Talent development as a source of sustainable competitive advantage for higher education institutions during the COVID-19 pandemic

Orientation: The coronavirus disease 2019 (COVID-19) pandemic has had profound consequences on all sectors of the economy. This global pandemic threatens the sustainability of all sectors, including higher education.

Research purpose: This study aimed to investigate talent development strategies that promote the sustainability of higher education institutions during the COVID-19 pandemic.

Motivation for the study: Several higher education institutions are struggling to survive during the COVID-19 pandemic. Therefore, this study is motivated by the need to promote the sustainability of South African higher education institutions through talent development.

Research approach/design and method: A quantitative research approach was adopted to quantify the research phenomenon. A structured questionnaire was used to collect the data from 265 academics in three South African universities. The Statistical Package for the Social Sciences, version 27.0, was used to analyse the data. Cronbach’s alpha coefficient and factor analysis were computed to determine the reliability and validity of the questionnaire. Pearson’s correlations and regression analysis were used to determine the relationship between talent development strategies and sustainability.

Main findings: The results showed that talent development strategies (training and development as well as career development) positively influenced the sustainability of South African universities during the COVID-19 pandemic.

Practical/managerial implications: Universities can obtain sustainability through investment in their intellectual capital. This can be achieved through continuous training and development as well as career development.

Contribution/value-addition: The study expands on limited empirical research on talent development and sustainable competitive advantage.

Keywords: Career development; COVID-19; sustainability; talent development; talent management; training and development.

Introduction

Education remains one of the major linchpins of the socio-economic and political development of any nation (Ekene & Oluoch-Suleh, 2015; Shrivastava & Shrivastava, 2014). A study by Ekene and Oluoch-Suleh (2015) reveals that education contributes to a change in the individual, enhancing productivity and work efficiency. According to Shrivastava and Shrivastava (2014), recent evidence suggests that higher education institutions (HEIs) have the potential to produce both private and public benefits. From the perspectives of public good and the common good, HEIs may be seen as a sort of continuum in line with the aim of developing democratic political institutions that enable citizens to have a greater voice in the decisions that affect their well-being (Locatelli, 2018). Moreover, Ranjan (2014) advocates that given the level of competition in the labour market, many HEIs are combining both theoretical and practical knowledge to develop professionals who have the conceptual clarity, analytical skill and academic knowledge to face development challenges successfully. Valero and Van Reenen (2019) similarly point out that universities contribute to economic growth in different ways, including but not limited to: the supply of human capital, innovation, support for democratic values and demand effects. A study by Valero and Van Reenen (2019) showed that a 10% increase in the number of universities in a region is associated with a 0.4% increase in gross domestic product (GDP) per capita.
For instance, in South Africa, a study conducted by Dyason, Rossouw and Kleyhans (2019) reveal that every R1 million spent by North-West University resulted in a multiplier effect of R1.81 m in the economy. The study further showed that North-West University alone created more than 8565 jobs in 2015. Although the social, political, technological and economic contribution of universities worldwide is well documented, they are faced with diverse challenges that affect their sustainability. These challenges relate to, among others, brain drain, access and enrolment, funding, shortage of critical skills and now the coronavirus disease 2019 (COVID-19) pandemic. Among these challenges, the COVID-19 pandemic had a more significant impact on the sustainability of HEIs.

COVID-19 pandemic is a global health emergency that emerged in December 2019 in Wuhan city in Hubei Province, China. COVID-19 outbreak is caused by the SARS-CoV-2 virus. However, the pandemic has spread across the world and created more epicentres in, for example, the United States of America (USA), United Kingdom (UK), Spain, Italy, Iran, Japan, South Korea and Brazil (World Health Organization, 2020). South Africa confirmed its first COVID-19 infection on 05 March 2020. Following the promulgation of the lockdown on 27 March 2020, the government of South Africa issued regulations enforcing limitations of gatherings to 50 people among other measures such as travel restrictions, self-isolating and closing of schools (South African News Agency, 2020). Universities in South Africa undertook precautionary measures following earlier concerns of a lack of urgency raised by the South African Union of Students (Crawford et al., 2020).

