Testing a graduateness and employability skills model through the use of social media: findings from South Africa

Obrain Tinashe Murire

Walter Sisulu University – Buffalo City Campus, East London, South Africa

Liezel Cilliers

Department of Information Systems, University of Fort Hare – East London Campus, East London, South Africa, and

Willie Chinyamurindi

Department of Business Management, University of Fort Hare – East London Campus, East London, South Africa

Abstract

Purpose – This study examined the influence of social media use on graduateness and the employability of exit students in South Africa.

Design/methodology/approach – The study used quantitative and descriptive research designs to test the proposed hypotheses. An online survey was used to collect the data from a study sample. A sample of 411 respondents was received, with structural equation modelling (SEM) being used to assess the model fit.

Findings – The study found that the direct effect of social media use on graduateness skills is significant. Secondly, the direct effect of graduateness skills on perceived employability is also significant. The results also showed existence of support for the mediation of graduateness skills on the relationship between social media use and perceived employability.

Research limitations/implications – The study provides empirical evidence to the proposed model and infers the potential role of social media in addressing issues related to graduateness and the employability of exit students.

Practical implications – In addressing the challenge of unemployment, the use of social media can potentially aid in matters of skills acquisition.

Originality/value – The results demonstrate how technology through the use of social media potentially fits within enhancing graduateness and employability skills.

Keywords Social media, Access to higher education, Youth unemployment

Paper type Research paper

Introduction

There is a noted increase in youth unemployment globally (OECD, 2024). South Africa is not spared from the youth unemployment challenge. As a result, calls exist for research that addresses this challenge (Harry and Chinyamurindi, 2022). The unemployment rate in South Africa is noted to be on an increase (Statistics South Africa, 2023). This growing unemployment is noted to affect mostly young people. Most affected by this are graduates and especially those youth below the age of 24. The reasons for the high rate of graduate unemployment in South Africa are associated with a range of aspects that may include the youth's lack of graduateness

skills and employability attributes (Coetzee *et al.*, 2012; Benson *et al.*, 2014; Harry *et al.*, 2018). There is also a misalignment between the skills of the students graduating from university and the needs of the labour market (Walker and Fongwa, 2017; Williamson *et al.*, 2020).

The transition from a graduate to an employee is stressful and is exacerbated by a lack of graduateness skills as part of the transition (Walker *et al.*, 2015). Jackson (2013) described graduateness skills as the degree to which an exit student has the characteristics and attributes that prepare them for triumph in the workplace. Similarly, Coetzee (2012) described graduates' skills as the attributes that make final-year students capable of attaining and continuing to fulfil work. Thus, graduates must equip themselves with all employers' required skills (Walker and Fongwa, 2017).

Social media has been identified as a solution to the presented challenges. The literature reveals that 97% of young adults enrolled at tertiary institutions in South Africa are using mobile technology (Shava *et al.*, 2016; Cilliers *et al.*, 2017). Albal (2018) asserted that with the acceptance of mobile technology amongst youth in South Africa, there is a perspective of social media use to enhance graduate employability in the country. Technology is a practical tool to increase graduateness skills and employability (Albal, 2018; Benson *et al.*, 2014; Healy *et al.*, 2023). Technology is seen as a transformative tool influencing labour markets characterized by inequality (Tanser, 2017; Blayone *et al.*, 2020).

The study adopted the CareerEDGE model as its theoretical framework (Dacre Pool and Sewell, 2007). Within the CareerEDGE model five distinct components are proposed as influencing how employability unfolds. The focus being on (1) career development learning, (2) experience (work and life), (3) degree subject knowledge (an understanding of skills), (4) generic skills development and (5) emotional intelligence (Dacre Pool and Qualter, 2013). In essence, the interaction of these five components informs how student and potentially youth employability unfolds (Dacre Pool, 2020). Informed by previous research in South Africa (Coetzee and Esterhuizen, 2010; Harry *et al.*, 2018), three salient gaps can be proposed considering also the underlying assumptions from the CareerEDGE model.

First, a need exists to explore how the cumulative experience of youths from a higher education experience can inform aspects related to employability (Rothwell *et al.*, 2009; He *et al.*, 2016; Coetzee *et al.*, 2014). Second, a need also exists to understand how context features in influencing student and youth employability (Chinyamurindi, 2023a; Healy *et al.*, 2023). Finally, there is also need to explore how aspects related to tools such as technology can also influence employability (Murire *et al.*, 2023; Mahlasela and Chinyamurindi, 2020). This study potentially exists to fill these identified gaps especially considering exit students based at a historically disadvantaged institution in South Africa. The historically disadvantaged institution context becomes important especially considering efforts of redress in South Africa and the importance of such institutions (Chinyamurindi, 2023b).

The rest of the paper discusses the study's theoretical foundation, followed by the methodology employed, analysis of the findings and discussion of these findings. Lastly, the paper concludes with a limitation and future research section. The following section discusses the theoretical framework and hypotheses of the study.

Study context and hypotheses
South Africa is witnessing many graduates coming from the university system. The pattern also shows that more students are graduating from universities especially those classified as historically disadvantaged institutions (Harry and Chinyamurindi, 2022). Historically disadvantaged institutions in their nature, are not financially well off due to historical injustices (Bengu, 2021). Further, historically disadvantaged institutions do not have adequate reserves to ensure that they sustain themselves fully. Additionally, historically disadvantaged institutions do not have sufficient resources to produce quality graduates; instead, they depend enormously on government funding for survival (Bengu, 2021).

This influences the quality of graduates they produce, affecting their employability. This study examined the influence of social media use on graduateness skills and employability of exit students at historically disadvantaged institutions.

Social media definitions and perspectives
Technology is a practical tool to increase the graduateness skills and employability of youth in South Africa (Benson *et al.*, 2014; Blayone *et al.*, 2020; Habets *et al.*, 2021). Social media has become essential to many young adults' lives (Melao and Reis, 2020; Sangeeta and Ahlawat, 2018; Benson *et al.*, 2014). He *et al.* (2016, p. 2) defined social media as "websites and applications which allow end-users (graduates, managers and people) to make a profile, facilitates collaboration and sharing of information in the virtual social world". In developing countries like South Africa, social media use has been noted to be popular especially amongst young people (Cilliers *et al.*, 2019; Murire *et al.*, 2023).

