

University students' digital world of work readiness in relation to their employability competency

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Abstract

This research empirically examined the extent to which university students' perceptions about their readiness for the digital-era work world predict their sense of employability competency. Data were collected from 486 undergraduate students of a comprehensive South African distance learning higher education institution. Regression analysis and structural equation modelling revealed that students' perceptions of their world of work readiness (i.e. job/occupation certitude and job/occupation fitness) significantly predict their sense of employability competency. The study highlights the importance of building confidence or certainty within students during their academic career about the knowledge, skills and occupations they want to pursue in the digital-era work sphere to positively influence their sense of employability competency. Should they feel positive about their work world readiness, they are more likely to exhibit the employability competency of business ingenuity and social digital agility which are deemed essential for the new normal work context.

Keywords: perceived work readiness; job/occupation certitude; job/occupation fitness; world of work competencies; employability; business ingenuity; sociodigital agility.

Introduction

The discussion around graduates' employability competencies and new digital world of work readiness remains essential for their fitness and readiness for the competitive and volatile technologically driven career space, also referred to as the new normal world of work (Bates, et al., 2019; Bridgstock, Grant-Imaru & McAlpine, 2019; Ramnund-Mansingh & Reddy, 2021; Tomlinson & Holmes, 2017). A vast amount of research is found on the influence of external forces such as technological changes, digital disruption and artificial intelligence on the new world of work which profoundly affect the employability of graduates (Atkins, 2020; Hite & McDonald, 2020; Industry Week, 2020; Lent, 2018; Potgieter, 2021; Potgieter, Ferreira & Coetzee, 2019). Higher education institutions should focus on additional skills and capabilities needed to develop graduates' employability competency and increase their perceived readiness for the future workplace (Ramnund-Mansingh & Reddy, 2021). Masole and Van Dyk (2016) found that graduates and employees alike feel ill prepared for the world of work. They noted that there is a need for graduates to develop competencies beyond their qualifications to prepare them for the stressful and ever-changing world of work.

This article provides deeper insight into higher education students' perceptions about their world of work readiness and fitness, and the degree to which these perceptions predict their sense of employability competency. This research thus goes beyond the study of mere skills and personal qualities in order to make an original contribution to the body of knowledge concerned with graduates' employability in the digital-era work world. First, the study may spark a discussion on the employability competency graduates require for the digital-era world of work. Secondly, the study findings can be used by higher education institutions and career development practitioners to guide students in developing the required readiness and employability competency for the 2020s world of work.

Literature review

According to Ramnund-Mansingh and Reddy (2021), graduates need to take proactive steps to prepare themselves and develop suitable employability competencies for the new digitally driven career space. Bridgstock, Grant-Imaru and McAlpine (2019) suggest that employability preparation can be done by developing awareness and insight into one's

own career values, competencies and interests, as well as the available employment opportunities. Choate et al. (2019) found that employees who are actively involved in their own career development and employability management show higher levels of work readiness, employability, job search success and mental wellbeing.

Wilton and Jackson (2017) also emphasised that it is critical for graduates to feel self-assured about their employability if they are to succeed in the current turbulent business environment. Several scholars in the field suggest that self-assured individuals are better able to present their employability competences while searching for job opportunities (Coetzee, Ferreira & Potgieter, 2019; Kim, Kim, & Lee, 2015; Onyishi et al., 2015). Berntson and Marklund (2007) as well as Kinnunen et al. (2011) reported that individuals with high levels of self-perceived employability show better work performance and wellbeing. It is also evident from the literature that the new digital world of work (characterised by rapid forces, digital changes, high unemployment rates, economic challenges and globalisation) negatively influenced graduates' confidence to succeed in finding and maintaining employment (Bezuidenhout, 2011; Walsh & Gleeson, 2022).