The pandemic has disrupted academic programmes in universities across different regions of the world, including South Africa (McKibbin & Fernando, 2021). It has been found that the COVID-19 has changed the way universities will conduct their business going forward as academic programmes have been disrupted, resources reallocated, infrastructure development halted and staff working from home (Murphy & Wyness, 2020). Wangenge-Ouma and Kupé (2020) observe that the spread of the COVID-19 in South Africa is interwoven into an existing socioeconomic context ridden with poverty and unsustainable inequalities. In view of this, South African HEIs faced an uncertain future as dwindling funds in the sector was a challenge. Given the impact of the COVID-19 pandemic, successful progression to emergency teaching of the institutions are still lagging behind hinges, among other factors, such as the availability of intellectual human capital (South African News Agency, 2020). This implies that for universities to survive or achieve sustainable competitive advantage in this turbulent environment, it is perceived they will require highly skilled and talented employees. Since the phrase ‘competition for talent’ was coined by McKinsey in 1998 (Chambers, Foulon, Handfield-Jones, Hankin, & Michaels, 1998), managing talent has widely been considered a tool for addressing human resource (HR) challenges that arise in the contemporary business environment (Collings & Iscibel, 2018).

Talent is defined as the behaviour and actions that are superior to those taken by others, such as colleagues (Branham, 2001). Within the Japanese culture, talent is conceptualised as the highest accomplishment after undergoing several years of training (Tansley, 2011). According to the Knowledge-Based View of the Firm, knowledge or talent is considered as a unique resource required to obtain and transform other resources (Wernerfelt, 1984). Likewise, Barney (1991) postulates that for firms to gain competitive advantage, they require dynamic capabilities to transform resources. These assumptions are consistent with Younas and Bari (2020), who argue that because of the competition for talent, employers need to implement talent management (TM) practices to develop and retain their talent. The above discussion suggests that TM is considered an important tool that creates value or sustainable competitive advantage for organisations.

Talent management is considered a broad Human Resource Management (HRM) strategy that organisations adopt to retain top talent and improve performance (Sareen & Mishra, 2016). In a typically competitive environment, TM focuses on determining employees’ strengths and weaknesses, which helps an organisation in developing strategies to compete with its rivals. Talent management is defined as a process deemed to attract, develop, place, retain and integrate highly qualified workforce members (Aytaç, 2015). Based on the explanation, talent development constitutes one of the dimensions of TM that changes an organisation through both planned and unplanned training. Faćíková, Fejfarová and Urbancová (2016) believe that talent development constitutes the modern approach to HRM, which focuses on developing the potential and competencies of employees to obtain a competitive advantage. For Bolander, Werr and Asplund (2017), talent development is a technique that nurtures talent. Research suggests that different talent development practices contribute to enhancing employees’ capabilities, including training and development, organisational learning, career development, coaching and mentoring, and succession planning. However, this study concentrates only on learning, training and development as well as career development because it is perceived that these constructs have received little attention from scholarly studies. Findings indicate that the talent development strategies such as training and development and career development impacted competitive advantage the most (AlMannai, Arbab & Darwish, 2017). Despite the findings, extant literature still suggests that there is limited research in the South African context that investigates talent development strategies that create sustainable competitive advantage for universities during the COVID-19. For instance, research suggests that organisational career development has a positive impact on career satisfaction. However, no prior empirical research investigates the relationship between career development and sustainable competitive advantage in HEIs (Wickramaratne, 2020). Against this background, this study seeks to examine the talent development strategies that promote the sustainability of universities in the COVID-19 pandemic.
Empirical literature

Talent development strategies

Talent development is considered an organisational activity aimed at maintaining and enhancing employees’ careers, skills and knowledge to align them with the organisational strategic goals (De Vos, De Hauw, & Van de Heijden, 2011; Forrier, Sels, & Stynen, 2009). There are different TM practices that contribute to developing intellectual capital within an organisation. However, as indicated above, this study focuses on training and development and career development.

Training and development are indispensable HR strategies for improving employees’ skills, knowledge, experience and competencies. The purpose of training is to address the gap between the requirements of a job and the present competence of the worker concerning job security and skills of the job holder (Spr et al., 2015). Obeidat and Abdallah (2014) state that training and development enhance the efficiency of workers. Training refers to workers’ deliberate and methodical effort to achieve superior performance in different areas (Ahmad & Bakar, 2003). On the other hand, development is an approach to studying whereby managerial employees acquire and utilise their knowledge, skills and capabilities to perform their responsibilities most effectively and efficiently (Lamba & Choudhary, 2013).

Career development comprises career planning and management. The former refers to how employees identify their skills, knowledge and ability to integrate their career goals (Chetana & Mohapatra, 2017). The latter involves preparing, developing, implementing and monitoring employee career plans and strategies (Greenhaus, Callanan, & Godshalk, 2000). Research (Kong, Cheung, & Song, 2012; McQuade & Maguire, 2005) reveals that career development significantly affects developing employees’ competencies, promoting their employability. Church (2014) advocates that career development contributes to addressing the skills shortage in an organisation.