Social media allows graduates to participate in an online discussion (Healy *et al.*, 2023). As a result of participating on social media can assist to improve graduateness skills. Therefore, social media provides features that promote graduate-employer interaction. Such interaction is argued as crucial for skills development within society (Harry and Chinyamurindi, 2019).

However, students face hurdles using social media to enhance their graduateness skills and employability (Melao and Reis, 2020; Sutherland and Ho, 2017). These barriers include graduate attitudes toward social media, online security issues, data cost and social media experience to employ social media as an employability tool in this digital world (Busines, Murire *et al.*, 2023; Hussain *et al.*, 2017). As a result, it can be problematic for students to use social media to enhance their graduateness skills and employability (Healy *et al.*, 2023; Hu and Zhang, 2016). Based on this discussion, the following relationships were hypothesized:

H1. Social media significantly influences employability amongst exit students at historically disadvantaged institutions.

H2. Social media significantly influences graduateness skills amongst exit students at historically disadvantaged institutions.

Graduateness skills, employability definitions and perspectives
The concept of employability can be defined in many ways (Lowden *et al.*, 2011). On end employability is argued as a product of vocational and professional education (Harry and Chinyamurindi, 2022). The focus here is on readiness for the job market through a process of skills acquisition (Harwood, 2010). Others take employability to consist of personality traits and learned behaviours (Murire *et al.*, 2023). In essence, employability skills and their development become important during a transition period from higher education to the labour market (Cheng *et al.*, 2022).

Conversely, graduateness refers to involve individual growth and transformation (Pitan and Muller, 2020). The skills and traits that contribute to the graduateness of students who complete their studies at higher education institutions are a significant outcome of their tertiary-level scholarship experiences (Blayone *et al.*, 2020). These graduateness skills are distinct from their degree-specific knowledge and technical skills and refer to the transferable skills and personal traits that demonstrate graduates' employability and readiness for work (Yamada and Otchia, 2020). Bridging the issues of the skills deficit potentially could enhance not just employability skills but also enhance graduateness (Mseleku, 2022). Based on the above, the following hypotheses are proposed:

H3. Graduateness skills significantly influence employability amongst exit students at a historically disadvantaged institutions.

H4. Graduateness skills significantly mediate the relationship between social media use and employability amongst exit students at historically disadvantaged institutions.

All hypotheses outlined above are visually represented in Figure 1.

Methodology

Respondents

The attributes of the sample used in this study make it particularly relevant for graduates interested in gaining employment in the ever-changing labour environment. Therefore, this study provides insights into the challenges young people face when transitioning from being a graduate to an employee. Ethical clearance to the research was applied for and granted by the University of Fort Hare Research Ethics Committee (Ref: CIL021SMUR01).

An online survey was sent to all exit students at the historically disadvantaged institutions in November 2019, and 411 students responded. No incentives were provided to respondents. The total number of students from the two institutions that could form a part of the sample was 720 students. A response rate of 57% was attained for this study.

From the respondents, 58.9% were females. Regarding the level of study 68.6% were undergraduates from the historically disadvantaged institutions. Regarding ethnicity, most respondents (94.4%, $n = 388$) were Black African students, followed by Coloured students who constituted 4.9% ($n = 20$) of the sample. White students constituted only 0.5% ($n = 2$) of the sample. Table 1 presents descriptive statistics of the sample.

Instrument

The following variable was assessed in the instrument. The social media use for employment was measured using a 4-item scale developed internationally (He *et al.*, 2016). Respondents rated their agreement with the items on a scale of 1 (never) to 4 (very often). The scale demonstrated good reliability with a Cronbach Alpha Coefficient (CAC) of 0.839 and above the recommended threshold of 0.7 (Nunnally, 1978).

Graduateness skills were measured using a 47-item scale developed in South Africa (Coetzee, 2014) that included eight dimensions: goal-directed behaviour (8), problem-solving and decision-making skills (8), continuous learning orientation (7), interactive skills (6), presenting and applying skills (5), enterprising skills (4), analytical thinking (4), ethical and responsible behaviour (5). Participants rated their agreement with items on a scale of 1 (strongly disagree) to 6 (strongly agree). The scale demonstrated high reliability with a CAC of 0.963 and above the recommended threshold of 0.7 (Nunnally, 1978).

Perceived employability was measured using a scale developed from previous research (Rothwell *et al.*, 2009) consisting of 16 items on a 6-point Likert scale ranging from 1 (strongly disagree) to 6 (strongly agree). The scale demonstrated good reliability with a CAC of 0.827 and above the recommended threshold of 0.7 (Nunnally, 1978).

Reliability, descriptive and correlation analysis was conducted using SPSS version 25. To estimate the structural model, both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were conducted to ensure the fit of the measurement model. The model
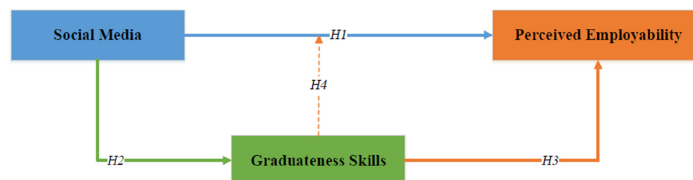

Figure 1.
An illustration of the hypothesised relationships
(H, hypotheses)

Source(s): Figure by authors

Variable	Levels	df	f	Valid %
Institution	Walter Sisulu University	1	202	49.1
	University of Fort Hare		209	50.9
Gender	Male	2	169	41.1
	Female		242	58.9
Ethnicity	Black	3	388	94.4
	Coloured		20	4.9
	White		2	0.5
	Other		1	0.2
Age	Below 21 years	4	50	12.2
	21–30 years		309	75.2
	31–40 years		35	8.5
	41–50 years		8	1.9
	Above 50 years		9	2.2
Faculty	Management and Commerce	5	296	72.0
	Education		26	6.3
	Social Sciences and Humanities		30	7.3
	Science and Agriculture Engineering		19	4.6
	Health Sciences		16	3.9
	Law		24	5.8
Level of study	Undergraduate	1	282	68.6
	Postgraduate		129	31.4

Note(s): $n = 411$
Source(s): Table by authors

Table 1.
Descriptive statistics for biographical variables

fit was evaluated using the chi-squared test, the comparative fit index (CFI), the goodness of fit (GFI), root mean square error of approximation (RMSEA), the parsimony goodness-of-fit index (PGFI) to assess the parsimonious fit. MacCallum *et al.* (1996) stated that an acceptable fit has an RMSEA below 0.08. GFI and CFI values should be > 0.9 (Hu and Bentler, 1999), and PGFI recommends parsimony fit indices within the 0.50 region (Mulaik *et al.*, 1989). CFAs and SEM were conducted using Analysis of Moment Structures (AMOS) version 24.

