

The effect of talent management and human capital on sustainable business performance: an empirical investigation in Malaysian hospitals

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Abstract

Purpose – This paper aims to examine the mediating role of human capital on the talent management in hospitals' sustainable business performance in the health-care sector of Malaysia.

Design/methodology/approach – The study used a quantitative approach, with an initial sample of 174 Malaysian hospitals. The theoretical framework was based on previous studies of talent management (TM), human capital (HC) and sustainable business performance (SBP). Partial least squares-structural equation modelling (PLS-SEM) was used to test the study's hypotheses.

Findings – Talent management mindset (TMM), but not talent management strategy (TMS), has a significant relationship with HC and SBP. HC has a significant direct relationship with SBP, and also mediates the relationship between TMM and SBP but not between TMS and SBP.

Research limitations/implications – This work is one of a limited number of studies to empirically address TM, HC and SBP in this context. The study is limited to Malaysian hospitals. It provides theoretical contributions by broadening the knowledge of HC, TM and the multifocal perspective of hospitals' SBP, a relevant but underexplored issue, offering several avenues for future research.

Practical implications – The findings have beneficial practical implications for both policy makers and managers. First, focusing on talented people will directly improve sustainable performance in the Malaysian health sector. The findings also have important theoretical implications both for Malaysia and countries in similar situations. The study will serve as a reference point for such countries in trying to understand factors influencing SBP.

Originality/value – This is the first study to examine the mediating effect of HC on the relationship between talent management and hospitals' sustainable business performance in Malaysia, or worldwide.

Keywords Human capital (HC), Talent management strategy (TMS), Sustainable business performance (SBP), Talent management mindset (TMM), Talent management (TMM)

Paper type Research paper



1. Introduction

Recent decades have witnessed dramatic changes affecting the world of business: globalization, the intensity of global competition, the changing demand for quality by customers, the rapid development of technology, in addition to the emergence of the phenomenon of empowerment of workers. This has been paralleled by significant and remarkable developments in talent management (Whysall *et al.*, 2019; Mohammed *et al.*, 2018; Cappelli and Keller, 2017), involving important intellectual and philosophical re-thinking in dealing with human factors (Krzywdzinski, 2019; Weisblat, 2019). These and other variables have imposed a new reality on business organizations, focusing attention on the distinct human resource of unique talent (Crane and Hartwell, 2019), and suggesting that this important resource be managed with specialized professionalism (Chan *et al.*, 2020; Muratbekova-Touron *et al.*, 2018).

This development in the field of human resource strategy, and its role in discovering and attracting highly talented and skilled employees, has led to a focus on human talent and how to manage it (Bethke-Langenegger *et al.*, 2011; Deery, 2008; Cheese *et al.*, 2007), to handle the successive changes that this century is witnessing. Thus, talent management has become an essential element of human resource management (Baum, 2019; Hargreaves, 2009), with the emphasis on attracting and retaining new types of human resources characterized by know-how, high levels of knowledge and distinct ability (Snell *et al.*, 2015; Holbeche, 2009). This called for a review of previous thinking, including the extension of human resources management into the school of human resources management strategy (Langford *et al.*, 2014; Scullion and Collings, 2011; Pilbeam and Corbridge, 2010). Many management scholars believe that achieving success in the twenty-first century requires fundamental changes in business philosophies, systems and governing policies (Van Kemenade and Hardjono, 2019; Whitehead *et al.*, 2017), and that success in current and future circumstances requires a mixture of distinctive capabilities that help achieve innovation, quality and flexibility (Harsch and Festing, 2020; Deters, 2017; Lawler, 2010; Caplan, 2010; Cheese *et al.*, 2007). Accordingly, talent management is defined as attracting, developing and retaining high-performing employees (Heinen and O'Neill, 2004); it is a concept that describes all the means through which a company attempts to attract, manage, motivate, encourage, reward, train and develop employees (Hartmann *et al.*, 2010), and is relevant to every type of organization which aspires to sustain high performance (Al Aina and Atan, 2020; Johnson *et al.*, 2019; Crane and Hartwell, 2019; Maurya and Agarwal, 2018; Glaister *et al.*, 2018).

To date, no study has examined the relationship between talent management (TM) and sustainable business performance (SBP), or how TM can contribute to a firm's sustainable performance. This is a serious gap which our study aims to fill. Despite many studies which shed light on TM, other gaps remain. First, although a few scholars have analysed the role of TM in two dimensions (Mahfoozi *et al.*, 2018; Waheed *et al.*, 2013), most see it as a unidimensional construct, treating it as a single indicator (Budhwar and Bhatnagar, 2007). Our study aims to fill this gap by using two indicators, talent management mindset and strategy (TMM and TMS), to capture SBP. Second, we use human capital (HC) as a mediator in the relationship between TM dimensions and SBP, a unique contribution to the body of knowledge. We explore the relationships between TMM and TMS on SBP and examine the underlying, mediating impact of HC in these relationships in Malaysian hospitals, which are facing a serious TM problem. This problem was confirmed in a World Bank report which focused on low expenditure in the health sector: total government spending was 3.8% of GDP in 2016, 3.71% 2017 and 3.76% in 2018 (WorldBank, 2021). In 2019, Malaysia came 35 in world talent ranking, which suggests a lack of interest in the refinement of human talent as the most significant phenomenon in achieving superior SBP (WTR, 2019). Our findings

contribute to TM research by decomposing it into the two dimensions, which help us to recognize the different sources of TM capabilities.