Sustainable competitive advantage

Researchers (Barney 1991; Penrose 1959; Rumelt 1984) believe that competitive advantage represents the firm-internal non-imitable resources. According to Barney (1991), competitive advantage is associated with a firm value-creating strategy, whose value cannot be imitated by rivals in the present or future. Moreover, Porter (1985) defines competitive advantage in three ways: cost, differentiation and focus with rivals who desire to set themselves apart from those perceived as stuck in the middle without competitive advantage. Porter’s (1985) definition suggests that the ability of a firm to produce a product at a lower cost can lead to a competitive advantage. The other two dimensions of the definition relate to the value perceived by the customers who either see specific attractive elements in the offering (differentiation) or feel that all their needs are being met by that competitor’s offerings (focus) (Henderson, 2011). Peteraf and Barney (2003) also point out that a firm’s competitive advantage can be measured using economic value. Peteraf and Barney (2003:314) refer to ‘economic value as the value created by an enterprise through the provision of a good or service’. Thus, the difference between the perceived benefits gained by the purchasers of the good and the economic cost to the enterprise. For Newbert (2008:752), competitive advantage is determined by the opportunities exploited by a firm, ‘degree to which the firm neutralised threats and reduced costs’.

In their study, Ibrahim and Zayed (2018) argue that competitive advantage can only be created by having the right people. Odonez De Pablos (2004) believes that a sustainable competitive advantage stems from valuable company-specific resources that competitors cannot easily imitate. According to Odonez De Pablos (2004), human capital, relational capital and structural capital are sources of sustainable competitive advantage to firms. David and David (2013) share a similar opinion that competitive advantage is obtained when a firm does something better than its rivals or owns something that other firms desire. For Rathod (2014), talent represents the most valuable resource of an organisation in achieving strategic goals and competitive advantage. Another study found that indicators used to measure competitive advantage include product uniqueness, product quality and competitive price (Kuncoro & Suriani, 2018).

Research (Ali & Gatiti, 2020; Bao, 2020) shows that universities globally, especially those in Egypt, focus on innovative and creative processes to enable them to survive during the COVID-19 pandemic. Against this background, they started devising different e-learning programmes and using various online platforms to reach their diverse learners remotely and safely both effectively and efficiently without compromising the quality of education or adversely affecting students’ learning experience (Adedoyin & Soykan, 2020; Bao, 2020). It has been suggested that achieving a sustainable competitive advantage requires investment in developing the tangible/ intangible resources within the organisation, including knowledge (Adel, Zeinhoum, & Younis, 2021). From the discussion, it can be argued that there is no standard measurement of sustainable competitive advantage. However, this study adopts the KBV of the firm theory to measure sustainable competitive advantage.

Hypotheses development

There is a common consensus among management researchers that competitive advantage stems from the internal talent and abilities that cannot be easily imitated, in contrast to the firm’s products and services. This assumption underscores the relevance of the KBV of the firm theory, which recognises human capital as a firm’s primary asset to achieve sustainable competitive advantage. A study conducted by Gandhok and Smith (2014) reveals that talent development has a positive effect in sustaining the organisational competitive advantage. These days, most employees are more interested in organisations that allow them to achieve their career and personal goals. Continuous implementation of learning,
training and development practices is vital, where firms are encouraged to design and implement new procedures to achieve their tasks, provide new technologies and have up-to-date skills and knowledge.

According to Rabbi, Ahad, Kousar and Ali (2015), learning, training and development are considered the basis of a firm’s success. Appelbaum and Gallagher (2000) claim that continuous training helps an organisation learn and gain a competitive advantage. Kireru, Karanja and Namusonge (2017), in their study, observe that development strategies contributed to building sustainability of firms. Moreover, Rabbi et al. (2015) conclude that TM strategies such as talent attraction, retention and development contribute to building a lasting competitive advantage in an organisation. In addition, research (Morales-Sánchez & Pasamar, 2019; Rawabdeh, Nawafleh, Alsari, & Melhem, 2019; Salas-Vallina, Alegre, & Fernandez, 2017) organisational citizenship behaviour mediates the relationship between training and development and competitive advantage. Considering the above, the following hypothesis was proposed:

H₁: There is a positive relationship between training and development and competitive advantage