Reskilling and upskilling human capital and, therefore, producing graduates who are perceived by themselves and others as employable, is a global national strategic research priority (Florek-Paszkowska, Ujwary-Gil & Godlewska-Dziobon, 2021). South African scholars also continue to draw attention to the students' orientation about the world of work and confidence in their own abilities on the actual world of work employability competencies required in the new normal digitally driven career space (Coetzee, 2022; Ramnund-Mansingh & Reddy, 2021).

Numerous literature is found on the associations between employment and other factors such as self-confidence, self-efficacy, personality attributes and quality of qualifications (Beaumont, Geyde & Richardson, 2016; Dacre Pool & Sewell, 2007; Finch et al., 2016; Kim, Kim & Lee, 2015; Onyishi et al., 2015). Coetzee, Ferreira and Potgieter (2019) confirmed that more research is needed on individuals' perceptions about the employability competencies needed to find suitable employment within the new digital world of work. Zakaria and Alhassan (2019) raised the critical question that if students perceive that their qualifications are preparing them adequately for the digital work world, will it enhance their sense of employability competency? This paper addresses this gap

and aims to determine whether university students' perceptions about their world of work readiness will significantly influence their sense of employability competency. It is evident from the preceding discussion that it is important to assess the association between these constructs to determine whether it is useful to enhance students' perceptions about their fitness for the current world of work and their employability competency. We propose that should graduates have a positive digital world of work readiness perception, they will exhibit higher levels of business ingenuity and social digital agility as an essential employability competency for the new normal digital career and work context.

World of work readiness

In the context of the present study, students' world of work readiness alludes to their confidence or certitude in finding work in an occupation that suits their career and study interests. Students also feel highly certain (self-assured) that their university studies are preparing them for the 2020s work world and open new career pathways for them. In other words, they feel confident that their career interests and studies fit the jobs and occupations that are emerging in the digital-era work world (i.e. they have perceptions of job/occupation fitness) (Coetzee, Ferreira & Potgieter, 2021). Students further exhibit a positive sense of certainty (i.e. certitude) about the knowledge and skills needed for the jobs and occupations in their field of study. They have certainty that their qualification will help them to qualify for jobs and occupations of interest to them and they have clear, written plans to get into the chosen occupation (i.e. they exhibit job and occupation certitude) (Coetzee, Ferreira & Potgieter, 2021).

Higher education scholars express the need for students to build the necessary career capital and intrinsic motivation to confidently navigate their careers, while gaining a sense of control in the face of a rapidly evolving and uncertain technology-driven world of work (Bridgstock, Grant-Imaru & McAlpine, 2019; Choate et al., 2019; Brown, Hooley & Wond, 2020). The view on employability has shifted from the focus being on 'ability' rather than to 'employ' (Yorke, 2006). Higher education institutions should aim to empower students and enhance their self-perceived ability to successfully transit from graduate to the labour market. Clinkard (2018) noted that although higher education institutions have the responsibility to ensure that their curricula include critical employability competencies, the onus is also on the students to actively participate in developing employability

competencies. If graduates believe they are ready for the world of work, their transition to the workplace will be better (Keogh, Maguire & Donoghue, 2015).

The interpretation of employability, in both the higher education context as well as the labour market, now places the graduate at the steering wheel of their own future and destiny (Boden & Nedeva, 2010). Clinkard (2018) also indicated that graduates should adopt a growth mindset. It is thus the responsibility of a student to demonstrate the acquisition of non-technical skills and attributes, such as business ingenuity and sociodigital agility that are deemed essential for exhibiting digital-era employability competency (Coetzee & Veldsman, 2022).

Employability competency

Employability competency refers to students' sense of business ingenuity and sociodigital agility as two important capabilities for digital-era employability (Coetzee & Veldsman, 2022; Coetzee, Ferreira & Potgieter, 2021). Business ingenuity encompasses a range of employability skills and attributes such as communication, critical thinking, numeracy, business acumen, leadership, adaptability, innovation and multidisciplinary problem solving. These employability skills and attributes are well-recognised in the research literature as valuable human capital (Oliver & De St Jorre, 2018; Williams et al., 2016). Sociodigital agility alludes to the employability skills and attributes needed for a technological-driven work world. These include people skills, the ability to work in a team and collaborate with others, valuing social and cultural diversity, agency and agility in career management, agile digital savvy and dexterity in adopting and using digital media, social media and other communication tools and platforms, and generating creative solutions for problems affecting the needs in society, the community and the workplace (Coetzee & Veldsman, 2022; Dondi et al., 2021).