The remainder of this paper is structured as follows. Section 2 reviews the literature and proposes the study hypotheses. Section 3 discusses the quantitative research methodology used, and Section 4 describes the screening of the data, and the results of hypothesis testing. Finally, in Section 5, we discuss our study's contributions, practical implications, limitations and future research.

2. Ethical values and their impact on Malaysian hospitals

Every profession has its own ethics, and there is no doubt that working in the health field is primarily humanitarian, requiring the health practitioner to adhere to lofty ethics that preserve the patient's dignity and guarantee the provision of the best possible health care. The health employee delivers this in practice (Pariyo and Lucas, 2019). Health professions adhere to rigorous principles, of which ethics is the most important. It is a privilege to care for patients and consider their needs and affairs. From working with patients, these professionals have a good sense of their suffering. While understanding all the details of their patients' condition, to give appropriate treatment, they must preserve the medical secrets (Rankin *et al.*, 2005). Ethical aspects in the field of healthcare are a goal and not a slogan, especially in light of current developments and progress in the health sector. Work ethics is a priority in every area of health care (Burki *et al.*, 2021; Seedhouse, 2008).

The health sector is of great importance in terms of raising people's quality of life and building a healthier society; institutions operating in this sector thus make a significant contribution to the lives of individuals and society (WHO, 2019). The profession therefore depends on morals, values, humanity and conscientiousness in dealing with patients (Kälvemark Sporrang *et al.*, 2007). All workers in the health sector must practise these ethics, which should be taught to medical students, putting science and ethics before the work itself (Shafique *et al.*, 2018; Reamer, 2018).

Pulapa (2020) indicated that ethics is the main element on which the excellence and development of organizations depends, and that a business loses its effectiveness without a degree of trust and honesty. Legal costs may result from unethical dealings. Decision makers must make ethical choices, whether positive or negative (Joshi, 2017).

Following an increase in violations in the health sector and the criticism directed at this sector worldwide, stress is laid on adopting clear and transparent ethical frameworks. There was a lack of interest in ethical foundations, standards and practices, where doubling profits was a major goal in a large number of these health facilities (Johnson, 2020; WHO, 2017). Ethical issues have therefore become of great importance, with health organizations racing to issue ethical principles and reformulate goals and policies in a way that highlights their moral responsibility (Chatterjee and Srinivasan, 2013).

With regard to the health sector in Malaysia, the focus of our study, the government is making great efforts to expand and develop health-care services; 5% of the public budget sector goes to the development of healthcare, an increase of 47% over the previous figure. This means a total increase of more than two billion Malaysian ringgit (MHM, 2021; Aswaqpress, 2021). As a result of the increase in the size and age of the population, the government aims to re-equip existing hospitals, build new ones, expand the number of clinics, and improve the training of medical staff (Jaafar *et al.*, 2021). Over recent years, the Malaysian Ministry of Health has increased its efforts to reform the system and attract more foreign investment (Croke *et al.*, 2019). The country generally has an efficient and extensive healthcare system (Roza *et al.*, 2019; Chuah *et al.*, 2019), although the majority of

private hospitals are located in urban areas; unlike many public hospitals, they are equipped with the latest diagnostic and imaging facilities (Moghavvemi *et al.*, 2017).

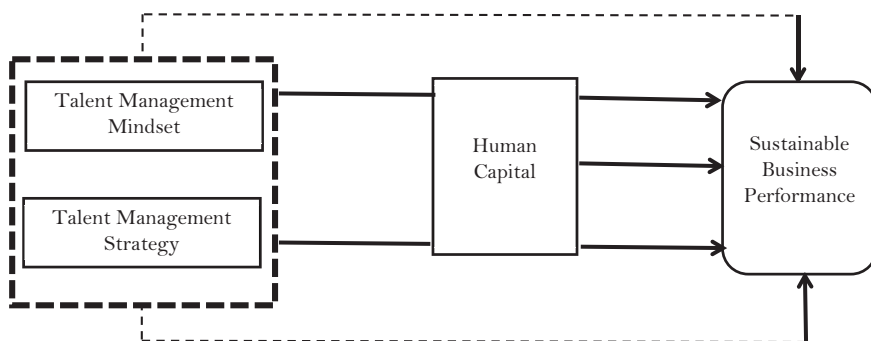
Recognition of ethics may greatly affect Malaysian hospitals (Sulaiman and Alias, 2006), although there are many requirements that they must take into account which will directly affect the sustainability of their performance (Ahmad and Saad, 2020). For example, hospitals may face lawsuits for failing to adhere to ethical standards, confirming the importance of ethical behavior. Ethics also enhance the reputation of hospitals at local, regional and international levels, with a positive impact on the health sector as a whole. Obtaining international recognition and special privileges is also coupled with the hospitals' commitment to ethical standards, within the framework of providing an outstanding level of health care, through honest work, mutual trust and reliability.