To achieve sustainable competitive advantage, many organisations are now implementing career development programmes as a creative way to meet the challenges of attraction, retention and motivation of their employees (Erdogan, Krajmer, & Liden, 2004). Research (Barnett & Bradley, 2007; Baruch, 2006) suggests that organisations could meet the challenges of attraction, retention and motivation if they provide opportunities for their employees to develop their careers and increase their career satisfaction. The extended model of social cognitive career theory (Lent & Brown, 2006) suggests that the organisational support for career development belongs to a class of environmental support and resource that are specifically relevant to pursuing an individual's career goals. According to Osibanjo, Oyewunmi and Ojo (2014), career development is an ongoing effort by an organisation to enrich HRs in alignment with the employees and organisational needs. Tang, Wang and Xiao (2015) also confirm that career growth and training opportunities help to meet needs of enterprises and employees. Similarly, according to Lyria, Namusonge and Karanja (2017), career management increases organisational performance. Based on this, the following hypothesis was proposed:

H₂: There is a positive relationship between career development and competitive advantage

**Theoretical framework**

The theoretical framework on which this research will be predicated is the KBV of the firm. The KBV of the firm considers knowledge as the most strategically significant resource of the firm (Barney, 1991; Grant, 1996; Wernerfelt, 1984). From the KBV of the firm perspective, knowledge is considered a unique resource required to obtain and transform other resources (Wernerfelt, 1984). Likewise, Barney (1991) postulates that firms need dynamic capabilities to convert resources to build a sustainable competitive advantage. The dynamic capabilities and resources are difficult to imitate (Barney, 1991; Foss & Eriksen, 1995). The dynamic capability allows firms to build and reconfigure their capacities to compete in the ever-changing business environments (Teece, Pisano, & Shuen, 1997). According to McEvily and Chakravarthy (2002), tacit and specific knowledge development by firms through replication creates a sustainable competitive advantage.

The proponents (Boynton & Victor, 1991; Zack, 1999) of the KBV of the firm argue that the knowledge the firm possesses enhances the basis for its ability to compete. Therefore, the assumptions of the KBV of the firm theory suggest that for universities to navigate this trying moment occasioned by COVID-19, they will require knowledge workers who have explicit and tacit knowledge. This assertion underscores the importance of talent development, where employees are given opportunities to acquire skills, knowledge, experience and capabilities required to create value for their organisations.

**Conceptual model**

The conceptual model that underpins the study is presented in Figure 1.

From Figure 1, the sustainability of universities could be promoted through talent development strategies such as training and development and career development. Training and development are considered the best HR strategies for achieving organisational success in this competitive labour market and dynamic business environment. Thus, it is impossible for organisations to create a sustainable competitive advantage without continuous training and development. Higher education institutions can create and maintain a sustainable competitive advantage by providing comprehensive training and development for their current staff. This assumption relates to a similar view expressed by Singh and Mohanty (2012), who argue that development programmes consistent with employees and organisational goals and aligned to the business strategy will deliver a competitive advantage. Apart from training and development, career development also plays a vital role in promoting the sustainability of organisations. Therefore, to obtain a sustainable competitive advantage, talent development programmes should enhance all talent and capabilities of employees.

![Figure 1: Talent development strategies that promote sustainability of higher education institutions.](http://www.sajhrm.co.za)
Research design
This section of the research describes the research approach, strategy and method adopted to empirically investigate the impact of talent development on competitive advantage.

Research method
There are two main research approaches: deductive and inductive (Saunders, Lewis, & Thornhill, 2009). However, this study adopted the deductive approach, which has its foundation in scientific or quantitative research. This approach concerns the shift from general to particular, beginning from a theory through formulating hypotheses, testing the hypotheses and reviewing them. The deductive approach was adopted because it uses rigorous scientific methods to gather and analyse numeric data (Ravindran, 2019).

Research strategy
Descriptive research was carried out, which helped to describe the subject matter adequately and accurately. Siedlecki (2020) believes that descriptive study aims to adequately describe the events as they occurred in their natural settings. This type of research design does not allow the researcher to manipulate the variables but only describes them and the sample.

Research approach
The research adopted the cross-sectional study to collect and analyse the data from the respondents in the participating institutions. Quantitative research was used to measure the subject matter by collecting and analysing numerical data (Castellan, 2010). The study embraced quantitative method to contribute to the existing knowledge on TM, talent development and competitive advantage in a more in-depth way. This method of research helps to generate knowledge and create understanding about talent development strategies and sustainability. The quantitative research assists in the generalisation of the research findings (Popay, Rogers, & Williams, 1998). Additionally, in order to safeguard the credibility of the primary data gathered, validity and reliability need to be taken into account. Data collection and analysis helped improve the credibility of the results because the researcher is independent of the investigation (Denscombe, 1998).