Results

Before testing the study hypotheses, Confirmatory Factor Analysis (CFAs) were conducted for the independent variable (social media), dependent variable (perceived employability) and mediating variable (graduateness skills) to ensure that the measurement model fitted the data. Table 2 presents the comparison of factor models.

The CFA of social media showed a good fit with a chi-square of 720.142, degrees of freedom of 6 and a *p*-value of 0.001, indicating levels of significance. The RMSEA of 0.058 reported for this study was below the recommended threshold of 0.08, indicating a good fit; and the CFI was 0.951, above the recommended CFI value of 0.9. Further, the PGFI of 0.317 reported for this study was within the recommended parsimony fit indices of 0.50, which aligns with established joint fit criteria (Hu and Bentler, 1999; Kline, 2005).

The CFA of perceived employability also showed a good fit, with a chi-square of 1841.098, degrees of freedom of 120 and a *p*-value of 0.001, indicating the model's significance. The RMSEA of 0.072 reported for this study was below the recommended threshold of 0.08; the GFI of 0.923 was above the recommended GFI value of 0.90; the CFI was 0.987, above the

Model	X²	df	P-value	RMSEA	GFI	CFI	PGFI
Hypothesised							
The fitness indexes assessment for the independent variable structural model (social media)	720.142	6	***	0.058		0.951	0.317
The fitness indexes assessment for the dependent variable structural model (perceived employability)	1841.098	120	***	0.072	0.923	0.987	0.638
The fitness indexes assessment for the mediating variable structural model (Graduateness Skills)	11364.987	1,081	***	0.059	0.949	0.967	0.709

Note(s): $N = 411$; CFI, comparative and fit index; GFI, goodness fit index; RMSEA, root mean squire error of approximation; PGFI, parsimony goodness-of-fit index
Source(s): Table by authors

Table 2.
Comparisons of factor models

recommended CFI value of 0.9 and the PGFI of 0.638 reported for the study was above the recommended parsimony fit indices of 0.50, which aligns with established joint fit criteria.

Testing study hypotheses

The CFA of graduateness skills showed a good fit with a chi-square of 11364.987, a degree of freedom of 1,081 and a p-value of 0.0001, indicating the model's significance. The RMSEA of 0.059 reported for this study was below the recommended threshold 0.08; the GFI of 0.949 was above the recommended GFI value of 0.90; the CFI was 0.967 and the PGFI of 0.709 exceeded the recommended parsimony fit indices of 0.50.

The structural model examining the relationship between social media use and perceived employability showed a good fit, with standardised fit indices indicating RMSEA = 0.062 and CFI = 0.950. The unstandardised and standardised regression coefficients were estimated, and the regression weight for social media use in predicting perceived employability ($\beta = 0.078$; $p = 0.108$) was found to be insignificant at the 0.001 level (two-tailed). The intercept for the prediction model of perceived employability by social media use was highly significant ($\beta = 4.084$; $p < 0.0001$). These results suggest that there is not a significant direct effect of social media use on perceived employability. However, after considering the indirect effect of social media use on perceived employability, the standardised indirect effect was found to be 0.144 ($p = 0.002$), indicating that a one-standard-deviation increase in social media use is associated with a 0.144 standard deviation increase in perceived employability, in addition to any direct effect. This finding supports hypothesis H4, which posited a significant indirect effect of social media use on perceived employability.

The structural model examining the relationship between graduateness skills and perceived employability also showed a good fit, with fit indices indicating RMSEA = 0.065 and CFI = 0.985. The regression weight for graduateness skills in the prediction of perceived employability ($\beta = 0.456$; $p < 0.0001$) was highly significant at the 0.001 level (two-tailed), with a standardised regression weight of 0.496. The intercept for the prediction model of perceived employability by graduateness skills was highly significant ($\beta = 2.322$; $p < 0.0001$). These results provide evidence that graduateness skills have a significant direct and positive effect on perceived employability.

The structural model examining the relationship between social media use and graduateness skills showed a good fit, with fit indices indicating RMSEA = 0.058 and CFI = 0.951. The regression weight for social media in the prediction of graduateness skills is significantly different from zero at the 0.001 level (two-tailed) with highly significant

parameter estimates ($\beta = 0.301$, $p < 0.0001$). The standardised regression weights for the prediction model of graduateness skills by social media use has an estimate of 0.280. The intercept for the prediction model of social media by graduateness skills is highly significant ($\beta = 3.456$; $p < 0.0001$). The unstandardised and standardised direct effects are statistically significant. Therefore, a one-unit increase in social media use results in a 0.301 unit increase in graduateness. In conclusion, social media significantly directly and positively affect graduateness skills. Table 3 illustrates the results of the SEM analyses, including fit indices based on standardised maximum likelihood.

Given its good fit across all tests, a model was retained (see Figure 2). In this model, the endogenous variables are perceived employability and graduateness skills, while the exogenous variable is social media use. Unobserved exogenous variables are denoted by e1 and e2. The standardised parameter estimates are shown in the diagram. The rectangles represent the observed variables, and the circles represent the error terms as shown in Figure 2.