Finally, adherence to professional ethical principles will inevitably lead to an increase in the effectiveness of the Malaysian health sector and improvement of its services, contributing to the sustainability of superior performance and increasing the market share of Malaysian health facilities (Ithnin *et al.*, 2018). The health sector is the first concern of the population, and societies founded on the basis of excellence in this sector are distinctive. This enables them to meet the needs of their people, because they care about health, raise its status and work to develop it continuously (Jaafar *et al.*, 2021; Voon *et al.*, 2014).

3. Literature review

3.1 Talent management

Talent management is an important factor in a firm's sustainable performance (Tamunomiebi and Worgu, 2020), playing a leading role in distinguishing all aspects of the organization from others (Ewerlin and Sub, 2016). That is, TM is a decisive factor that provides organizations with a unique competitive position; it has become an important weapon in seizing market opportunities through the creativity and innovation of talented personnel (Scullion and Collings, 2011). A TM system consists of several components aimed at achieving the goals of the company (Son *et al.*, 2020; Pandita and Ray, 2018). It can be defined as a set of procedures and processes that translate the company's strategy and vision into integrated operational and application programmes to reach excellence (Deters, 2017). It effectively contributes to ensuring the existence of a complete and continuous supply of talent (Turner, 2017; Al Ariss *et al.*, 2014), that is building a succession to retain or replace an individual at short notice or in a planned form within the work. Talent management is a culture based on adopting a number of principles and methods that create the conditions and the appropriate climate for the emergence and growth of talent (Talpoş *et al.*, 2017; Rothwell, 2011; Hills, 2009). Some scholars have tried to clarify the dimensions of TM, Schreuder and Noorman (2019) for example conceptualizing it as a two-dimensional model composed of TMM and TMS; their study makes a unique contribution to the field of TM. Tamunomiebi and Worgu (2020) identified talent acquisition, talent development and talent retention as dimensions of TM. Van Zyl's (2017) important contribution to TM dimensions included attraction, sourcing and recruitment, deployment and transitioning, growth and development. According to human capital theory (Schultz, 1961), interest must be extended from mere attention to the material components of capital to concern for the less material components, that is human capital; HC considers the skills and knowledge of an individual as a form of capital in which investment can be made. Given that the two-dimensional framework of Mahfoozi *et al.* (2018) is more comprehensive for TM, we use the two dimensions: mindset and strategy (TMM and TMS). The theoretical framework of this study is presented in Figure 1.

Figure 1.
Research model

Previous studies have explored the concept of TM in different contexts, including the gas sector (Gardas *et al.*, 2019) and the hospitality sector (Chung and D'Annunzio-Green, 2018). Several have focused on the impact of TM on strategic opportunities (Schuler *et al.*, 2011); the challenges of Industry 4.0. (Whysall *et al.*, 2019); competitive advantage (Abu-Darwish *et al.*, 2021); and strategic renewal (Järvi and Khoreva, 2020). Talent management studies initially concentrated on countries with greater knowledge intensity, such as the UK, Canada, Germany and Italy (Kim and Scullion, 2011; Glenn, 2012; Ewerlin and Sub, 2016; Guerci and Solari, 2012), but interest has spread to Brazil (Reis and Quental, 2014), South Africa (Barkhuizen, 2014), China and India (Cooke *et al.*, 2014), South Korea (Park, 2020) and Egypt (Mousa and Ayoubi, 2019). Specific studies have considered the success factors of TM in relationship to performance, show that it has a significant influence on performance (Latukha and Veselova, 2019; Glaister *et al.*, 2018), while Salau *et al.* (2018) found a significant relationship between TM and firms' innovation performance. Aguinis and Burgi-Tian, (2021) found that even during the COVID-19 crisis and the challenges facing organizations, there was a significant correlation between TM and performance. While many researchers and specialists have pointed out that there are many factors that help in the success of talent management (Harsch and Festing, 2020; De Boeck *et al.*, 2018; Tafti *et al.*, 2017), others have begun to call these factors strategies for dealing with talent management, falling on the shoulders of human resources management to provide it for all divisions and units of the company to achieve the strategic goals of the organization as a whole. Therefore, our study proposes the following hypotheses:

- H1. TMM will have a positive effect on hospitals' sustainable business performance in Malaysia.
- H2. TMS will have a positive effect on hospitals' sustainable business performance in Malaysia.
- H3. TMM will have a positive effect on hospitals' human capital in Malaysia.
- H4. TMS will have a positive effect on hospitals' human capital in Malaysia.

3.2 Human capital

Recent priority on the importance of human capital in the knowledge economy (Di Fabio and Peiró, 2018) may lead to a global struggle for talented personnel (Suseno and Pinnington, 2017), in a similar conflict to between peoples over geographic expansion.

