 (strongly disagree) to 5 (strongly agree).

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Prior to the actual study a pilot study was conducted among 40 participants in order to examine reliability of the instrument. The Cronbach alpha coefficient was used to evaluate the extent of reliability and the test results ranged from 0.862 to 0.969 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 3.1 below).

Table 3.1:  
*Reliability Analysis*

Construct	No. of item	Alpha score
Transformational Leadership (TL)	20	0.907
Entrepreneurial Orientation (EO)	12	0.862
Performance (PM)	38	0.969

### 3.3 Data Analysis

The data was analyzed using SPSS Program for Windows version 24.0. Simple linear regression and mediation was used to analyze the data.

## IV. FINDINGS AND DISCUSSION

Ho1: Transformational leadership has no positive impact on performance of academic leaders in Malaysian private HLIs.

Simple regression analysis was used to examine the relationship between TL and PM. Results from the analysis are shown in Table 4.1 & 4.2. The table shows that TL has extremely significant ( $p < .001$ ) positive impact (Beta = 0.760, positive) to PM. TL explained 49.2% of the variability in PM. Therefore  $H_01$  is rejected. Transformational leadership has a positive impact on performance of academic leaders in Malaysian private HLIs.

Table 4.1:

*Simple Linear Regression Analysis (ANOVA<sup>a</sup>) for TL & PM*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	8.996	1	8.996	78.53	.000 <sup>b</sup>
Residual	9.048	79	.115		
Total	18.044	80			

- a. Dependent Variable: Performance (PM)
- b. Predictors: (Constant), Transformational Leadership (TL)

Table 4.2:

*Simple Linear Regression Analysis (Coefficients<sup>a</sup>) for TL & PM*

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	1.034	.379			2.730	.008
TL	.760	.086	.706		8.862	.000

- a. Dependent Variable: Performance (PM)

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Findings from Simple Linear Regression Analysis (ANOVA<sup>a</sup> in Table 4.1 clearly indicate that the Transformational Leadership (TL) has significant effects on performance of academic leaders (PM) (  $F= 78.53$ ,  $p= .000$  ) . Findings from Simple Linear Regression (Coefficients<sup>a</sup>) in Table 4.2 also indicate that

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Transformational Leadership (TL) has significant positive effects on performance of academic leaders (PM), (  $B = .760, B = .706, p = .000$ ). As such these findings fail to accept Ho1.

This means that a higher level of transformational leadership would reflect in a higher level of performance of academic leaders in the Malaysian private higher learning institutions. These findings support previous studies which strongly indicate the contribution of transformational leadership to enhance performance in many organizations (Bass, 1998; Bass et al, 2003; Yukl, 2010; Northouse, 2010; Wang et al., 2011; Aziz et al, 2013). In addition, current findings is similar with studies in the higher education sector by Lo et al., 2009; Hashim, 2010; Sadeghi and Zaidatol, 2013; Bakar and Mahmood, 2014.

Therefore, private higher learning institutions should encourage the practice of transformational leadership among academic leaders for the enhancement in performance of academic leaders in Malaysian private HLIs.. The transformational leadership characteristics should be considered among the selection committee when promoting the academics to the senior management posts such as the chair post.

Ho2: Entrepreneurial orientation (EO) has no positive impact on performance of academic leaders (PM) in Malaysian private HLIs.

Table 4.3:

#### *Simple Linear Regression Analysis (ANOVA<sup>a</sup>) for EO & PM*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.100	1	4.100	23.226	.000 <sup>b</sup>
Residual	13.944	79	.177		
Total	18.044	80			

a. Dependent Variable: Performance (PM)

b. Predictors: (Constant), Entrepreneurial Orientation (EO)

Table 4.4:

#### *Simple Linear Regression Analysis (Coefficients<sup>a</sup>) for EO & PM*

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	2.758	.339		8.144	.000	
TL	.402	.083	.477	4.819	.000	

a. Dependent Variable: Performance (PM)

Simple regression (ANOVA<sup>a</sup>) analysis was also used to examine Ho2 that is the relationship between Entrepreneurial Orientation (EO) and Performance (PM). Results from the analysis in Table 4.3 show that EO has significant effects on performance of academic leaders (PM) in Malaysian private HLIs. ( $F = 23.226, p = .000$ ). Results in Table 4.4 indicate that EO has significant positive impact on PM (  $B = .402, Std Error = .083, p = .000$ ). As such, these findings fail to accept Ho2.

These findings suggest that academic leaders who have high level of entrepreneurial orientation (proactive innovators who are willing to take or accept risks) are likely to demonstrate high performance. Proactiveness and Innovativeness sharpen the problem-solving skill and decision-making skills, and hence giving exceptional performances of academic leaders in private higher learning institutions (Kuratko, 2007; Lumpkin, 2007; Moriano et al, 2011). The results also support previous studies on the relationship between entrepreneurial orientation and performance (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).

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Therefore private higher learning institutions should promote the entrepreneurial orientation culture among academic leaders for the potential increased performance. The entrepreneurial orientation characteristics should be considered among the research committee when providing research grant to the academics.