Estimation
The study used the maximum likelihood estimation method to estimate the path coefficients of the structural model, which indicated the strength of the correlation between variables. The results showed that graduateness skill had the highest path coefficient value (0.47, $\beta = 0.473$, $p < 0.0001$) in explaining the relationship with employability, supporting H3. The correlation between social media use and graduateness skills also showed a significant

Model	RMSEA	CFI	*P*-value	R E	SRE	Intercepts
Hypothesised						
Social media use and perceived employability structural model	0.062	0.950		0.078	0.079	4,084
Graduateness skill and perceived employability structural model	0.065	0.985	***	0.456	0.496	2,322
Social media and graduateness skill structural model	0.058	0.951	***	0.301	0.280	3.456

Note(s): ***$p < 0,001$ $N = 411$; SEM, structural equation modelling CFI, comparative and fit index; RMSEA, root mean squire error of approximation; RE, Regression Estimate; RSE, Standard Regression Estimate. Standardised maximum likelihood estimates
Source(s): Table by authors

Table 3.
The results of the SEM analyses; fit indices
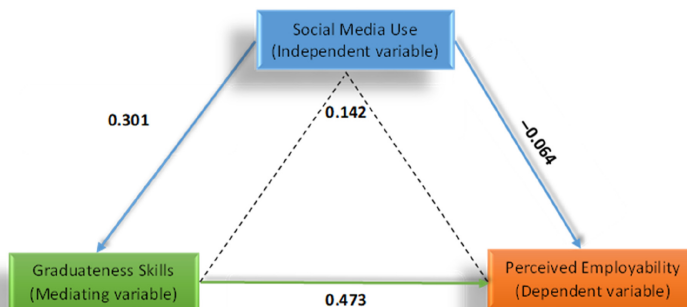
Source(s): Figure by authors

Figure 2.
GESM model

positive relationship (path coefficient value of 0.30, $\beta = 0.301$, $p < 0.0001$), supporting H3. Additionally, graduateness skills were found to mediate the relationship between social media use and perceived employability, with a path coefficient value of 0.14 ($\beta = 0.142$, $p < 0.0001$), supporting H4. However, the path coefficient value between social media use and employability was weak and negative (-0.064, $\beta = -0.064$, $p < 0.144$), not supporting H1. A summary of the accepted and rejected hypotheses is presented in Table 4.

Discussion

The study aim was to examine the influence of social media use on graduateness skills and employability of exit students at historically disadvantaged institutions in the Eastern Cape Province of South Africa. Consistent with previous studies (Mseleku, 2022; Pitan and Muller, 2020), our results showed that graduateness skills significantly influence the perceived employability of exit students. They highlight the importance of emphasizing graduateness skills in higher education institutions (Shyju and Chandra, 2018; Yamada and Otchia, 2020), as most employers require graduates to be competent for work (Pitan and Muller, 2020; Williamson *et al.*, 2020; Yamada and Otchia, 2020). This study identified the strong influence of graduateness skills because it is evident that most employers need graduates to be competent for work. Additionally, we found that social media positively influences graduateness skills, which is consistent with findings from other studies (Healy *et al.*, 2023; Medrano *et al.*, 2023). Therefore, the study concludes that the use of social media plays a crucial role in enhancing the graduate skills of exit students at historically disadvantaged institutions in South Africa (Habets *et al.*, 2021).

However, contrary to our expectations, the current study's results indicate no significant relationship between social media and perceived employability among exit students. We believe this may be because the scales used in our study, which focused only on the information-searching capability of social media, did not fully capture the information-sharing and interactive nature of social networking platforms concerning employability (Murire *et al.*, 2023; Sanchez-Rivas *et al.*, 2023) as highlighted by studies confirming that young graduates are using social media for employability (He *et al.*, 2016; Piveca and Maček, 2019; Healy *et al.*, 2023). Although the path coefficient score between social media and perceived employability was the lowest in our model, graduates use social media to look for employment information. It is considered a practical tool to enhance the employability of youth in South Africa (Benson *et al.*, 2014; Healy *et al.*, 2023). Social media was found to be an enabler for graduates to share information about job openings and internships. Thus, social media provides features that promote graduate-employer interaction (Habets *et al.*, 2021; Melao and Reis, 2020). Furthermore, social media can facilitate graduate-employer interaction

Hypotheses	Path coefficient	p	Decision
H1: Social media significantly influence employability amongst exit students at historically disadvantaged institutions	-0.064	0.144	Reject
H2: Social media significantly influence graduateness skills amongst exit students at historically disadvantaged institutions	0.301	***	Accept
H3: Graduateness skills significantly influence employability amongst exit students at historically disadvantaged institutions	0.473	***	Accept
H4: Graduateness skills significantly mediate the relationship between social media use and employability amongst exit students at historically disadvantaged institutions	0.142	***	Accept
Source(s): Table by authors			

Table 4.
Summary of accepted and rejected hypotheses

by providing features that enable graduates to share information about job openings and internships (Benson *et al.*, 2014; Healy *et al.*, 2023).

Higher Education, Skills and Work-Based Learning

41

Implications

Some implications can be drawn from this study. The findings proffer insights into addressing the challenges young people face regarding their employability (Healy *et al.*, 2023). This study contributes to the debate on the influence of social media on graduates' skills and employability in modern societies (Healy *et al.*, 2023). Specifically, the study has revealed the potential of social media to enhance graduateness skills, wherein exit students are more responsible for their skills and employability (Pitan and Muller, 2020). In this context, higher education institutions play a crucial role in providing competent graduates that meet the demands of modern economies. Furthermore, the study adds to the existing knowledge on using social media for employability enhancement.

From a political perspective, policymakers in the education sector should find ways of integrating social media in university curriculums and teaching to educate graduates about the best practices for using social media to acquire graduateness skills successfully. Institutions of higher learning should focus on offering programmes containing skills demanded by the labour market to increase the employability of final-year students. To increase final-year students' employability, higher learning institutions should focus on offering programmes that teach skills in demand in the labour market. Universities should collaborate with organisations to meet the new requirements of the labour market.

The finding that social media impacts graduates' skills and employability has significant implications for HR practitioners. From a human resource perspective, policies should be in place to guide HR practitioners in using these emerging technologies. Finally, this study sheds light on the role of social media in the employability of exit students (although no significant results were found in this regard). In conclusion, graduates must utilise social media for their professional development.

