

Mediation Effects of Knowledge Management in the Relationship between Managing Talent and Private Colleges Performance

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Abstract

The purpose of this study is to investigate the organizational performance of private colleges associated with managing talent practices and whether knowledge management mediates the relationship between managing talent attraction and recruitment, talent development and talent retention with respect to organizational performance of private colleges. PLS-SEM technique is deployed to test the hypothesized relationships in the model. A survey method is used to collect data for all variables of interest in this study. The non-probability sampling approach of convenience sampling is utilized due to the unavailability of a list of all the elements of the population. Unit of analysis is at individual level. A total of 1750 questionnaires survey forms are distributed to 350 private colleges in Malaysia and this provides a sample size of 243 representing 49 private colleges. A response rate of 13.9% is achieved. Empirical findings in this study highlight that managing talent development is a significant predictor contributing to knowledge management and organizational performance of private colleges. Knowledge management is shown to have a significant direct positive impact on performance level of private colleges. The management of talent attraction and recruitment, talent development and talent retention are each predicted to have a significance positive influence on knowledge management. The mediation effects of knowledge management are statistically significant and it partially mediates the relationship between managing talent attraction and recruitment, talent development and talent retention with organizational performance of private colleges. Both limitations of the study and managerial implications are also highlighted in this paper.

Key Words: Managing talent attraction and recruitment, Managing talent development, Managing talent retention, Knowledge management, Organizational performance, PLS-SEM.

Introduction

With the forces of commercialization and privatization driving contemporary higher education globally, the market for private higher education is rapidly expanding and the performance of private colleges is inevitably a function of the markets in which their businesses operate (Martin, 2010). According to Riggan (2012), the success of private higher learning institutions has been evaluated not only from the standpoint of financial metrics such as business performance, value of the enterprise and stability of earnings, but also from non-financial indicators like students and parents satisfaction, reputation as well as their comparative advantages. In relation to this, previous studies are concerned about the strategic practices of managing talent that have not been sufficiently put in place by private sector higher-education businesses to effect profitability and growth of the organizations (Lynch, 2007; Lavania, Sharma & Gupta, 2011). Other researchers such as Riccio (2010) and Cook (2012) have further advocated a systematic approach to talent management being institutionalized as a priority to develop administrative-academic leadership talent and increase competitiveness within the private higher learning institutions.

Moreover, the business of private higher education is unique in such a way that it arguably assumes the role of managing valuable knowledge among individual talents in encouraging learning and development to take place among other employees which in turn, helps sustain the competitiveness of educational organizations in today's globalized knowledge-based economy (Arokiasamy, Ismail, Ahmad & Othman, 2009). By managing key talent strategically is further claimed to facilitate the activities for which organizational knowledge is managed through the establishment of network interaction among individual talents to impact the performance of business corporations (Kianto, Ritala, Spender & Vanhala, 2014).

This paper is therefore aimed to investigate the organizational performance of private colleges in Malaysia associated with the management of talent practices and to evaluate the role of knowledge management in mediating the relationship between managing talent attraction and recruitment, talent development and talent retention with respect to organizational performance of private colleges. The next section of this paper discusses the research context and hypotheses formulated in accordance to the literatures reviewed on the practices of managing talent and knowledge management with organizational performance of private colleges. This is followed by an explanation of the research method used and the assessment of measurement and structural models by employing the PLS-SEM technique using SmartPLS 2.0 M3 software. The last section highlights the limitations and managerial implications made by this paper.

Literature Review and Hypotheses

A plethora of research studies (Lockwood, 2006; Scullion & Collings, 2011; Schuler, Jackson & Tarique, 2011; Sheehan, 2012; Liu & Pearson, 2014; Ulrich, 2015) have concluded the importance of talent management in driving business results that positively impact organizational performance. However, there is still a lack of empirical evidence to demonstrate how each strategic practice of managing talent influences the performance of private academic institutions in Malaysia coupled with a call made to predict the impact of managing talent practices on knowledge management that positively affects organizational performance (Whelan, Collings & Donnellan, 2010). Therefore, this paper hypothesizes that:

- H1: There is a significant positive relationship between managing talent attraction and recruitment with organizational performance of private colleges.
- H2: There is a significant positive relationship between managing talent development and organizational performance of private colleges.
- H3: There is a significant positive relationship between managing talent retention and organizational performance of private colleges.
- H4: Managing talent attraction and recruitment has a significant direct positive impact on knowledge management among private colleges.
- H5: Managing talent development has a significant direct positive impact on knowledge management among private colleges.
- H6: Managing talent retention has a significant direct positive impact on knowledge management among private colleges.
- H7: Knowledge management has a significant direct positive impact on the performance level of private colleges.

Despite having a positive relationship between talent management and organizational performance, what has not been fully explained and empirically tested in the past is by how the effects of managing talent are passed on to influence the performance of organizations. In light of this, knowledge management is considered a missing link that bridges the gap between managing talent and organizational performance (Alshekaili & Boerhannoeddin, 2011; Kianto, Ritala, Spender & Vanhala, 2014). In this paper therefore, it is hypothesized that:

- H8: The impact of managing talent attraction and recruitment on organizational performance of private colleges is significantly mediated by knowledge management.
- H9: The impact of managing talent development on organizational performance of private colleges is significantly mediated by knowledge management.
- H10: The impact of managing talent retention on organizational performance of private colleges is significantly mediated by knowledge management.

Research Methodology

A survey method using formal standardized questionnaires as a tool with 41 items adapted from previously validated scales to collect quantitative data for all variables of

interest studied. All 17 items to the latent variables of talent attraction and recruitment, talent development and talent retention are measured on a 5-point Likert scale, where all of which are identified from the study by Oehley (2007). Knowledge management comprises 14 items measuring on a 5-point Likert scale are adapted from Zack, McKeen and Singh (2009) while the perceived organizational performance of private colleges is measured using 10 items on a 7-point Likert scale are adapted from Slavkovic and Babic (2014). The sampling frame is compiled from the Malaysian Qualifications Register (MQR), a national list of private colleges with their accredited programs maintained by the Malaysian Qualifications Agency (MQA). The non-probability sampling approach of convenience sampling is used since there is no satisfactory list of all the elements of the population available. Unit of analysis is at individual level. The targeted respondents participating in the survey are senior management, departmental managers, senior executives, senior lecturers and heads of programs (HOPs), who are deemed as talents in key positions. With 5 respondents per institution used, a total of 1750 questionnaires survey forms are distributed to 350 private colleges in Malaysia, out of which only 243 representing 49 private colleges are considered valid and usable and that provides the sample size for this study. A response rate of 13.9% (243/1750) is achieved. The variance-based PLS-SEM method is then deployed to test the hypothesized relationships in the model.

Measurement Model Evaluation

Prior to PLS-SEM analysis, common method variance bias is checked using Harman's single factor test since the data was collected from a single source of information through a single questionnaire. The un-rotated factor analysis has shown that the first factor is only accounted for 14.48% of the total 66.78% variance. As a result of this factor analysis, the variables studied are clearly factorizable, suggesting that common method variance bias is not a serious problem in our study.

A run on PLS algorithm is then to evaluate reliability and validity of the reflective measurement model. Referring to Table 1 below, one of the criteria to be assessed here is internal consistency reliability using the measure of composite reliability (CR). The results show that the values of composite reliability ranged from 0.8841 to 0.9347 which are above the recommended threshold value of 0.8. This has indicated the measures used to represent the constructs have achieved internal consistency reliability. However, Cronbach's alpha tends to underestimate the internal consistency reliability as it assumes all indicators loadings are equal (Hair et al., 2014). Our measurement model has also demonstrated adequate indicator reliability when each indicator's outer loading exceeds 0.708 and is significant at least at the level of 0.05. The item KM9 with loadings slightly less than 0.708 is retained because removing this item will not significantly increase the value of CR. Further, convergent validity of the measurement model is established when all the latent variables have average variance extracted (AVE) values ranging from 0.5663 to 0.6862 and all are above the critical value of 0.5.