Successful organizations have adopted the principle of caring for the human element as a powerful and important influence giving them a unique competitive advantage (Pereira *et al.*, 2020; Delery and Roumpi, 2017), especially in this age of technology (Khan *et al.*, 2020). Human capital is the keyword in prolonging the survival of organizations in an environment full of fierce competition (Cao and Im, 2018), consisting of talented individuals with unique competencies, intelligence and skills that fit current requirements (Valk, 2021; Agolla, 2018). Human capital is nevertheless an intangible asset (Schneider, 2018), at a time when owning machinery and equipment is no longer a source of distinction between organizations, replaced by the need to obtain rare human competencies (Cantoni and Mangia, 2018; Hecklau, *et al.*, 2017). If organizations lose their skilled workers they become uncompetitive, and this is the difference between tangible and intangible human capital (Riley *et al.*, 2017). Traditionally, the HC literature has shown a significant relationship with superior performance (Adesina, 2021; Brixiová *et al.*, 2020; Tjahjadi *et al.*, 2020), although strategies for creating added value for organizations vary according to their human capital, whether aiming for innovation or high-quality products (Kianto *et al.*, 2017). This is reflected in the organization's ability to create value from human capital in the form of revenue or a competitive strategic position (Minbaeva, 2018). Service organizations, in particular, achieve value through the knowledge of their human capital, which appears in the form of reputation or loyalty to clients (Liu and Jiang, 2020; Nieves and Quintana, 2018; Úbeda-García *et al.*, 2018). Human capital may also have a defensive role in protecting products and services achieved from human capital innovations, and the freedom to circulate products; and an offensive role such as amassing product revenues, assets and intellectual property, and defining a basis for strategic alliances (Boudreau and Ramstad, 2007). Arguing that the skills required for the health-care sector are more complex than in other sectors, because mistakes have catastrophic consequences, Fiano *et al.* (2020) and Mandal (2018) underline that health sector employees must systematically possess and obtain knowledge as a core driver of superior performance. Strong interaction between human capital and the performance and creativity of frontline health services largely impact patients' perceived value (Peng *et al.*, 2007; Abazeed, 2017). This confirms the strong relationship between HC and performance, in line with several authors (Yarovaya *et al.*, 2021; Gerrard and Lockett, 2018; Martin-Sardesai and Guthrie, 2018) who demonstrate that HC is pivotal in positively affecting performance. Pirozzi and Ferulano (2016) agree that HC is positively related to performance in service firms, especially the health-care sector. Odhón'g and Omolo, (2015) reported a significant HC-company performance relationship in the pharmaceutical industry in Kenya, supporting the findings of Yang and Lin (2009). Cheng *et al.* (2010) explored the same relationship in the US health sector and reported a high correlation between HC and performance. By analyzing the importance of human capital skills and knowledge, our work assumes that HC will be a main driver of performance, and we hypothesize:

H5. Human capital will have a positive effect on hospitals' sustainable business performance in Malaysia.

We also expect HC to mediate the relationship between TM dimensions and SBP in the following ways. TM has a clear role in sustaining the superior performance which distinguishes an organization from its competitors (Park, 2020; Latukha and Veselova, 2019). Managers have to embrace the culture of HC and TM with a unique vision, adapting this vision to changing circumstances and the business environment (Meyers *et al.*, 2020; Macfarlane *et al.*, 2012). Human capital is the value that workers provide through their skills and experience, a collective human capacity to solve problems (Jakubik, 2019). It also includes how effectively an organization uses its employees' resources, as measured by

creativity and innovation; talent is inherent in and cannot be owned by a specific organization. More importantly, HC comprises different elements (Vidotto *et al.*, 2017) and is often referred to as an intellectual creation, providing a streamlined view of events, decision-making processes and competitive position with the help of experienced, skilled and competent employees, enhanced technologies and systems and robust customer relations (Liebowitz, 2004). In sum, HC reflects the accrued human resources within the firm, with the inclusion of knowledge along with human characteristics (Chadwick, 2017). Also HC assets were revealed to significantly impact firm value (Veltri and Silvestri, 2011). Similarly, HC significantly affects profitability by improving efficiency and productivity (Nguyen, 2020; Coleman, 2007; Sydler *et al.*, 2014). Waseem *et al.* (2018) developed a model to examine the effects of HC on innovation capability and organizational performance. They reported significantly positive direct effects between HC on both variables. Additionally, by using the philosophy to justify its mediating role in the relationship between TM and SBP, Alqershi *et al.* (2019) and Raineri (2017) recommended that HC can contribute to sustainable performance.

Few studies examine the contribution of individual HC to the performance of the health sector in Malaysia, especially its mediating effect on the relationship between TM dimensions (TMM-TMS) and SBP, another gap which needs to be filled. We therefore hypothesize:

- H6. The positive effect of TMM on hospitals' sustainable business performance in Malaysia will be mediated by human capital.
- H7. The positive effect of TMS on hospitals' sustainable business performance in Malaysia. Will be mediated by human capital.