Contribution

The study contributes through a model of social media use within the context of quests for improving graduateness and employability as shown in Figure 2. The model informs the design of programmes and interventions that focus on employability. Primarily, models of employability ought to inform the preparation of academic programmes and planned interventions intending to focus on the area. This model provides clarity on the skills that exit students should possess to increase their chances of employability. Additionally, graduates, HR practitioners, policymakers and academics should easily understand the model.

The Graduateness Employability Social Media (GESM) model as shown in Figure 2 enables academics, career advisors, policymakers and all individuals involved in promoting employability within higher education to address the issue without adding complexity. It is a valuable tool for youth as it highlights the significance of graduateness skills and social media concerning employability. It can also demonstrate to employers how graduateness skills and social media can contribute to graduate employability. Moreover, the GESM model could be adapted for groups other than exit students from historically disadvantaged institutions and new graduates. Moreover, GESM model can also be adapted for others, for instance, mid-life career changers.

The GESM model is proposed as a guide for the higher education sector in South Africa to enhance graduateness skills and employability among youth. To demonstrate a significant contribution to the body of knowledge in a field of inquiry, the evidence must be substantiated. Holweg and van Donk (2009) noted that conceptual models serve different

purposes depending on the context of the study. In this study, the GESM model was aligned with Rugg and Petre's definition of implementing a theoretical principle to show how it can be applied in practice. Secondly, making the concept tangible and demonstrating through empirical inquiry is relatable to stakeholders in its context and can lead to process improvement in its chosen field. The contribution of the GESM model is theory-driven, and the theories have been supported and validated by intense empirical findings from exit students at historically disadvantaged institutions and HR practitioners. The following section provides the limitations of the study.

Study limitations
This study has limitations and future research should improve on this. Concerns exist around the social media aspect of the study. The social media scale used in this study was not comprehensive. A more comprehensive scale could have been used. Social media is also incorporating the use of blogs and professional networking sites. Future research could also include these. The other limitation concerns the sample, as the study is restricted to two institutions. Future research should expand beyond the Eastern Cape Province of South Africa to include other universities in the country and beyond. Despite these limitations, the findings of this study have important implications for higher education institutions, policymakers and HR practitioners who should seek to incorporate social media in their curriculum and policies to enhance the employability of exit students.

Conclusion
The widespread use of mobile technology among youth has highlighted the potential of social media to enhance graduate employability in South Africa. The study aimed to develop a model to enhance graduateness skills and employability through social media amongst exit students at historically disadvantaged institutions in the Eastern Cape Province of South Africa. This study aimed to develop a model that leverages social media to improve graduateness skills and employability among exit students from historically disadvantaged institutions in the Eastern Cape Province of South Africa. The study's findings showed that social media use has a significant direct effect on graduateness skills, and graduateness skills have a significant direct effect on perceived employability. Moreover, the results indicated that the direct effect of social media use on perceived employability is not significant unless the mediating variable (i.e. graduateness skills) is included. The study's main contribution is the GESM model, a valuable tool that transfers information about the significance of graduateness skills and social media to enhance graduate employability. It can demonstrate to employers how graduateness and social media roles can contribute to graduate employability. The model can also showcase to employers how graduateness and social media can work together to boost graduate employability.

References

Albal, K. (2018), "Social media should be viewed with an eye for employability: social media usage by students affects their chances of finding a job after graduation", available at: http://www.statepress.com/article/2018/01/spopinion-social-media-should-be-viewed-with-an-eye-for-employability

Bengu, S. (2021), "Historically disadvantaged institutions: presentation for norwegian partnership for global academic cooperation (NORPART)", available at: https://diku.no/media/files/diku.no/programmer/norpart/dhet-presentation-to-diku-norpart.pdf (accessed 23 September 2021).

Benson, V., Morgan, S. and Filippaios, F. (2014), "Social career management: social media and employability skills gap", *Computer Human Behaviour*, Vol. 30, pp. 519-525, doi: 10.1016/j.chb.2013.06.015.

Blayone, T., Mykhailenko, O., Usca, S., Latvia, R., Romanets, I. and Oleksiiv, M. (2020), "Exploring technology attitudes and personal–cultural orientations as student readiness factors for digitalised work", *Higher Education, Skills and Work-Based Learning*, Vol. 11 No. 3, pp. 649-672, doi: 10.1108/HESWBL-03-2020-0041.

Cheng, M., Adekola, O., Albia, J. and Cai, S. (2022), "Employability in higher education: a review of key stakeholders' perspectives", *Higher Education Evaluation and Development*, Vol. 16 No. 1, pp. 16-31, doi: 10.1108/HEED-03-2021-0025.

Chinyamurindi, W.T. (2023a), "Perceptions of what decolonisation means: an exploratory study amongst a sample of rural campus students", *South African Journal of Higher Education*, Vol. 37 No. 3, pp. 59-72, doi: 10.20853/37-3-4852 or available at: https://www.journals.ac.za/sajhe/article/view/4852

Chinyamurindi, W.T. (2023b), "'We need our own super heroes and their stories' – towards decolonised teaching within the management sciences", *South African Journal of Education*, Vol. 43 No. 3, pp. 1-8, doi: 10.15700/saje.v43n3a1637.

Cilliers, L., Viljoen, K. and Chinyamurindi, W. (2017), "A study on students' acceptance of mobile phone use to seek health information in South Africa", *Health Information Management Journal*, Vol. 47 No. 2, pp. 1-11, doi: 10.1177/1833358317706185.

Cilliers, L., Chinyamurindi, W.T. and Van Rhyne, Z. (2019), "Social network addiction and advertising on social networks: a case study of rural students in South Africa", *South African Journal of Information Management*, Vol. 16 No. 1, pp. 52-72, doi: 10.4102/sajim.v21i1.1081.

Coetzee, M. (2012), "A framework for developing student graduateness and employability in the economic and management sciences at the University of South Africa", in Coetzee, M., Botha, J., Eccles, N., Holtzhausen, N. and Nienaber, H. (Eds), *Developing Student Graduateness and Employability: Issues, Provocations, Theory and Practical Guidelines*, Knowres, Randburg, pp. 119-152.