The new digitally driven world of work requires graduates to continuously adapt to and advance with the changes and transformation of the career and work space (Deloitte, 2021). Only career agile employees will have the required competencies and employability to succeed in the fast advancing technologically driven world of work of the 2020s (Coetzee & Veldsman, 2022). Valickas, Raišienė and Rapuano (2019) noted that graduates' desires to build employability competencies is fuelled by their career mindset

and their perceptions about the labour market and its requirements. The career capital theory (Defillippi & Arthur, 1994) is used to explain the perception of graduates' world of work orientation and their career mindsets.

According to the career capital theory, when students believe they have the knowledge and competencies to succeed in the world of work, they will actively search for job opportunities and opportunities to upskill themselves and build on their employability (Sutherland et al., 2015). Within the current digital era, it is also essential for graduates and employees to be agile and adaptable and be able to communicate effectively with people from a diverse workforce, both face-to-face as well as on digital platforms. Graduates are perceived to have sociodigital agility when they show social awareness and can function and network successfully with colleagues both within a traditional, as well as a digital, work setting (Coetzee & Veldsman, 2022; Dondi et al., 2021).

The current study examined the degree to which students' perceptions of their world of work readiness (job/occupation fitness and job/occupation fitness) predict their business ingenuity and sociodigital agility (employability competency).

This research aimed to explore the extent to which university students' perceptions about their work readiness predicts their employability competency. As such, the hypothesis was that university students' perceptions about their work readiness positively and significantly predict their sense of employability competency.

Methods

A cross-sectional quantitative approach was used to measure students' perceptions about their work readiness and their sense of employability competency. A self-administered questionnaire was used to collect data.

Population and sample

A total of 486 students enrolled for undergraduate studies in 2021 within the economic and management sciences field at a distance learning higher education institution participated in this study. Ethical clearance was obtained to conduct this research. All registered

students were invited to voluntarily and anonymously participate in this research via an e-mail sent by the system administrator. The invitation contained an URL link to an online survey. Informed consent was obtained from participants that all data can be used for anonymous group-based research purposes. The participants were predominantly women (65%), had a mean age of 34.34 years ($SD = 9.12$; age range 25–55 years) and were mostly in full-time employment (72%).

Measuring instrument

Participants completed two measures. The first measure related to students' personal evaluation of their current digital-era employability competency (business ingenuity and sociodigital agility). The second facet measured their perceptions about the extent to which their studies contributed to their world of work readiness (job and occupation certitude, and job and occupation fitness). Participants' responses were measured on a Likert-type of scale as such scales generate data for interval statistics such as descriptive statistics, correlations, regressions, and factor analysis (Allen & Seaman, 2007).

Employability competency

The 2020s world of work orientation scale developed by Coetzee, Ferreira and Potgieter (2021) was used to measure students' evaluations of their business ingenuity (11 items, e.g. 'My critical thinking and analysis skills are excellent') and sociodigital agility (10 items, e.g. 'I find it easy to work in a team and collaborate with others to solve business problems'). This scale was developed after a comprehensive literature review on the required additional employability competencies needed for the digital world of work (Dondi et al., 2021). Responses were measured on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). The internal reliability coefficients of the subscales were .94 (business ingenuity) and .91 (sociodigital agility). The construct validity of this scale was confirmed by Coetzee, Ferreira and Potgieter (2021).