4. Research methodology

4.1 Sample and procedure

This study adopts a cross-sectional quantitative design in which respondents' views are recorded at one specific time. Primary data was collected from the general managers of Malaysians hospitals, using an online survey questionnaire. A random sampling technique was used to select the hospitals and managers. Malaysia has 404 hospitals (Statista, 2019), and according to Krejcie and Morgan's (1970) table, we need to collect data from 201; to ensure that the required number of questionnaires was reached, the authors distributed 275. A total of 193 questionnaires were returned, but 19 were cancelled because of missing data. PLS-SEM analysis was carried out on the 174 valid questionnaires to test the proposed hypotheses. Descriptive analysis was carried out by SPSS to determine the characteristics of the sample in terms of age, working experience, education level, gender and number of employees (Table 1).

4.2 Measurements of the study

Two dimensions were used for TM, the independent variable (IV): mindset and strategy (TMM and TMS) and 14 items were adapted from Mahfoozi *et al.* (2018); ten items were adopted from Sharabati *et al.*, 2010) (for the mediating variable (HC); and finally the dependent variable (DV), SBP, was measured using an eleven-item scale adapted from Haseeb *et al.* (2019); and Khan *et al.* (2021). The respondents were asked to rate the level of their agreement with each of the items on a five-point scale from 1 (strongly disagree) to 5 (strongly agree).

	Effect of talent management	
<i>Age</i>		
1= less than 26	0	
2 = 26 to 30 years	4	
3 = 31 to 35 years	64	
4= Above 35	106	
<i>Working experience</i>		
1= Less than 5 years	1	
2 = Between 5 and 10 years	48	
3 = Between 10 and 20 years	93	
4 = Above 20 years	32	
<i>Gender</i>		
1= Male	31	
2 = Female	143	
<i>Education</i>		
1 = School certificate	0	
2 = Diploma	1	
3 = Degree	148	
4 = Postgraduate Degree	25	
Others	0	

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Table 1.
Demographic characteristics of the respondents

5. Empirical results

5.1 Assessment of the measurement model

The two-step approach (Alqershi *et al.*, 2021a, 2021b; Astrachan *et al.*, 2014) was adopted. The first is to evaluate the convergent validity and reliability, and once the model meets the following criteria, they will be acceptable: for convergent validity, loadings must be more than 0.5 and we should delete any values less than this figure (Hair *et al.*, 2020). Composite reliability must be more than 0.7 (Hair *et al.*, 2020). Finally, our study was in line with Fornell and Larcker's (1981) recommendations that average variance extracted (AVE) must be more 0.5 (Alqershi *et al.*, 2021a, 2021b). All our latent variables met the cutoff criteria, 0.50 indicating sufficient discriminant validity, the results of the measurement model showed that 3 of 35 items were deleted because of out-of-range loadings, thus, in the whole model 32 items were retained due to their loadings range between 0.503 and 0.880 as show in Figure 2 and Table 2.

5.2 Discriminant validity

The next step is examining discriminant validity which, according to Henseler *et al.* (2009), is the level to which a certain latent construct differs from its counterparts. Table 3 shows the DV results using the HTMT criterion, where HTMT values higher than the pre-identified threshold shows a paucity in discriminant validity for the latent variables that are compared. The accurate pre-identified threshold is debatable in that some authors suggested the value of 0.85 (Henseler *et al.*, 2009). Based on the table results, the study model's CV, R and DV are acceptable.

5.3 Assessment of significance of the structural model

After the measurement model, structural model assessment is carried out, and our study used 500 bootstrap samples and 174 sample cases to determine the significance of the path coefficients; see Table 4 and Figure 3. First, we looked at the R^2 of the 2 endogenous constructs of HC and performance. HC showed an R^2 of 0.174 ($Q^2 = 0.091$) i.e.; 17.4% of the

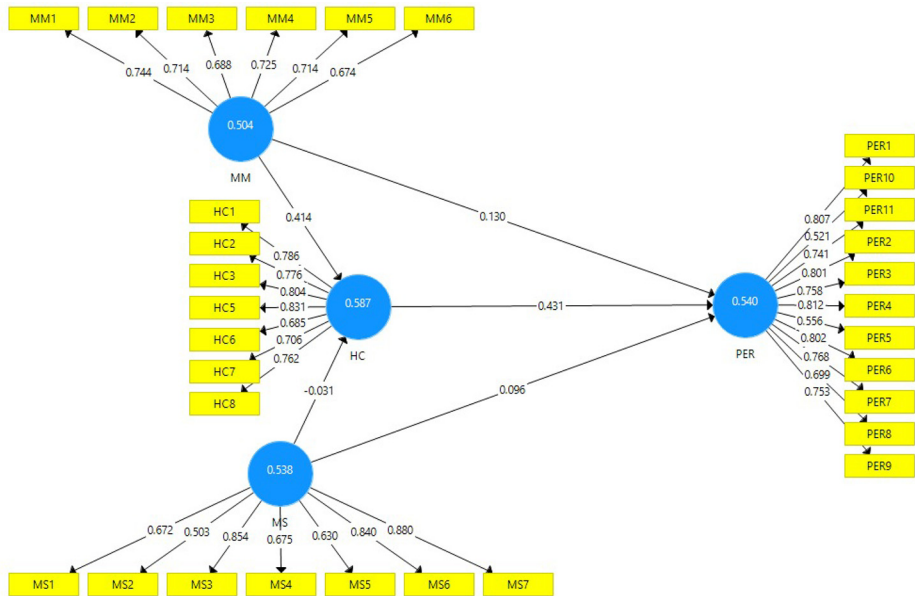


Figure 2.
Measurement model

variance was explained while for performance showed an R^2 of 0.253 ($Q^2 = 0.105$) i.e.; explaining 25.3% of the variance was explained