Research location
The study was conducted in three South African universities located in KwaZulu-Natal, Gauteng and Western Cape province. A written permission letter was sent to each of these institutions for the gatekeeper’s letter. All the institutions have granted permission for the research to be conducted. An informed consent form was attached to the questionnaire, which contains vital information such as the nature and purpose of the study; voluntary participation and withdrawal from the study; confidentiality, anonymity of the data and contact details of the researcher. The respondents in this study include academics such as lecturers, senior lecturers, associate professors and full professors. The respondents were contacted via their email addresses and theses were retrieved from the institutional websites. The findings from the study were submitted to the three institutions, along with the recommendations.

Research participants and sampling methods
The target population (N = 1800) of the study was the academics in the three universities. The ‘Raosoft’ sample size calculator was used to determine the actual sample size, considering a 5% margin error and 95% confidence level. Therefore, the sample size was calculated to be 317. A stratified sampling method was used to segregate the study population into different strata (Etikan & Bala, 2017). Of the total sample (317), only 265 respondents completed the online survey. The demographic characteristics of the respondents showed that 50.6% were male, while 49.4% were female. With respect to the age of the respondents, the data showed that most of them were between 41–50 years (30.2%) and 51–60 years (29.8%). The results indicated that the larger proportion of the respondents were white people (38.9%) and African (30.6%). The educational background of the respondents revealed that 74% hold doctorates and 26% hold masters. The findings showed that 40% of the respondents were from institution B, 32.8% from institution C and 27.2% Thus, institution A. The results further indicated that lecturers (31.3%), professors (29.1%) and senior lecturers (27.9%) represented the majority of the respondents. It was found that 32.1% and 21.9% of the respondents had work in their respective institutions between 6–10 and 11–15 years. In terms of employment status, 74.3% of the respondents were full-time employees within the three institutions.

Research collection method
Data were collected through an online survey using a structured questionnaire. The self-constructed research instrument was pre-tested before the study. The questionnaire was developed from empirical and theoretical framework. The pilot study was conducted at one of the universities in South Africa between 25 February 2020 and 27 February 2020. The questionnaire was administered to five respondents who were exempted from the actual research. Cronbach’s coefficient alpha and factor analysis were used to test the reliability and validity of the questionnaire. The results of the pilot study indicated that the questionnaire was reliable and valid. For example, the Cronbach’s coefficient alpha score for talent development was 0.98, while competitive advantage was 0.96. Moreover, the results of the Measure of Sampling Adequacy were 0.915 (marvellous). Statistically, the data set complied with the requirements of sampling adequacy and sphericity for exploratory factor analysis (EFA) to be performed. The respondents in the three institutions were then contacted via email, and the link to the online survey was sent to them.
Measurement scale

The study variables (talent development – training and development as well as career development and competitive) were measured on a 5-point scale, ranging from strongly agree (5) to strongly disagree (1). The questionnaire was constructed from literature review and theoretical frameworks. It comprised 15 items. Of the total, 7 items were used to measure talent development, while 8 items measured sustainable competitive advantage. For example, the items that measured talent included knowledge transfer, training and development opportunities, creativity and innovativeness, career planning, organisational support and investment in employees. On the other hand, the items that measured competitive advantage included valuable resources (resources that are very distinctive from other resources), rare resource (resources that are very difficult for other institutions to acquire), resource that other universities cannot imitate, resource that is difficult to replace with another strategic equivalent and full utilisation of HRs to the best of their advantage. The respondents were asked to respond to each statement on the questionnaire. All the scale items were averaged to obtain an overall measure for each of the variables that form the basis of the research. As discussed above, the measuring instrument was validated and fit for this study. The Cronbach’s coefficient alpha score for talent development was 0.98, while competitive advantage was 0.96. Moreover, the results of the Measure of Sampling Adequacy were 0.915 (marvellous).

Data storage

The questionnaire was captured on Google Form (https://forms.gle/yiZWjCHjjXZwSmDj7) and distributed to the respondents. Moreover, the institutions assisted in the data-collection process by placing the questionnaires on their websites to enable respondents to complete them. The respondents were informed of the date the link would be available. The data-collection process lasted from 01 May 2020 to 30 November 2020. The average time spent by the respondents to complete the online questionnaire was 30 min. The responses from the respondents were downloaded and stored on a personal computer with password protection.