World of work readiness

The level to which students perceived their qualification to contribute to their world of work readiness was also measured by the 2020s world of work orientation scale (Coetzee, Ferreira & Potgieter, 2021). The scale measured perceptions of students' job/occupation certitude (6 items, e.g. 'I feel confident in finding work in an occupation that might suit my

career and study interests') and job/occupation fitness (6 items, e.g. 'My studies equip me with the knowledge and skills that I need to apply in my job') were measured on a 7-point Likert scale (1 = strongly disagree; 7 = strongly agree). The internal reliability coefficients of the subscales were .88 and .92, respectively. Coetzee, Ferreira and Potgieter (2021) confirmed the construct validity of the scale.

Statistical procedures

Discriminant validity among the latent variables within the measurement model was measured using confirmatory factor analysis (CFA). Maximum likelihood estimation was applied using the AMOS Version 28 statistical analysis programme. Firstly, a single factor CFA was tested and, thereafter, a multi-factor CFA.

Descriptive statistics, internal consistency reliability coefficients (Cronbach alpha and composite reliability [CR]), Pearson product-moment correlations and linear regression analysis were calculated and analysed using IBM Corp SPSS Version 28. Significant regression effects at the 95% confidence interval were interpreted by using the bootstrapping stringent lower level confidence interval (LLCI) and upper level confidence interval (ULCI) range not containing zero (Hair et al., 2010). The observed statistically significant ($p \leq .05$) work readiness regression estimates on the seven world of work competency variables were then subjected to structural equation modelling (SEM) to assess the validity of the structural model. The statistical package AMOS Version 28 was utilised. The following threshold fit indices for model fit suggested by Hair et al. (2010) served as a guideline for CFA and SEM model acceptance: CMIN/df < 3; RMSEA and SRMR < .07; CFI \geq .90.

Results

Testing the measurement model

The fit statistics of two alternative models were compared to the baseline model. The single factor CFA model (loading all indicators onto a single latent variable) did have a good fit with the data: CMIN/df = 2.96; RMSEA = .06; SRMR = .05; CFI = .91; AIC = 1588.6. The final multi factor latent variable model (with indicators loading onto their

respective factor) showed better and good model fit and, thus, discriminant validity among the latent variables: CMIN/df = 2.96; RMSEA = .06; SRMR = .05; CFI = .91; AIC = 1588.6.

Table 1. Descriptive statistics and bivariate correlations

Variable	α	CR	Mean (SD)	1	2	3	4
1 Job/occupation certitude	.88	.88	5.27 (1.09)	-			
2 Job/occupation fitness	.91	.91	5.37 (1.14)	.74 ***	-		
3 Business ingenuity	.93	.93	5.46 (.92)	.71 ***	.54 ***	-	
4 Sociodigital agility	.91	.91	5.86 (.84)	.69 ***	.54 ***	.86 ***	-

195 *** $p \leq .001$; ** $p \leq .01$; * $p \leq .05$. $r \leq .30$ (small practical effect size), $r \geq .30 \leq .49$ (medium practical effect size), $r \geq .50$ (large practical effect size)

Table 1 provides a summary of the descriptive statistics and bivariate correlations. The internal consistency reliability coefficients (both Cronbach alphas and CRs) were higher ($\geq .71$) than the cut-off value (.70) for good reliability (Hair et al., 2010). The perceived job readiness variables (job/occupation certitude and job/occupation fitness) also had positive and significant correlations ($p = .0001$) with the world of work competency variables ($r \geq .54 \leq .86$ [large practical effect]).

Regression estimates and validity of structural model

Tables 2 and 3 show the regression estimates results for the regression of the job readiness on the world of work competency variables. The F-statistic for the linear models was significant ($F = 172.21$; $p = .001$; adjusted $R^2 = .41$ [moderate practical effect]).