First, we tested the direct effects (Table 4), TMM ($\beta = 0.130, p < 0.05$) was positively related to sustainable performance, while and TMS ($\beta = 0.096, p > 0.05$) was not significant. Thus, $H1$ was supported while $H2$ was not supported. TMM ($\beta = 0.414, p < 0.01$) was positively related to human capital while and TMS ($\beta = -0.031, p > 0.05$) was not significant. Thus, $H3$ was supported while $H4$ was not supported. Finally, HC ($\beta = 0.431, p < 0.01$) was also positively related to performance supporting $H5$.

After we examined the direct relationships, we tested the mediating effect (Table 5), positing that HC mediates the significant relationships between TMS and SBP. HC did not mediate the relationship between TMS and SBP ($\beta = -0.014, p > 0.05$); hence, $H6$ was not supported, while HC was found to mediate the relationship between TMM and performance, the result ($\beta = 0.179, p < 0.01$) means that $H6$ is supported.

R^2 size was used to test the model's predictive relevance ability, another calculation that needs to be conducted in the structural model. Predictive relevance of the model can be assessed with the help of the Stone–Geisser criterion that assumes the inner model's requirement provides evidence of predicting the indicators of endogenous latent construct. Assessment of predictive relevance is carried out using Stone Geisser's Q^2 test, measurable through blindfolding procedures (Hair *et al.*, 2011). Q^2 of HC ($Q^2 = 0.119 > 0$), and SBP ($Q^2 = 0.153 > 0$) confirmed the predictive relevance of the model. Finally, the R^2 of the study model also confirmed the predictive relevance of the research model which explained 42.1 of HC and 22.6 of SBP; Table 6 presents the results of R^2 and Q^2 .

Further to that as suggested by Shmueli *et al.* (2019) we tested predictive power using the PLS-Predict with a five-folds. Shmueli *et al.* (2019) suggested that if all the item differences (PLS-LM) were lower than there is strong predictive power and based on Table 7, all the errors of the PLS model were lower than the LM model thus we can conclude that our model has a strong predictive power.

Constructs	Items	Loadings	Cronbach's alpha	rho_A	Composite reliability	Average variance extracted (AVE)	Effect of talent management
MM	MM1	0.744	0.805	0.810	0.859	0.504	325
	MM2	0.714					
	MM3	0.688					
	MM4	0.725					
	MM5	0.714					
	MM6	0.674					
MS	MS1	0.672	0.850	0.871	0.888	0.538	
	MS2	0.503					
	MS3	0.854					
	MS4	0.675					
	MS5	0.630					
	MS6	0.840					
	MS7	0.880					
HC	HC1	0.786	0.882	0.888	0.908	0.587	
	HC2	0.776					
	HC3	0.804					
	HC5	0.831					
	HC6	0.685					
	HC7	0.706					
	HC8	0.762					
	PER	PER1					0.807
PER10		0.521					
PER11		0.741					
PER2		0.801					
PER3		0.758					
PER4		0.812					
PER5		0.556					
PER6		0.802					
PER7		0.768					
PER8		0.699					
PER9	0.753						

Table 2.
Loadings, composite reliability and average variance extracted

Construct	HC	MM	MS	PER
HC				
MM	0.487			
MS	0.108	0.157		
PER	0.504	0.338	0.115	

Table 3.
Discriminant validity (HTMT ratio)

6. Discussion

Talent management issues have begun to appear in many areas of our lives (political, economic, business, social and even sport), with increased interest in its effects through human capital on the sustainability of performance through the application of a wide range of styles.

Despite the pivotal role of talent in contributing to high performance, only a limited number of organizations and nations are fully aware of the basic mechanisms through which talent management affects the delivery of a unique performance. The traditional role

of human resources management is beginning to wane, replaced by a new version which incorporates human talent management. Through human talents, management is looking to reserve a major seat at the strategic planning table to achieve competitive advantage, and to provide the necessary learning and knowledge for practitioners in today's world. Thus, the gradual emergence of human talent management over recent decades has reformulated the relationship between human factors and management.

Our work provides insights into talent management mindset and strategy, a unique contribution to the management field, where a research gap exists in the context of the health sector worldwide. In addition to the talent management literature, our work contributes to the literature of sustainable business performance of the health sector by focusing on what talent initiatives have been taken in a hospital setting to improve sustainable performance, a relatively unexplored area in a health sector and especially in Southeast Asia including Malaysia.