Table 1. Results of the measurement model

Construct	Item	Loadings	AVE	Composite Reliability	T-Statistics	Cronbachs Alpha				
Talent Attraction and Recruitment	TAR1	0.8071	0.6376	0.8977	24.613	0.8574				
	TAR2	0.8451			43.009					
	TAR3	0.8030			23.557					
	TAR4	0.7995			23.405					
	TAR5	0.7338			20.256					
Talent Development	TD1	0.8198	0.6862	0.9291	31.633	0.9085				
	TD2	0.8394			40.595					
	TD3	0.7870			24.159					
	TD4	0.8515			39.251					
	TD5	0.8310			35.266					
	TD6	0.8400			32.072					
Talent Retention	TR1	0.8252	0.6050	0.8841	37.299	0.8366				
	TR2	0.7200			17.058					
	TR3	0.7293			16.626					
	TR4	0.7816			21.690					
	TR6	0.8262			30.099					
Knowledge Management	KM5	0.7404	0.5663	0.9288	23.126	0.9151				
	KM6	0.7894			22.208					
	KM7	0.7170			17.006					
	KM8	0.7236			15.542					
	KM9	0.7036			15.851					
	KM10	0.7799			23.775					
	KM11	0.7588			25.102					
	KM12	0.7408			17.097					
	KM13	0.7664			25.032					
	KM14	0.7991			31.636					
	Organizational Performance of Private Colleges	OP3			0.7144		0.6428	0.9347	14.675	0.9199
		OP4			0.7093				13.844	
		OP5			0.8555				39.977	
		OP6			0.8683				41.810	
OP7		0.8552	40.710							
OP8		0.7983	23.963							
OP9		0.8087	24.675							
OP10		0.7888	24.497							

Additionally, discriminant validity of the constructs is evaluated using one of the approaches which is Fornell-Larcker's criterion. The measurement model exhibits discriminant validity when the square root of each construct's AVE exceeds the

correlations between the construct and all other constructs in the model. The result of the construct's discriminant validity is presented as follows:

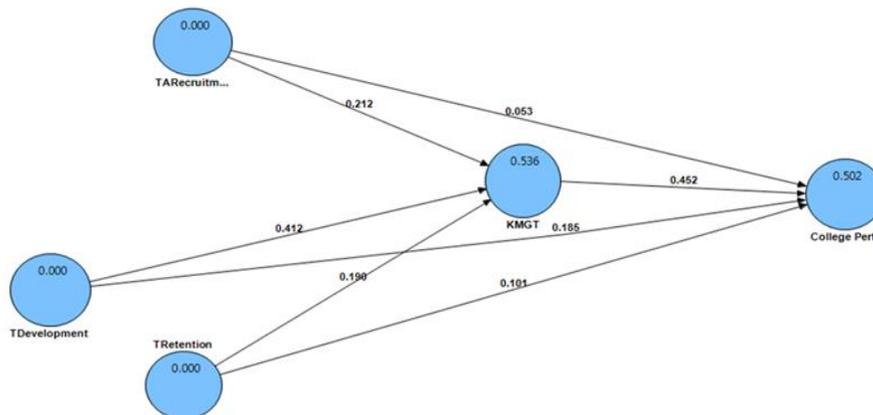
Table 2. Fornell-Larcker's criterion

	College Perf	KMG T	TARecruitment	TDevelopment	TRetention
College Perf	0.8018				
KMG T	0.6766	0.7525			
TARecruitment	0.5221	0.6149	0.7985		
TDevelopment	0.6083	0.6938	0.6755	0.8284	
TRetention	0.5557	0.6297	0.6553	0.7300	0.7778

Note: The Square Root of AVE in bold

Structural Model Evaluation

This paper then proceeds to test the hypothesized relationship between latent constructs within the structural model when reliability and validity of the measurement model are satisfactorily met. PLS-SEM technique is used to predict the key target construct of private colleges performance. To investigate the proposed hypothesis, as recommended by Hair et al. (2014), 5000 bootstrap samples from 243 observed cases originally used with a 'no sign change option' to estimate the path-model coefficients and their significance. The diagram below illustrates the structural model evaluation.