Table 2. Regression of perceived world of work readiness on business ingenuity

Model variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B.	Std. Error				Tolerance	VIF
(Constant)	2.443	.17		14.28	.000***		
Job/occupation certitude	.47	.04	.55	11.78	.000***	.55	1.81
Job/occupation fitness	.10	.04	.13	2.76	.006**	.55	1.81

Table 3. Regression of perceived world of work readiness on sociodigital agility

Model variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
	B.	Std. Error				Tolerance	VIF
(Constant)	3.21	.16		20.14	.000***		
Job/occupation certitude	.40	.04	.51	10.67	.000***	.55	1.81
Job/occupation fitness	.10	.04	.15	3.01	.003**	.55	1.81

The variance inflation factor (VIF) values for all the variables were inspected to determine collinearity issues to avoid bias estimates or misleading of the results (Hair et al., 2010). No potential collinearity issues were detected as the results revealed VIF values of <1.81.

As shown in table 2, both perceived job/occupation certitude as well as perceived job/occupation fitness positively predicted business ingenuity (as a digital-era employability competency). Job/occupation certitude ($\beta = .55$; $p = .000$) had a stronger explanatory function than job/occupation fitness ($\beta = .13$; $p = .006$). Table 3 also shows that both perceived job/occupation certitude and perceived job/occupation fitness positively

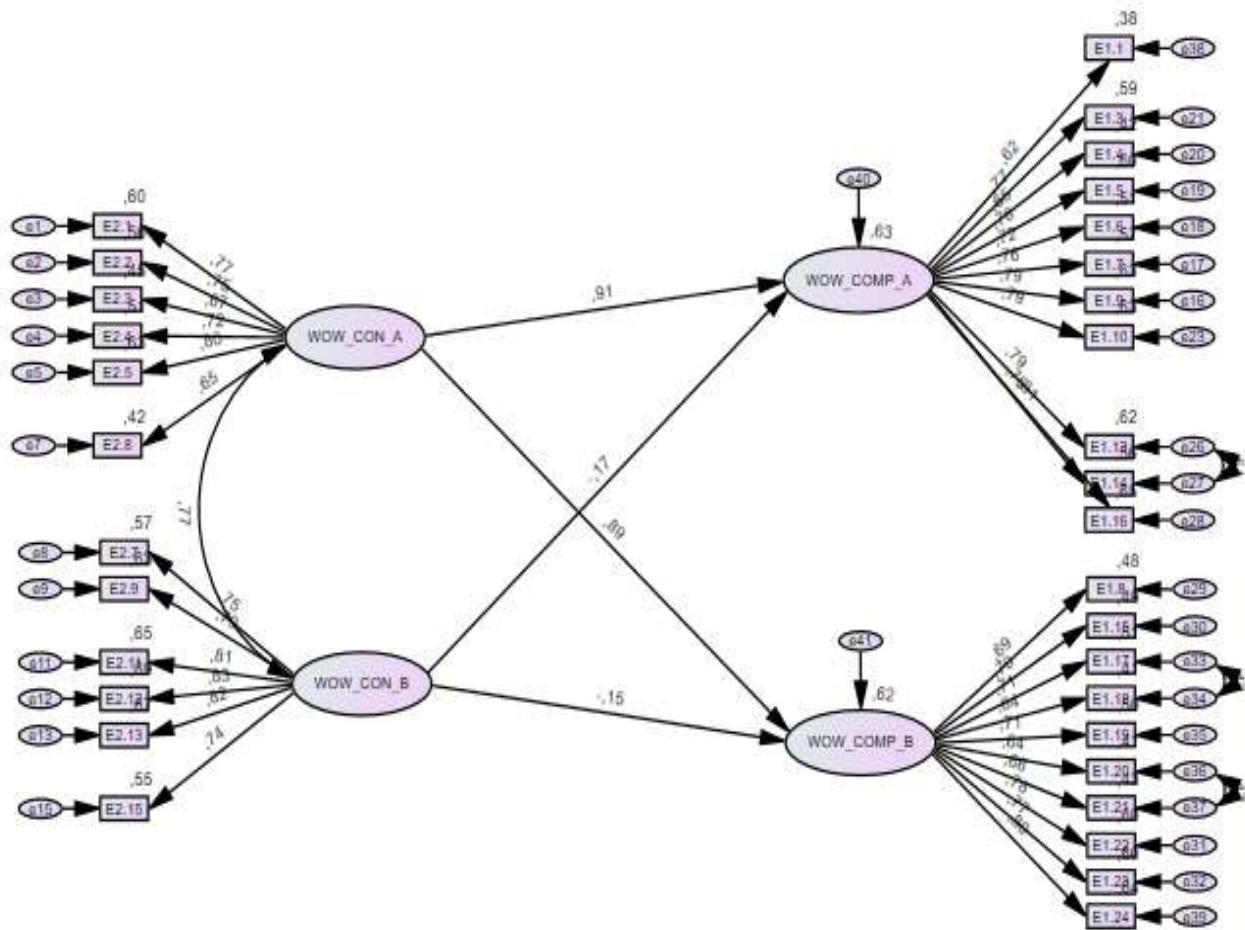
predicted sociodigital agility. Again, job/occupation certitude ($\beta = .51$; $p = .000$) had a stronger explanatory function than job/occupation fitness ($\beta = .15$; $p = .003$).