Our model results show a direct effect of TMM on HC and SBP ($\beta = 0.217$, $t = 3.241$, $p < 0.01$) ($\beta = 0.217$, $t = 3.241$, $p < 0.01$), respectively, and this result is in line with human

Table 4.
Hypotheses testing
(direct)

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	p-value	BCI LL	BCI UL	f ²
H1	MM → PER	0.130	0.071	1.816	0.035	0.003	0.241	0.02
H2	MS → PER	0.096	0.102	0.938	0.174	-0.124	0.214	0.01
H3	MM → HC	0.414	0.073	5.647	$p < 0.001$	0.270	0.515	0.21
H4	MS → HC	-0.031	0.096	0.327	0.372	-0.164	0.138	0.00
H5	HC → PER	0.431	0.074	5.855	$p < 0.001$	0.283	0.540	0.21

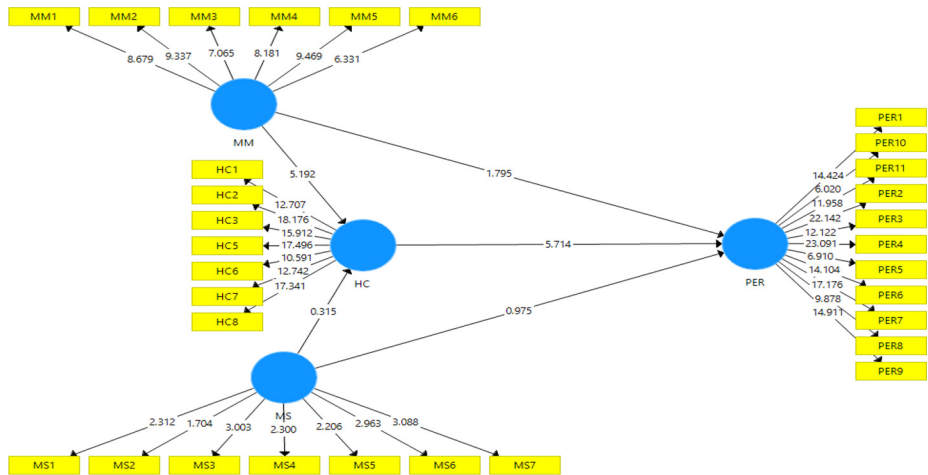


Figure 3.
Structural model

Table 5.
Hypotheses testing
(indirect)

Hypothesis	Relationship	Std. beta	Std. error	t-value	p-value	BCI LL	BCI UL
H6	MS → HC → PER	-0.014	0.043	0.312	0.377	-0.078	0.062
H7	MM → HC → PER	0.179	0.045	3.943	$p < 0.001$	0.111	0.257

capital theory (Collings, 2014; Collings and Mellahi, 2013), which explains that talent is the secret of success, and all employees must be treated as having talents; it is necessary to know the real talents of staff and to refine and develop their skills (Eisenberger *et al.*, 1986), leading to sustainability performance (Al Aina and Atan, 2020). This result can be explained by the fact that developing and maintaining a talented workforce, will automatically affect human capital, which in turn will achieve the organization’s goals in productivity, profit and growth, indicating the importance of the human element talent management.

Regarding *H5*, the results show a significant relationship between human capital and Malaysian hospitals’ sustainable performance ($\beta = 0.201$, $t = 1.952$, $p < 0.05$), in line with previous studies (Alvino *et al.*, 2020; Januškaitė and Užienė, 2018; Xu and Wang, 2018). Other studies concluded that firms can succeed by focusing on the skills of human capital and objectives to achieve SBP if aware of the competitive level and their ability to develop (Hitka *et al.*, 2019; Monday, 2015; Hatch and Dyer, 2004). Our study confirms that SBP can be discerned via its value-added human capital components, namely, structure and human components, differentiating its value from its competitors’. However, a company should know how to sustain its attractiveness and to promote itself within its industry. This is only possible if it uses its resource capabilities to the maximum. Firms must also be aware of HC, and the way to employ it and develop it, to maintain and enhance the market demands based on the competitive paradigm of performance. This confirms the notion that HC as the knowledge that can be channelled to create value plays an important role and is the most powerful competitive weapon in influencing SBP.

In addition to the direct relationship between talent management and performance, Alqershi *et al.* (2019) emphasized that scholars have shown an interest in the mediating role of human capital (Rezaei *et al.*, 2021; Subramony *et al.*, 2018; Nieves and Quintana, 2018). We provide confirmatory evidence for the mediating effect of human capital in the relationship between TMM and SBP, which means that *H6* is supported. As talent management has become the backbone of SBP, firms should make the most of their unique human capital,