The model above shows that 53.6% ($R^2 = 0.536$) of the amount of variance of knowledge management (KMG T) is influenced by the practices of managing talent attraction and recruitment, talent development and talent retention whereas 50.2% ($R^2 = 0.502$) of the variance of organizational performance of private colleges (College Perf) is explained by the model. As such, the model provides a moderately strong predictive power (Chin, 1988a). Coupled with an omission distance, $D=7$ and 243 cases observed

in our study, a run on the blindfolding procedure in SmartPLS 2 further reveals that Q2 values are above zero, thus indicating the structural model exhibits predictive relevance for all the endogenous latent constructs (i.e. KMGT and College Perf).

The following Table 3 shows the results from the structural model assessed that support the proposed hypotheses H2, H4, H5, H6 and H7, all of which indicate the expected positive sign direction with path-coefficient estimates (β) ranging from 0.1851 to 0.4518. It is shown that managing talent development and knowledge management are significant predictors to organizational performance of private colleges. However, the practices of managing talent attraction and recruitment as well as talent retention are found to have not significantly related to organizational performance of private colleges and hence, the proposed hypotheses H1 and H3 are not supported.

In addition, the practices of managing talent attraction and recruitment, talent development and talent retention are each predicted to have a significant direct positive influence on knowledge management, among which managing talent development has the most significant impact on knowledge management followed by managing talent attraction and recruitment and after which is managing talent retention in influencing knowledge management among private colleges within the context of Malaysian private higher education business sector.

Table 3. Significance testing results of the structural model path coefficients

Hypothesis	Relationship	Standardized Beta Coefficient, β	Standard Error (SE)	t-Value	Decision
H1	TARecruitment -> College Perf	0.0529	0.0819	0.645	Not Supported
H2	TDevelopment -> College Perf	0.1851	0.0902	2.051*	Supported
H3	TRetention -> College Perf	0.1014	0.0949	1.068	Not Supported
H4	TARecruitment -> KMGT	0.2122	0.0810	2.621**	Supported
H5	TDevelopment -> KMGT	0.4115	0.0919	4.480**	Supported
H6	TRetention -> KMGT	0.1902	0.0885	2.151*	Supported
H7	KMGT -> College Perf	0.4518	0.0749	6.031**	Supported

Note: Significant at * $p < 0.05$ and ** $p < 0.01$

Evaluation of the Mediation Relationship in PLS Path Model

In conducting mediation analysis, this paper follows Preacher and Hayes (2008) to bootstrap the sampling distribution of the indirect effect. Bootstrapping is a non-parametric resampling procedure for testing mediation effects that makes no

assumptions of normality of the sampling distribution and is applicable to small sample sizes with more confidence (Hair et al., 2014). The significance of the indirect effect is tested using a bootstrapping routine with 243 observed cases, 5000 subsamples and a 'no sign change option' in SmartPLS 2.

The empirical results found in Table 4 below have supported the role of knowledge management (KMGT) in significantly mediating the relationships between managing talent attraction and recruitment (TARecruitment), talent development (TDevelopment) and talent retention (TRetention) each with respect to organizational performance of private colleges (College Perf).

Table 4. Significance testing results of the mediation relationship

Hypothesis	Relationship	Path Coefficient β	Standard Error (SE)	t-Value	Decision
H8	TARecruitment -> KMGT -> College Perf	0.0959	0.0403	2.379*	Supported
H9	TDevelopment -> KMGT -> College Perf	0.1859	0.0497	3.74**	Supported
H10	TRetention -> KMGT -> College Perf	0.0859	0.0438	1.961*	Supported

Note: Significant at * $p < 0.05$ and ** $p < 0.01$

As suggested by Preacher and Hayes (2008) followed by Hair et al.(2014), Table 5 below highlights the indirect effects 95% Boot CI: [LL=0.0169, UL=0.1749], [LL=0.0885, UL=0.2833] and [LL=0.0001, UL=0.1717] do not fall in between a zero within the confidence interval at the given significance level of 5% and thus, statistically confirming the mediation effects of knowledge management (KMGT).