To further determine the predictive value of perceived work world readiness on employability competency and to assess the validity of the structural model, the results were subjected to structural equation modelling (SEM). The structural model had a good fit with the data (CMIN/df = 3.36; RMSEA = .07; SRMR = .07; CFI = .90).

Standardised path coefficients were evaluated to determine the convergent validity for the structural model's factor structure. A significant standardised path coefficient of .30 or more indicates that a variable contributes effectively to the construct it intended to measure (Loewenthal & Lewis, 2018).

Figure 1 below provides the path coefficients for the regression model of perceived world of work readiness to business ingenuity and sociodigital agility as expressions of digital-era employability competency.

Figure 1. Structural equation regression model



It is evident from figure 1 that only perceived job/occupation certitude (WOW-CON_A) showed path coefficients above .30. This, thus, provides an indication that job and occupation certitude had a higher significant predictive weight to business ingenuity (WOW_COMPA = .91) and social digital agility (WOW_COMP_B = .89) than job/occupation fitness. The structural equation model confirms the regression analysis results that job certitude was the most significant predictor of employability competency.

Discussion and recommendation

The world of work is transformed by rapid changes and evolutionary technological advancement. The changes inevitably impacted on the nature of organisations, careers, jobs and occupations (Ramnund-Mansingh & Reddy, 2021). As a result, higher education institutions have an obligation to prepare the students for the new world of work, by means of career development learning processes, knowledge about the world of work, self-

awareness, appropriate career mindsets and the required skills to successfully navigate their careers within a digital world of work (Bridgstock, Grant-Imaru & McAlpine, 2019; Choate et al., 2019). Developing appropriate employability competencies is, however, a dual role and graduates themselves also need to adopt a growth mindset and engage in active competency development (Clinkard, 2018).

This paper contributes deeper insight into university students' perception regarding their readiness for the new world of work through their university studies and the influence it has on their digital-era employability competency. The paper creates an awareness and provides empirical evidence of the contribution of higher education studies to students' perceptions of their readiness for jobs and occupations in the 2020s work world. It appears from the findings that students' certainty (i.e. certitude) about the knowledge and skills they gained from their studies, their knowledge about career paths that reside with the qualification field and having clear career plans contributed to their level of business ingenuity and sociodigital agility (as expressions of digital-era employability competency). Their perceptions of these two employability competencies were further strengthened by their perception that the university studies helped them to find jobs and occupations that best fit their career interests and adequately prepared them for the 2020s world of work.

The results of this study corroborate findings of Coetzee (2022) as well as Cortellazzo et al. (2020) that graduates' perceptions about their careers and the work world explain their world of work orientation. Abessolo, Rossier and Hirschi (2017) also highlighted the importance of understanding how an individual's perceptions influence their career exploration process and engagement with the new world of work.