Ethical considerations

The research protocol (HSSREC/00000852/2019) was approved by the University of KwaZulu-Natal Humanities and Social Sciences Research Ethics Committee. A written informed consent form was attached to the research instruments that contained important information such as research methods, procedures for the investigation, categories of the participants and benefits derived from the study. All the respondents have consented to participate in the study. Concerning the confidentiality principle and provisions of the Protection of Personal Information Act (POPIA) of 2021, as amended, the respondents were assured that the information elicited would be used solely for its intended purposes. In accordance with the provisions of the POPIA, the respondents were assured that their personal information will not be accessed by unauthorised persons. They were also assured of the confidentiality clause in the informed consent form. Regarding anonymity, the participants’ names were replaced by pseudonyms in the research and future publication, guarding their personal information. Also, bias was eliminated by giving every element within the population the same opportunity to be included in the study. Moreover, the research involves no incentives that influence the respondents to participate in the study.

Data analysis

The Statistical Package for the Social Sciences (version 27.0) was used to analyse the data. Cronbach’s alpha coefficient was computed to determine the reliability of the measuring instrument. Cronbach’s coefficient alpha was computed to assess the reliability of the questionnaire. Reliability score ranges from 0 to 1, with perfect reliability equaling 1 and no reliability equaling 0. Statistically, the reliability score of 0.700 and above is considered acceptable. Moreover, the validity of the measuring instrument was determined through EFA. The EFA, using the Pattern Matrix extraction method, was computed to reduce the number of factors in the questionnaire. Based on the rule of thumb, items with loadings > 0.30 are regarded as highly significant when extracting the factors, making them more interpretable. Kaiser–Meyer–Olkin (KMO) and Bartlett’s tests were further employed to test the sampling adequacy. The KMO and Bartlett’s tests measure the adequacy of the sample size, ranging from 0 to 1, reaching 1 when all the items are perfectly estimated without an error: where ≥ 0.90 = marvellous; ≥ 0.80 = meritorious; ≥ 0.70 = middling; ≥ 0.60 = mediocre; ≥ 0.50 = poor; < 0.50 = unacceptable. According to the rule of thumb, the KMO score should be 0.60 or higher to be significant (Reddy & Kulshrestha, 2019).

The analysis and interpretation of the results are done using descriptive (mean, standard deviation) and inferential statistics (correlations and regression). Correlations and multiple regression were employed to predict the influence of the independents’ variables (training and development and career development) on the dependent variable (sustainable competitive advantage).

Results

Table 1 summarises the reliability scores of the study.

The reliability scores range from 0.69 (for training and development) to 0.95 (for competitive advantage), suggesting internal consistency. Statistically, the results indicate a reasonable degree of reliability because they met the threshold. Table 1 summarises the validity of the measuring instrument.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Number of items</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career development</td>
<td>3</td>
<td>0.86</td>
</tr>
<tr>
<td>Training and development</td>
<td>4</td>
<td>0.69</td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>8</td>
<td>0.95</td>
</tr>
</tbody>
</table>
From Table 2, a closer inspection of the scree plot suggests that three factors could be extracted. These are labelled as follows: training and development (Factor 1), career development (Factor 2) and competitive advantage (Factor 3). These three factors explained 69.60% of the variance of the measuring instrument. The items in the questionnaire indicated acceptable loadings of > 0.30. Table 3 presents the results of the KMO and Bartlett’s test.

The results of the measure of sample adequacy (MSA) were 0.906 (marvellous). From the statistical point of view, the requirements of sampling adequacy were met. Thus, the sample was adequate for the factor analysis. The results of the descriptive statistics are depicted in Table 4.

In Table 4, the items measuring career development (mean = 4.49), training and development (mean = 4.24) and competitive advantage (mean = 4.24) have very high mean scores, exceeding 3.00. Statistically, it can be concluded that all the variables that form part of this study are highly significant. The results implied that the respondents perceived career development and training and development as the predictors of sustainable competitive advantage in South African universities. The Pearson’s correlation indicated a moderate positive relationship between career development and competitive advantage (r = 0.409, p < 0.001). Moreover, there was a moderate positive relationship between training and development and competitive advantage (r = 0.520, p < 0.001). Table 5 summarises the results of the multiple regression.