Coetzee, M. (2014), "Measuring student graduateness: reliability and construct validity of the Graduate Skills and Attributes Scale", *Higher Education Research and Development*, Vol. 33 No. 5, pp. 1-17, doi: 10.1080/07294360.2014.890572.

Coetzee, M. and Esterhuizen, K. (2010), "Psychological career resources and coping resources of the young unemployed African graduate: an exploratory study", *South African Journal of Industrial Psychology*, Vol. 36 No. 1, pp. 1-19, doi: 10.4102/sajip.v36i1.868.

Coetzee, M., Botha, J., Eccles, N., Nienaber, H. and Holtzhausen, N. (2012), *Developing Student Graduateness and Employability: Issues, Provocations, Theory and Practical Guidelines*, Knowres Publishing, Pretoria.

Coetzee, M., Schreuder, D. and Tladinyane, R. (2014), "Employees' work engagement and job commitment: the moderating role of career anchors", *SA Journal of Human Resource Management*, Vol. 12, doi: 10.4102/sajhrm.v12i1.572.

Dacre Pool, L. (2020), "Revisiting the CareerEDGE model of graduate employability", *Journal of the National Institute for Career Education and Counselling*, Vol. 44, pp. 51-56, doi: 10.20856/jnicec.4408.

Dacre Pool, L. and Qualter, P. (2013), "Emotional self-efficacy, graduate employability, and career satisfaction: testing the associations", *Australian Journal of Psychology*, Vol. 65 No. 4, pp. 214-223, doi: 10.1111/ajpy.12023.

Dacre Pool, L. and Sewell, P. (2007), "The key to employability: developing a practical model of graduate employability", *Education and Training*, Vol. 49 No. 4, pp. 277-289, doi: 10.1108/00400910710754435.

Habets, O., Van der Heijden, B., Ramzy, O., Stoffers, J. and Peters, P. (2021), "Employable through social media: an intervention study", *Sustainability*, Vol. 13 No. 9, pp. 1-17, doi: 10.3390/su13095093.

Harry, T. and Chinyamurindi, W.T. (2019), "Labour market transition and experiences of unemployed graduates: an exploratory study", *African Journal of Employee Relations*, Vol. 43, pp. 1-31, doi: 10.25159/2520-3223/6705 or available at: https://hdl.handle.net/10520/EJC-1fa66a95a8

Harry, T. and Chinyamurindi, W. (2022), "'Still haven't found what I am looking for': rural black students' perceived work readiness and assessment of labour market access", *Education + Training*, Vol. 64 No. 2, pp. 276-289, doi: 10.1108/ET-10-2021-0387.

Harry, T., Chinyamurindi, W. and Mjoli, T. (2018), "Perceptions of factors that affect employability amongst a sample of final-year students at a rural South African university", *South African Journal of Industrial Psychology*, Vol. 44, pp. 1-10, doi: 10.4102/sajip.v44i0.1510.

Harwood, N. (2010), *Issues in Materials Development and Design*.

He, C., Gu, J., Wu, W., Zhai, X. and Song, J. (2016), "Social media use in the career development of graduate students: the mediating role of internship effectiveness and the moderating role of Zhongyong", *High Education*, Vol. 74 No. 6, pp. 1033-1051, doi: 10.1007/s10734-016-0107-8.

Healy, M., Cochrane, S., Grant, P. and Basson, M. (2023), "LinkedIn as a pedagogical tool for careers and employability learning: a scoping review of the literature", *Education and Training*, Vol. 65 No. 1, pp. 106-125, doi: 10.1108/ET-01-2022-0004.

Holweg, M. and van Donk, D.P. (2009), "When is a conceptual framework also a theoretical contribution?", *Operations and Supply Management (OMS) Forum*, pp. 1-3.

Hu, L. and Bentler, P. (1999), "Cut off criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives", *Structural Equation Modeling. A Multidisciplinary Journal*, Vol. 6, pp. 1-55, doi: 10.1080/10705519909540118.

Hu, T. and Zhang, P. (2016), "Social media usage as a formative construct: conceptualization validation and implication", *Journal of Information Technology Management*, Vol. 27 No. 4, pp. 151-168.

Hussain, M., Loan, F. and Yaseen, G. (2017), "The use of social networking sites (SNS) by the post-graduates students", *International Journal of Digital Library Services*, Vol. 7 No. 1, pp. 72-84.

Jackson, D. (2013), "Student perceptions of the importance of employability skill provision in business undergraduate programs", *Journal of Education for Business*, Vol. 88 No. 5, pp. 271-279, doi: 10.1080/08832323.2012.697928.

Kline, B.B. (2005), *Principles and Practice of Structural Equation Modeling*, 2nd ed., Guilford Press.

Lowden, K., Hall, S., Elliot, D. and Lewin, J. (2011), *Employers' Perceptions of the Employability Skills of New Graduates*, University of Glasgow SCRE Centre and Edge Foundation, London.

MacCallum, R.C., Browne, M.W. and Sugawara, H.M. (1996), "Power analysis and determination of sample size for covariance structure modeling", *Psychological Methods*, Vol. 1 No. 2, pp. 130-149, doi: 10.1037/1082-989X.1.2.130.

Mahlasela, S. and Chinyamurindi, W.T. (2020), "Technology related factors and their influence on turnover intentions: a case of government employees in South Africa", *The Electronic Journal of Information Systems in Developing Countries*, Vol. 86 No. 3, pp. 1-11, doi: 10.1002/isd2.12126.

Medrano, M., Ostariz, P., Aranda, L. and Costa, R. (2023), "Mobile learning and communication: educational change?; a systematic review", *Education and Training*, Vol. 65 No. 2, pp. 193-209, doi: 10.1108/ET-03-2022-0110.

Melao, N. and Reis, J. (2020), "Selecting talent using social networks: a mixed-methods study", *Heliyon*, Vol. 6 No. 4, pp. 1-11, doi: 10.1016/j.heliyon.2020.e03723.

Mseleku, Z. (2022), "Youth high unemployment/unemployability in South Africa: the unemployed graduates' perspectives", *Higher Education, Skills and Work-Based Learning*, Vol. 12 No. 4, pp. 775-790, doi: 10.1108/HESWBL-06-2021-0114.