Table 5. Bootstrapped confidence interval

Relationship	Indirect Effect	Standard Error (SE)	Lower Limit (LL)	Upper Limit (UL)	95% Bootstrapped Confidence Interval
TARecruitment -> KMGT -> College Perf	0.0959	0.0403	0.0169	0.1749	[LL = 0.0169, UL = 0.1749]
TDevelopment -> KMGT -> College Perf	0.1859	0.0497	0.0885	0.2833	[LL = 0.0885, UL = 0.2833]
TRetention -> KMGT -> College Perf	0.0859	0.0438	0.0001	0.1717	[LL = 0.0001, UL = 0.1717]

In determining the strength of mediation, we use Variance Accounted For (VAF) assessment recommended by Hair et al.(2014) whereby VAF is equal to the indirect effect divided by the total effect (i.e. direct effect + indirect effect). Since the assessment of VAF is larger than 20% but less than 80% (i.e. $20\% < VAF < 80\%$), we conclude that

knowledge management as the mediator variable partially mediates the relationship between managing talent practices and organizational performance of private colleges.

Discussion

The management of talent development is significantly contributing to the business performance of private colleges. This result corroborates with some past studies by Davies and Davies (2010) and Mohan, Muthaly and Annakis (2015) that regard talent development as fundamentally related to performance management of private academic institutions in leading to their organizational success. However, managing the newly attracted and recruited talents needs to spend time and effort necessary to learn and explore the business operations of the institutions before making any significant impact on the performance level of private colleges. It is also found that talent retention has not significantly influenced private colleges performance as employees with skill and knowledge are constantly looking for better job employment opportunities elsewhere to advance their personal growth and achievements. Further still, knowledge management has had a significant contribution to the performance level of private colleges. Such findings provide support to some past studies conducted in the Asian higher education context by Wah, Menkhoff, Loh and Evers (2007) as well as Cheng, Ho and Lau (2009) that suggest the higher the level activities of knowledge management, the better is the performance of educational institutions. This in turn is linked to the practices of managing talent attraction and retention, talent development and talent retention, from which each has a positive impact on knowledge management. In this study, knowledge management is identified as a linking mechanism that explains how the effects of managing talent practices are passed on to influence organizational performance of private colleges. Such empirical findings are consistent with the past studies of Kianto, Ritala, Spender and Vanhala (2014) as well as Inkinen, Kianto and Vanhala (2015). The practices of managing talent have therefore led to the establishment of knowledge management initiative through social network and interactive learning among all other employees within the organization that exerts a significant influence over the performance level of private colleges. To conclude, managing talent development and knowledge management are seen as two important factors in driving the organizational success of private higher academic institutions in Malaysia.

Limitations

One of the limitations is generalizability of the findings is only restricted to private colleges that are operating in private higher education business sector within Malaysia. It is therefore not possible to generalize the findings of this study across other populations. Any conclusions about causality cannot be drawn with certainty as the study is an exploratory cross-sectional study, in which it only provides a preliminary and static view of the phenomenon under investigation. It is also impossible to monitor all respondents from the private colleges identified who fill up the questionnaires on their own. Not all of the respondents could be considered as potential sources of talent to develop a

competitive advantage in providing core competencies to the private academic institutions.

Managerial Implications

This paper also makes some important managerial contributions as the model has shown a moderately strong predictive power, The top management of private academic institutions should prioritize their business investment into strategically managing the development of talent workforce through learning and development initiatives which encompass the competency based in-house development plan, e-learning, skill building as well as coaching and mentoring with the effort to engage key talents in delivering a sustainable business performance. By continuously investing in organizational talent development, these private colleges are better positioned to set up an effective knowledge management mechanism such as network multimedia to socially interact among individual talents to stay ahead of competition. It is therefore in the interest of private enterprise colleges to concentrate on talent-based knowledge management practices to gain competitive advantage for institutional growth and development in today's liberalized higher education business environment. Nevertheless, reducing investment spending in managing talent development is expected to adversely affect the organizational success of these private colleges over time.

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