Endogenous variables	R^2	Q^2
HC	42.1	0.119
SBP	22.6	0.153

Table 6.
Predictive relevance (R^2) and (Q^2) values

MV	PLS		LM		PLS - LM	
	RMSE	MAE	RMSE	MAE	RMSE	MAE
PER1	1.035	0.819	1.132	0.883	-0.097	-0.064
PER2	0.969	0.778	1.021	0.797	-0.052	-0.019
PER3	1.036	0.848	1.132	0.893	-0.096	-0.045
PER4	0.979	0.768	1.062	0.808	-0.083	-0.040
PER5	0.958	0.704	1.038	0.753	-0.080	-0.049
PER6	1.035	0.817	1.139	0.880	-0.104	-0.063
PER7	0.967	0.780	1.028	0.810	-0.061	-0.030
PER8	1.057	0.869	1.158	0.925	-0.101	-0.056
PER9	1.031	0.826	1.113	0.873	-0.082	-0.047
PER10	0.992	0.739	1.065	0.785	-0.073	-0.046
PER11	1.077	0.862	1.160	0.913	-0.083	-0.051

Table 7.
PLS-Predict

confirming its mediating role; nevertheless, while existing resources include talent, the continual market changes will threaten future economic growth and business performance unless they change their strategies to meet the future challenges Malaysian hospital managers need to pay more attention and interest to TM by utilizing human capital in line with the current scientific revolution, and the move from the industrial economy to the knowledge economy.

7. Theoretical implications

Our work contributes to the literature by increasing knowledge of talent management, which has recently become an important phenomenon for organizations and nations. Several studies have commented on the importance of talent management practice for superior performance, but none has examined the link between TM, HC and SBP. Our work thus conceptualizes talent management from the view of human capital theory, providing a clear picture of how talent management is linked to sustainable business performance via human capital.

Our empirical work illustrates direct and indirect relationships between TM, HC and SBP and the significant function of HC in mediating the relationships between TMM and SBP in the Malaysian context. It makes a unique contribution to the body of knowledge by encapsulating TMM, HC and SBP in the context of the health-care sector of Southeast Asian countries, filling the gap in the literature of quantitative studies dedicated to TM and SBP in hospitals.

Our results are also significant for the study hypotheses in the direct relationships TMM-HC, TMM-SBP and HC-SBP. The mediating influence of HC in the relationship between TMM and SBP was also supported, illustrating future avenues to examine SBP. To the authors' knowledge, no study had previously investigated these relationships. Our work also shed light on the TM contents, TMM and TMS, in Malaysian hospitals. This is pertinent as talent management is a broadly structured strategy for hiring, training and retaining top performing employees, and yet the impact of TM on the healthcare sector's SBP had been rarely studied until our work.

Another theoretical contribution to the literature is our investigation of the TM, HC and SBP relationship. Although previous studies have argued that talent management efficiency is more notable in some sectors than others (Meyers *et al.*, 2020; Bethke-Langenegger *et al.*, 2011), our work is the first to study its relationships in the health-care sector, specifically Malaysian hospitals.

8. Practical implications

This paper also contributes to the work of practitioners, and also has implications for policy makers, including the Malaysian Ministry of Health. We investigated why TM used by Malaysian health organizations might solve the problem of failing to maintain sustainable performance, with its negative effects on the national GDP and low expenditure on the healthcare sector, as reflected in the World Bank (2021) report already referred to.

This crucial problem can be solved by investing more in talented people, which will directly improve sustainable performance which in the health sector. According to the Malaysian Ministry of Health (2021), the large number of hospitals is indicative of the importance of this sector to the economy. Our work thus contributes by providing solutions via empirical results to this serious problem. This paper also contributes to practice by shedding light on the significant relationship between TM and SBP and the mediating role of HC in this interesting relationship. This finding contributes by making practical recommendations to hospital managers, who need to be aware of the implications of their

commitment to talent management and HC for the SBP of hospitals. They need a more concentrated attempt to promote talents and build up their human capital to achieve sustainable performance. Similarly, policy makers need to pay more attention to TM to resolve the problem of Malaysian hospitals' failure to maintain SBP.

9. Limitations and future research

As in all business studies, our work has limitations. First, we adopted a cross-sectional design for the survey, in which data is gathered at one point in time over a six-month period. The alternative, a longitudinal study, is impractical here because of limited time and cost. The researcher personally administered the questionnaires to the respondents (Sekaran and Bougie, 2016), in this case general managers. Future researchers might explore the relationship of TM with business performance by using qualitative techniques, to provide in-depth knowledge of the issues.

Second, the sampling of our work was limited to hospitals in Malaysia. Future studies may investigate TM in other sectors in Malaysia, for example, sport or music, or engineering. Such studies will further enrich the literature and provide a basis for comparison of the results with those of the present study. Additionally, our work is limited to hospitals in Malaysia and so it is not appropriate to generalize our results to another sector such manufacturing or engineering, with different missions, duties and visions.

Third, our findings may be suitable for hospitals in Malaysia and Southeast Asian countries with similar cultures, although not for countries on other continents due to their different organizational structures and administrative patterns.

Fourth, our work used HC as a mediating variable, as shown in Figure 1. Future studies could use different mediating variables such as organizational learning, whose content can contribute to talents and sustainable business performance. Finally, our work used two TM dimensions, namely mindset and strategy (TMM and TMS). It would be interesting to explore other dimensions of TM which might affect their relationship with SBP or efficiency.

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