A positive perception about being prepared and ready for what is required within the new world of work seemed to enhance the business ingenuity employability competency facet which alludes to individuals' communication skills, critical thinking and analysis, creative problem-solving approaches, and an agile and adaptable mindset toward the digital-era world of work. A positive perception about being prepared for the world of work further seemed to enhance individuals' sociodigital agility, which include competencies such as people skills, ability to communicate with a diverse workforce, career self-management and the ability to confidently use digital media, social media and other technological

communication platforms and tools (Coetzee, Ferreira & Potgieter, 2021; Dondi et al., 2021).

The results, thus, link with the research of Bates et al. (2019), who noted that when an individual believes they have the 'know-how', they will more successfully pursue their career goals. The findings further corroborate the empirical results of Cortellazzo et al. (2020), who found that an individual's positive perception fuels the eagerness to pursue challenging goals, such as developing the appropriate employability competencies for the new world of work. The present study's results are strengthened by Stein and Irvine's (2015) observation that positive attitudes and perceptions about one's own abilities strengthen perceived employability competency.

The findings of this study further emphasise the need for higher education institutions to integrate career development planning and world of work readiness into the curriculum (Choate et al., 2019). Clinkard (2018) and Hernandez-Lopez et al. (2016) all confirmed that further refinement of the current curriculum is essential for graduates to obtain the required employability competencies for the marketplace. This might stimulate a positive perception about their readiness for the digital-era world of work. Career development planning may deepen students' insights about their own readiness for what the new world of work requires. It may also raise a curiosity towards understanding the new job and occupation requirements of the changing digital era towards a sustainable career success and required employability. As a result, graduates' readiness and employability competency for the 2020s work world may be enhanced.

Limitations and future research

The participating students were all registered for an undergraduate degree within Economic and Management Sciences at a single distance learning university and the majority of these students were already in some form of employment. The study should, thus, be considered as exploratory in nature, without drawing any generalisations. It is suggested that future studies widen the sample to include more unemployed students, students registered within different qualification fields, postgraduate students and within residential universities as well. The study was conducted using a cross-sectional research approach and it is recommended that this study be replicated using a longitudinal research

approach. A longitudinal approach may further assist in determining if a shift is present in the perceived readiness at the beginning and the end of a qualification.

Conclusion

Despite the research design limitations, the study revealed important preliminary empirical insights that extended research on students' perception about their readiness for the new world of work and the influence it may have on their digital-era employability competency. Previous research focused on employability attributes whereas this study focused on the skills and attributes of business ingenuity and sociodigital agility as two essential expressions of digital-era employability competency. The results may spark a discussion on the employability and competencies of graduates required for the new world of work. In addition, the findings may inform higher education institutions and career development practitioners in guiding students on developing the required competencies for employability in the digital-era world of work.

References

- Allen, E., and Seaman, C.A. (2007) 'Likert scales and data analyses', *Quality Progress*, 40(12), pp.64-65.
- Abessolo, M., Rossier, J. and Hirschi, A. (2017) 'Basic values, career orientations, and career anchors: empirical investigation of relationships', *Frontiers in Psychology*, 8(1556), pp.1–11. <https://doi.org/10.3389/fpsyg.2017.01556>
- Atkins B. (2020) *The future of work is now*. Forbes. Available at: <https://www.forbes.com/sites/betsyatkins/2020/03/20/the-future-of-work-is-now/?sh=1b9f22451b47> (Accessed 24 April 2023).
- Bates, G.W., Rixon, A., Carbone, A. and Pilgrim, C. (2019) 'Beyond employability skills: developing professional purpose', *Journal of Teaching and Learning for Graduate Employability*, 10(1), pp.7–26. <https://doi.org/10.21153/jtlge2019vol10no1art794>