Mulaik, S.A., James, L.R., Van Alstine, J., Bennett, N., Lind, S. and Stilwell, C.D. (1989), "Evaluation of goodness-of-fit indices for structural equation models", *Psychological Bulletin*, Vol. 105 No. 3, p. 430.

Murire, O., Cilliers, L. and Chinyamurindi, W. (2023), "Social media role in addressing employability challenges of graduates: an expert opinion analysis", *South African Journal of Human Resources Management*, Vol. 21, pp. 1-9, doi: 10.4102/sajhrm.v21i0.2047.

Nunnally, J. (1978), *Psychometric Theory*, 2nd ed., McGraw-Hill, New York.

OECD (2024), "Youth unemployment rate (indicator)". doi: 10.1787/c3634df7-en (accessed 15 February 2024).

Pitan, O.S. and Muller, C. (2020), "Student perspectives on employability development in higher education in South Africa", *Education + Training*, Vol. 63 No. 3, pp. 453-471, doi: 10.1108/ET-02-2018-0039.

Piveca, M. and Maček, A. (2019), "Employment background influence on social media usage in the field of European project management and communication", *Journal of Business Research*, Vol. 94, pp. 280-289, doi: 10.1016/j.jbusres.2018.03.021.

Rothwell, A., Jewell, S. and Hardie, M. (2009), "Self-perceived employability: investigating the responses of post-graduate students", *Journal of Vocational Behavior*, Vol. 75 No. 2, pp. 152-161, doi: 10.1016/j.jvb.2009.05.002.

Sanchez-Rivas, E., Nunez, M., Navas-Parejo, M. and Cruz-Campos, J. (2023), "Narrative-based learning using mobile devices", *Education and Training*, Vol. 65 No. 2, pp. 284-297, doi: 10.1108/ET-06-2022-0244.

Sangeeta, A. and Ahlawat, R. (2018), "E-recruitment via social networking sites: a comparative study with traditional recruitment methods", *International Journal of Scientific Research in Science, Engineering and Technology*, Vol. 4 No. 4, pp. 605-615.

Shava, H., Chinyamurindi, W. and Somdyala, A. (2016), "An investigation into the usage of mobile phones among technical and vocational educational and training students in South Africa", *South African Journal of Information Management*, Vol. 18 No. 1, pp. 1-8, doi: 10.4102/sajim.v18i1.716.

Shyju, P. and Chandra, S. (2018), "Employability of tourism graduates: an empirical study of experience of tourism service providers", *International Journal of Tourism and Travel*, Vol. 11 Nos 1 and 2, pp. 36-44, available at: https://ssrn.com/abstract=3338385

Statistics South Africa (2023), "P0211 - quarterly labour force survey (QLFS), 4th Quarter 2022", available at: https://www.statssa.gov.za/publications/P0211/P02114thQuarter2017.pdf (accessed 21 January 2021)

Sutherland, K. and Ho, S. (2017), "Undergraduate perceptions of social media proficiency and graduate employability: a pilot study", *Higher Education, Skills and Work-Based Learning*, Vol. 7 No. 3, pp. 261-274, doi: 10.1108/HESWBL-02-2017-0018.

Tanser, N. (2017), *The Darker Side of Social Media: Effects on Employability*, available at: https://www.wessexscene.co.uk/features/2017/01/09/the-darker-side-of-social-media-effects-on-employability/

Walker, M. and Fongwa, S. (2017), *Universities, Employability and Human Development*, Palgrave Macmillan, London.

Walker, A., Storey, K., Costa, B. and Leung, R. (2015), "Refinement and validation of the work readiness scale for graduate nurses", *Nurse Outlook*, Vol. 63 No. 6, pp. 632-638, doi: 10.1016/j.outlook.2015.06.001.

Williamson, J., Wardle, K. and Hasmi, H. (2020), "Developing WIL curriculum which enhances hospitality students capabilities", *Higher Education, Skills and Work-Based Learning*, Vol. 11 No. 3, pp. 635-248, doi: 10.1108/HESWBL-04-2020-0055.

Yamada, S. and Otchia, C. (2020), "Perception gaps on employable skills between technical and vocational education and training (TVET) teachers and students: the case of the garment sector in Ethiopia", *Higher Education, Skills and Work-Based Learning*, Vol. 11 No. 1, pp. 199-213, doi: 10.1108/HESWBL-08-2019-0105.

Further reading

Abdu, M. and Siudikiene, D. (2016), "An empirical study of searching for scholarships and jobs through using social networks, Features and Education Research", *International Journal of Social Sciences and Education Research*, Vol. 2 No. 1, pp. 14-23.

Aliu, J. and Aigbavboa, C. (2020), "Structural determinants of graduate employability: impact of university and industry collaborations", *Journal of Engineering, Design and Technology*, Vol. 19 No. 5, pp. 1080-1100, doi: 10.1108/JEDT-05-2020-0189.

Altman, M., Mokomane, Z. and Wright, G. (2014), "Social security for young people amidst high poverty and unemployment: some policy options for South Africa", *Development Southern Africa*, Vol. 31 No. 2, pp. 347-362, doi: 10.1080/0376835X.2013.873346.

Archer, E. and Chetty, Y. (2013), "Graduate employability: conceptualisation and findings from the university of South Africa", *Progressio*, Vol. 35 No. 1, pp. 134-165.

Arnedillo-Sánchez, I., de Aldama, C. and Tseloudi, C. (2017), "Mapping employability attributes onto Facebook: rESSuME: employability skills social media survey", *Data Driven Approaches in Digital Education*, pp. 523-527, doi: 10.1007/978-3-319-66610-5_54.

Bentler, P. (1990), "Comparative fit indexes in structural models", *Psychological Bulletin*, Vol. 107 No. 2, pp. 238-246, doi: 10.1037/0033-2909.107.2.238.

Chadha, D. and Toner, J. (2017), "Focusing in on employability: using content analysis to explore the employability discourse in UK and USA universities", *Toner International Journal of Educational Technology in Higher Education*, Vol. 14 No. 3, pp. 1-26, doi: 10.1186/s41239-017-0071-0.