Ho3: Entrepreneurial orientation does not have a high degree of mediation between transformational leadership and performance of academic leaders in Malaysian private HLIs.

Table 4.5:

*Simple Linear Regression Analysis (ANOVA<sup>a</sup>) for TL & EO*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.514	1	6.514	27.308	.000 <sup>b</sup>
Residual	18.845	79	.239		
Total	25.360	80			

*Simple Linear Regression Analysis (Coefficients<sup>a</sup>) for TL & EO*

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	1.178	.547			2.155	.034
TL	.646	.124	.507		5.226	.000

Findings from Simple Linear Regression analysis ANOVA<sup>a</sup> in Table 4.5 clearly indicate that TL has a significant effect on PM (F=27.308, p = .000). In addition, the findings from Simple Linear Regression Analysis (Coefficients<sup>a</sup>) in Table 4.5 show that TL has positive effect on PM (B = 0.646, p=.000).

Table 4.6:

*Multiple Linear Regression Analysis (ANOVA<sup>a</sup>) for TL, EO & PM*

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	9.338	2	4.669	41.833	.000 <sup>b</sup>
Residual	8.706	78	.112		
Total	18.044	80			

*Multiple Linear Regression Analysis (Coefficients<sup>a</sup>) for TL, EO & PM*

Model	Unstandardized		Standardized		t	Sig.
	Coefficients		Coefficients			
	B	Std. Error	Beta			
(Constant)	.875	.385			2.275	.026
TL	.672	.098	.625		6.851	.000
EO	.135	.077	.160		1.752	.084

Results of in Table 4.6 reveal that the mediator or EO has a significant effect on PM, F= 41.83, p= .000). Results from in Table 4.6 show that EO has positive effect on PM (B = 0.177, p=.000). In addition results from Multiple Linear Regression Analysis (Coefficients<sup>a</sup> in table 4.6 also indicate that component TL has a significant effect on PM or performance, (Beta= .625, t=6.851). Nevertheless, the coefficient for component EO is not significant (Beta= .160, t=1.752, p=.085).



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Table 4.7:

*Indirect effect of TL on PM*

	Effect	BootSe	BootLLCI	BootULCI
EO	.087	.067	-.015	.250

*Partially Standardized Indirect effect of TL on PM*

	Effect	BootSe	BootLLCI	BootULCI
EO	.184	.139	-.031	.515

*Completely Standardized Indirect effect of TL on PM*

	Effect	BootSe	BootLLCI	BootULCI
EO	.081	.062	-.013	.230

Results in Table 4.7 and Figure 4.1 show the indirect effects of Transformation Leadership on Performance whereby the mediation effect of Mediator Variable EO (Entrepreneurial Orientation) is 0.87. Since zero falls in the resulting confidence intervals for all Indirect effect, Partially Standardized Indirect effect, and Completely Standardized Indirect effect (Table 4.7) of the bootstrapping method, a conclusion can be reached that there is no high degree of mediation. Thus, it is concluded that EO or Entrepreneurial Orientation does not have significant mediation effect between transformational leadership and performance of academic leaders in private higher learning institutions.

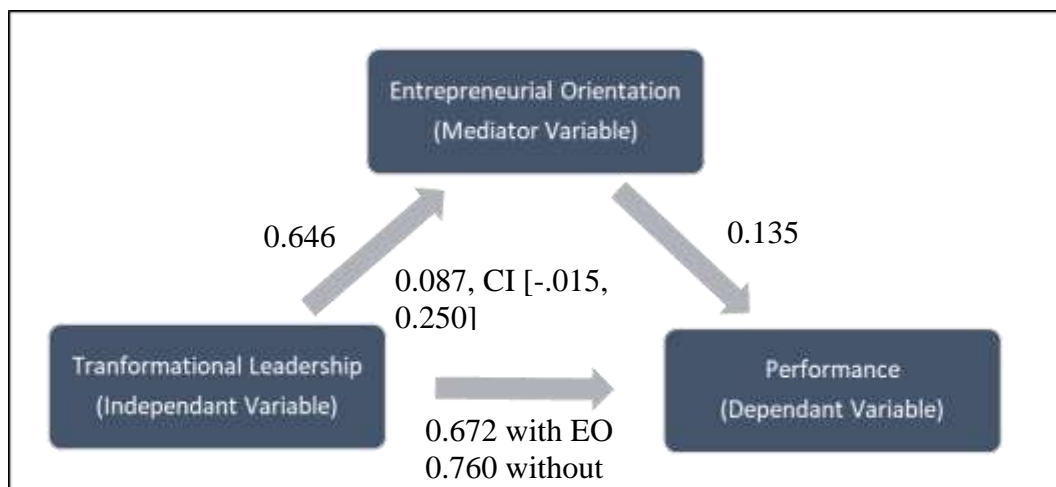


Figure 4.1. Mediation Effect of Entrepreneurial Orientation Between Transformational Leadership and Performance in Malaysian Private higher learning institutions

On the other hand, a promising result is shown when Transformational Leadership replaces Entrepreneurial Orientation as Mediator variable. Zero falls out of the resulting confidence intervals for all Indirect effect (Table 4.8), Partially Standardized Indirect effect (Table 4.8) and Completely Standardized Indirect effect (Table 4.8) of the bootstrapping method, a conclusion can be reached that there is a significant effect of Transformational Leadership between Entrepreneurial Orientation and Performance. These findings fail to accept Ho3.