As summarised in Table 5, the regression model suggests an R-squared value of 0.332% and an adjusted R-squared value of 0.326. This implies that the model (talent development strategies) predicts 33.2% of the variations in sustainable competitive advantage. This is significant (p < 0.001), meaning that there was a significant relationship between the independent variables (training and development and career development) and the dependent variable (sustainable competitive advantage). The results supported the stated hypotheses.

The standardised Beta and the corresponding p-values for training and development and career development (β = 0.284, p < 0.001) and (β = 0.379, p < 0.010), respectively, indicated that career development made the most considerable contribution to the model, followed by training and development. Based on the results, it can be deduced that career development and training and development jointly served as predictors of sustainable competitive advantage in South African HEIs. Hence, the hypotheses are supported.

**Discussion**

According to Kuncoro and Suriani (2018), competition in the business environment is inevitable. Kuncoro and Suriani (2018) advocate that firms need to know customers’ expectations and changes in the business environment so as to compete with rivals. It has been argued that firms can obtain a sustainable competitive advantage when potential competitors cannot duplicate or it will cost much to imitate its strategies (Kuncoro & Suriani, 2018). Levenson (2011) suggests that given the competition for talent, organisations must protect their human capital from eroding by ensuring that their employees’ skills, knowledge and experiences are constantly and regularly developed. The view expressed by

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**TABLE 2: Factor analysis.**

<table>
<thead>
<tr>
<th>Items</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD1</td>
<td>0.921</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TD2</td>
<td>0.888</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>TD3</td>
<td>0.844</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>CD3</td>
<td>-</td>
<td>0.952</td>
<td>-</td>
</tr>
<tr>
<td>CD2</td>
<td>-</td>
<td>0.612</td>
<td>-</td>
</tr>
<tr>
<td>CD1</td>
<td>-</td>
<td>0.569</td>
<td>-</td>
</tr>
<tr>
<td>CD4</td>
<td>-</td>
<td>0.486</td>
<td>-</td>
</tr>
<tr>
<td>CA2</td>
<td>-</td>
<td>-</td>
<td>0.954</td>
</tr>
<tr>
<td>CA3</td>
<td>-</td>
<td>-</td>
<td>0.939</td>
</tr>
<tr>
<td>CA4</td>
<td>-</td>
<td>-</td>
<td>0.873</td>
</tr>
<tr>
<td>CA7</td>
<td>-</td>
<td>-</td>
<td>0.855</td>
</tr>
<tr>
<td>CA1</td>
<td>-</td>
<td>-</td>
<td>0.833</td>
</tr>
<tr>
<td>CA5</td>
<td>-</td>
<td>-</td>
<td>0.810</td>
</tr>
<tr>
<td>CA6</td>
<td>-</td>
<td>-</td>
<td>0.778</td>
</tr>
<tr>
<td>CA8</td>
<td>-</td>
<td>-</td>
<td>0.692</td>
</tr>
<tr>
<td>Eigenvalue</td>
<td>7.380</td>
<td>1.880</td>
<td>1.180</td>
</tr>
<tr>
<td>% of variance</td>
<td>49.170</td>
<td>12.560</td>
<td>7.880</td>
</tr>
</tbody>
</table>


† Rotation converged in five iterations.

**TABLE 3: Kaiser–Meyer–Olkin and Bartlett’s tests.**

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
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<tbody>
<tr>
<td>Kaiser–Meyer–Olkin measure of sampling adequacy</td>
<td>0.918</td>
</tr>
<tr>
<td>Bartlett’s test of sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. chi-square</td>
<td>2651.429</td>
</tr>
<tr>
<td>Df</td>
<td>105.000</td>
</tr>
<tr>
<td>Sig.</td>
<td>0.000</td>
</tr>
</tbody>
</table>

**TABLE 4: Descriptive statistics and the correlation matrix.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career development</td>
<td>4.49</td>
<td>0.45744</td>
</tr>
<tr>
<td>Training and development</td>
<td>4.24</td>
<td>0.70717</td>
</tr>
<tr>
<td>Competitive advantage</td>
<td>4.24</td>
<td>0.79885</td>
</tr>
</tbody>
</table>