Fox, L., Senbet, L. and Simbanegavi, W. (2016), "Youth employment in Sub-Saharan Africa: challenges, constraints and opportunities", *Journal of African Economies*, Vol. 25 No. 1, pp. 3-15, doi: 10.1093/jae/ejv027.

Holmes, L. (2013), "Competing perspectives on graduate employability: possession, position or process?", *Studies in Higher Education*, Vol. 38 No. 4, pp. 538-554, doi: 10.1080/03075079.2011.587140.

Hooley, T. (2017), "Climbing the employability mountain", available at: https://www.hecsu.ac.uk/current_projects_graduate_market_trends.htm (accesed 17 August 2022).

Huq, A. and Gilbert, D. (2013), "Enhancing graduate employability through work-based learning in social entrepreneurship: a case study", *Education and Training*, Vol. 55 No. 6, pp. 550-572, doi: 10.1108/ET-04-2012-0047.

Ibrahim, N., Rosidah, M. and Ainul, A. (2016), "Social Media Intelligence Quotient (SMIQ) among graduates: knowledge gathering from focus group with graduates", *Procedia Economics and Finance*, Vol. 37, pp. 304-308, doi: 10.1016/S2212-5671(16)30129-0.

Ismail, S. (2017), "Graduate employability capacities, self-esteem and career adaptability among South African young adults", *South African Journal of Industrial Psychology*, Vol. 43, pp. 1-10, doi: 10.4102/sajip.v43i0.1396.

Kagohara, D., Van der Meer, L., Ramdoss, S., O'Reilly, M., Lancioni, G., Davis, T., Rispoli, M., Lang, R., Marschik, P.B., Sutherland, D., Green, V.A. and Sigafoos, J. (2013), "Using iPods and iPads in teaching programs for individuals with developmental disabilities: a systematic review", *Research in Developmental Disabilities*, Vol. 34 No. 1, pp. 147-156, doi: 10.1016/j.ridd.2012.07.027.

Kalufya, N. and Mwakajinga, L. (2016), "Employability of graduates from higher education institutions in Tanzania", *Institute of Social Work Journal*, Vol. 1 No. 2, pp. 51-68.

Kaplan, A. and Haenlein, M. (2010), "User's of the world, Unite! The challenges and opportunities of Social Media", *Business Horizons*, Vol. 53 No. 1, pp. 59-68, doi: 10.1016/j.bushor.2009.09.003.

Kirstein, M, Coetzee, S. and Schmulian, A. (2016), "Differences in accounting students' perceptions of their development of generic skills and emotional intelligence in a heterogeneous classroom", *Higher Education, Skills and Work-Based Learning*, Vol. 9 No. 1, pp. 41-59, doi: 10.1108/HESWBL-04-2018-0051.

Lord, R., Lorimer, R., Babraj, J. and Richardson, A. (2019), "The role of mock job interviews in enhancing sport students' employability skills: an example from the UK", *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 25, pp. 1-10, doi: 10.1016/j.jhlste.2019.04.001.

Mawson, M. and Haworth, A. (2018), "Supporting the employability agenda in university libraries: a case study from the University of Sheffield", *Information and Learning Sciences*, Vol. 119 Nos 1/2, pp. 101-108, doi: 10.1108/ILS-04-2017-0027.

Mmesi, M. (2015), "South Africa's youth unemployment problem: what we need to know", available at: http://www.polity.org.za/article/south-africas-youthunemployment-problem-what-we-need-to-know-2015-05-28 (accessed 16 June 2021).

Pallant, J. (2015), *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows*, 5th ed., Open University Press, Maidenhead.

Reddy, V., Bhorat, H., Powell, M., Visser, M., and Arends, A. (2016), *Skills Supply and Demand in South Africa*, Human Sciences Research Press, Pretoria.

Saunders, M., Lewis, P. and Thornhill, A. (2012), *Research Methods for Business Students*, 4th ed., Pearson Education, London.

Swan, G. (2012), "Using social media to boost student employability", available at: https://www.theguardian.com/higher-education-network/blog/2012/jun/18/social-media-to-boost-student-employability (accessed 21 January 2021).

Tess, P. (2013), "The role of social media in higher education classes (real and virtual) - a literature review", *Computer Human Behaviour*, Vol. 29 No. 5, pp. 60-68, doi: 10.1016/j.chb.2012.12.032.

Tomlinson, M. (2012), "Graduate employability: a review of conceptual and empirical themes", *Higher Education Policy*, Vol. 25 No. 4, pp. 407-431, doi: 10.1057/hep.2011.26.

Tsitskaria, E., Goudas, M., Tsalouchoua, E. and Michalopouloua, M. (2017), "Employers' expectations of the employability skills needed in the sport and recreation environment", *Journal of Hospitality, Leisure, Sport and Tourism Education*, Vol. 20, pp. 1-9, doi: 10.1016/j.jhlste.2016.11.002.

Tymon, A. (2013), "The student perspective on employability", *Studies in Higher Education*, Vol. 38 No. 6, pp. 841-856, doi: 10.1080/03075079.2011.604408.

van Sonderen, E., Sanderman, R. and Coyne, J. (2013), "Ineffectiveness of reverse wording of questionnaire items: let's learn from cows in the rain", *PLoS One*, Vol. 8 No. 7, pp. 1-15, doi: 10.1371/journal.pone.0068967.

Wiid, J. and Diggines, C. (2015), *Marketing Research*, 2nd ed., Juta, Cape Town.

Zhang, X., Noor, R. and Savalei, V.V. (2016), "Examining the effect of reverse worded items on the factor structure of the need for cognition scale", *PLoS ONE*, Vol. 11 No. 6, pp. 1-15, doi: 10.1371/journal.pone.0157795.

Zwane, T. (2015), "Quality development needed to solve crisis of unemployment", available at: https://mg.co.za/article/2015-06-09-quality-development-needed-to-solve-crisis-of-unemployment/ (accessed 17 July 2022).

Corresponding author
Willie Chinyamurindi can be contacted at: wchinyamurindi@ufh.ac.za