Table 4.8

*Indirect effect of EO on PM*

	Effect	BootSe	BootLLCI	BootULCI
EO	.267	.061	.158	.394

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*Partially Standardized Indirect effect of EO on PM*

	Effect	BootSe	BootLLCI	BootULCI
EO	.563	.119	.351	.821

*Completely Standardized Indirect effect of EO on PM*

	Effect	BootSe	BootLLCI	BootULCI
EO	.317	.066	.194	.454

Therefore, these findings suggest that private higher learning institutions should promote the entrepreneurial orientation culture among academic leaders for the potential increased performance. The entrepreneurial orientation characteristics should be considered among the research committee when providing research grant to the academics.

Incubators should be set up in private higher learning institutions, not just to provide and entrepreneurial orientation environment for academics, but also to produce real entrepreneurs to generate thousands of job opportunities and incomes for the country.

The results show no significant mediation effect of Entrepreneurial Orientation, although both Transformational Leadership and Entrepreneurial Orientation has extremely significant positive effect to Performance. The results are consistent with findings of previous studies by Bakar and Mahmood (2014). These findings also consistent with findings by Lo et al., 2009; Hashim, 2010; Sadeghi and Zaidatol, 2013. Studies by Khan, Rehmat, Butt Farooqi and Asim (2020) also concluded that that work performance has positive significant relationship with transformational leadership.

Figure 2 explains a revised Conceptual Framework of relationship between Transformational Leadership, Entrepreneurial Orientation and Performance of Academic Leaders in Malaysian Private Higher Learning Institutions

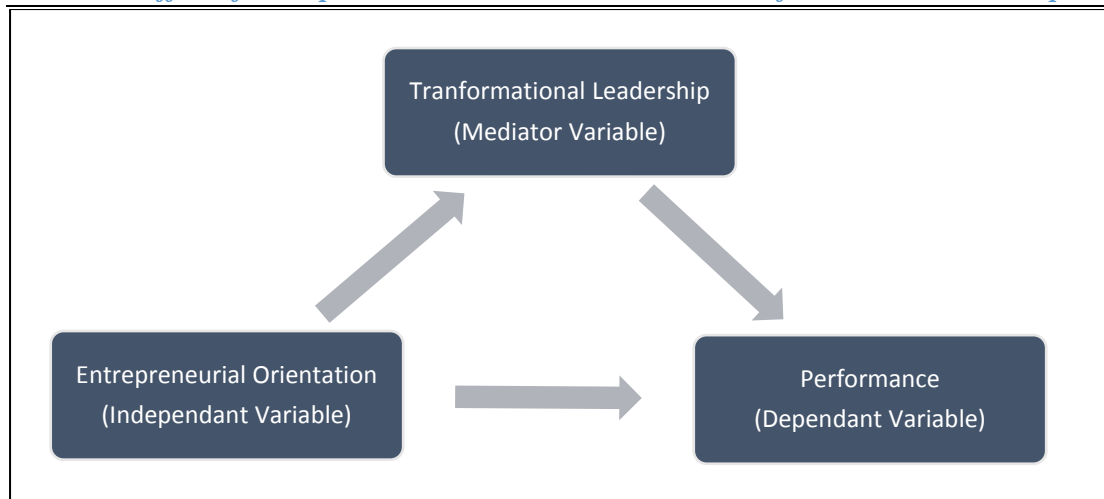


Figure 2

Revised Conceptual Framework of Relationship between Transformational Leadership, Entrepreneurial Orientation and Performance of Academic Leaders in Malaysian Private Higher Learning Institutions.

## V. CONCLUSION

This study has contributed to a better understanding of leadership attributes and behaviours in public higher learning institutions, nevertheless it has some limitations that must be considered and possibly addressed in future research. First, as the leadership styles of the academic leadership might changes from time to time, a cross-sectional study could only assess a limited time frame of a phenomenon and therefore failed to examine the change of respondents' perception over time. A longitudinal study to track the perceptions of respondents over a period of time is highly recommended.

The research only focusses on Malaysian private higher learning institutions as extension to the previous research on Malaysian public higher learning institutions. A combined research covering all Malaysia public and private higher learning institutions will give a better understanding and comparison.

It is impossible to validate respondents' profile to clarify the meaning of questions by using anonymous self-reported questionnaire, a sacrifice in validity in order to protect the confidentiality of the respondents. Methods other than questionnaire survey should be undertaken in future research to diversify from the single research methodology approach employed in this study.

Finally, based on the discussion on Ho3, the existing model should be revised, replacing Entrepreneurial Orientation with Transformational Leadership as mediator variable. The new model might provide insight for entrepreneurs to select suitable leadership style in order to enhance their performance. Figure 2 shows the revised concept framework of the proposed model.

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