**TABLE 5: Multiple regression.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>R</th>
<th>R-squared value</th>
<th>adjusted R-squared value</th>
<th>F</th>
<th>Beta (β)</th>
<th>T</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training and development</td>
<td>0.576</td>
<td>0.332</td>
<td>0.326</td>
<td>-</td>
<td>-</td>
<td>0.000</td>
<td>a</td>
</tr>
<tr>
<td>Career development</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.284</td>
<td>4.880</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.379</td>
<td>6.516</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

a, alpha; b, standardised Beta.
Levenson (2011) underscores the importance of talent development, which aims to maintain and enhance employees’ career, skills and knowledge to align them with the organisational strategic goals (De Vos et al., 2011; Forrier et al., 2009). It can therefore be argued that the sustainability of universities could be promoted through talent development strategies such as training and development and career development. Singh and Mohanty (2012) argue that development programmes consistent with employees and organisational goals and aligned to the business strategy will deliver a competitive advantage. Moreover, Rabbi et al. (2015) conclude that TM strategies such as talent attraction, retention and development contribute to building a lasting competitive advantage in an organisation. Kireru et al. (2017), in their study, observe that talent development strategies contributed to building sustainability of firms.

Interestingly, previous research focused mainly only on TM and organisational performance. This study could be considered an important contribution to talent development and sustainable competitive advantage literature because of the scarcity of empirical research. The study was conducted to determine the impact of talent development on sustainable competitive advantage in South African universities during the COVID-19 pandemic. The study empirically tested the developed conceptual model and hypotheses by collecting data from academics in three South African universities.

The findings showed a significant positive relationship between training and development and competitive advantage during the COVID-19 pandemic. The findings reaffirmed the results of previous research (Gandhok & Smith, 2014; Rabbi et al., 2015). According to Singh and Mohanty (2012), development programmes consistent with employees and organisational goals and needs and aligned to the business strategy will deliver a competitive advantage. From the KBV standpoint, McEvily and Chakravarthy (2002) argue that firms’ tacit, specific and dynamic knowledge through replication creates a sustainable competitive advantage. Manenzhe and Ngirande (2021) found a positive relationship between training and development and organisational citizenship behaviour. Research shows that organisations with employees with high organisational citizenship behaviour have a competitive advantage (Morales-Sánchez & Pasamar, 2019; Rawabdeh et al., 2019; Salas-Vallina et al., 2017).

Additionally, the findings indicated a significant positive relationship between career development and sustainability of South African universities during the COVID-19 pandemic. The results demonstrate that South African universities considered career development a vital tool for retaining and encouraging employees to enrich their skills and commitment to the organisation. Moreover, the findings suggest that South African universities encouraged their staff to develop their knowledge and skills to remain competitive. These findings were consistent with the research undertaken by previous studies. For instance, in their study, Osibanjo et al. (2014) found that career development is an ongoing effort by an organisation to enrich HRs in alignment with the employees and organisation needs. Tang et al. (2015) argue that career growth and training opportunities help to meet needs of enterprises and employees. Similarly, Lyria et al. (2017) assert career management increases organisational performance.

**Practical implications**

This study makes a significant contribution to the theory and practices for sustainable competitive advantage. The study empirically tested the model concerning the talent development strategies (training and development and career development) that promote the sustainability of universities. The study demonstrates that sustainable competitive advantage during the COVID-19 pandemic could be created through training and development and career development. This indicates that the study is a step forward in better understanding how the competitive advantage in universities could be created during the COVID-19 pandemic. This study will serve as the foundation for future research to test the model in different organisational contexts.

The research findings have some managerial implications, which can help universities effectively achieve their desired goals. It is evident from the study that South African universities recognised academics as valuable resources that are difficult to replace with another strategic equivalent.

In addition, the findings could contribute to human capital development in universities globally. Thus, the results may be helpful to universities to intensify effort towards training and development and career development of their staff, as they have demonstrated to be significant determinants of promoting sustainability during the COVID-19 pandemic.

**Limitation and directions for future research**

The study was limited to only South African universities, making the generalisation of the findings to be limited because of the differences in an organisational context. Given this limitation, future research should focus on different industries. Moreover, although talent development, an aspect of TM, is a recent research concept that continues to attract research interest from practitioners and academics, there is still much room for further research in this area.

**Conclusion**

Given the war for talent, most firms are increasingly becoming aware that the investment in their intellectual capital will help create and maintain a sustainable competitive advantage in the long term. The findings
widely acknowledged that training and development and career development created a sustainable competitive advantage for South African universities during the COVID-19 pandemic.

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Competing interests
The authors have declared that no competing interest exists.

Authors’ contributions
The contributions of the corresponding author include conceptualisation, methodology, formal analysis, investigation, writing-original draft, visualisation, project administration, software, validation and data curation, resources. The second author’s contributions include supervision and review and editing.

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Data availability
Data sharing is not applicable to this article as no new data were created or analysed in this study.

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