- Beaumont, E., Gedye, S., & Richardson, S. (2016). "Am I employable?": understanding students' employability confidence and their perceived barriers to gaining employment', *Journal of Hospitality, Leisure, Sport, & Tourism Education*, 19, pp.1–9. <https://doi.org/10.1016/j.jhlste.2016.06.001>
- Berntson, E. and Marklund, S. (2007) 'The relationship between perceived employability and subsequent health', *Work & Stress. An International Journal of Work, Health & Organisations*, 21(3), pp.279–292. <https://doi.org/10.1080/02678370701659215>
- Bezuidenhout, M. (2011) *The development and evaluation of a measure of graduate employability in the context of the new world of work*. Unpublished Masters degree thesis. University of Pretoria.
- Boden, R. and Nedeva, M. (2010) 'Employing discourse: universities and graduate 'employability'', *Journal of Education Policy*, 25(1), pp.37–54. <https://doi.org/10.1080/02680930903349489>
- Bridgstock, R., Grant-Imaru, M. & McAlpine, A. (2019) 'Integrating career development learning into the curriculum: collaboration with the careers service for employability', *Journal of Teaching and Learning for Graduate Employability*, 10(1), pp.56–72. <https://doi.org/10.21153/jtlge2019vol10no1art785>
- Brown, C., Hooley, T. and Wond, T. (2020) 'Building career capital: developing business leaders' career mobility', *Career Development International*, 25(5), pp.445–459. <https://doi.org/10.1108/CDI-07-2019-0186>
- Choate, J., Demaria, M., Etheve, M., Cran, S. and Carroll, D. (2019) 'A professional development program with an assessed eportfolio: a practical solution for engaging undergraduates with their career development in large student cohorts', *Journal of Teaching and Learning for Graduate Employability*, 10(2), pp.86–103. <https://doi.org/10.21153/jtlge2019vol10no2art788>

- Clinkard, K. (2018) 'Are employability and entrepreneurial measures for higher education relevant? Introducing AGILE reflection', *Industry and Higher Education*, 32(6), pp.375-390. <https://doi.org/10.1177/0950422218808625>
- Coetzee, M. (2022) 'Career agility for purposive career exploration: role of adult learners' career orientations and digital-era world of work awareness', *African Journal of Career Development*, 4(1), a54. <https://doi.org/10.4102/ajcd.v4i1.54>
- Coetzee, M., Ferreira, N. and Potgieter, I.L. (2019) 'Employer requirements and employability mindsets influencing graduate workers' self-confidence in gaining employment', *African Journal of Career Development*, 1(1), a4. <https://doi.org/10.4102/ajcd.v1i1.4>
- Coetzee, M., Ferreira, N. and Potgieter, I.L. (2021). *World of work orientation scale*. Unpublished research report, Department of Industrial and Organisational Psychology, University of South Africa.
- Coetzee, M. and Veldsman, D. (2022) 'The digital-era industrial/organisational psychologist: Employers' view of key service roles, skills and attributes', *South African Journal of Industrial Psychology*, 48(0), a1991. <https://doi.org/10.4102/sajip.v48i0.1991>
- Cortellazzo, L., Bonesso, S., Gerli, F. and Batista-Foguet, J.M. (2020) 'Protean career orientation: behavioral antecedents and employability outcomes', *Journal of Vocational Behavior*, 116, pp.1–12. <https://doi.org/10.1016/j.jvb.2019.103343>
- Dacre Pool, L., and Sewell, P. (2007) 'The key to employability: developing a practical model of graduate employability', *Education + Training*, 49(4), pp.277–289. <https://doi.org/10.1108/00400910710754435>
- Defillippi, R.J. & Arthur, M.B. (1994) 'The boundaryless career: A competency-based perspective', *Journal of Organizational Behavior*, 15(4), pp.307–324. <https://doi.org/10.1002/job.4030150403>

Deloitte, A.B. (2021) *2021 Transparency Report*. Available at:

<https://shared.deloitte.se/docs/Transparency%20report%202021.pdf> (Accessed: 21 April 2023).

Dondi, M., Klier, J., Panier, F., and Schubert, J. (2021) *Defining the skills citizens will need in the future world of work*. Available at:

<https://www.mckinsey.com/industries/public-and-social-sector/our-insights/defining-the-skills-citizens-will-need-in-the-future-world-of-work> (Accessed: 21 April 2023).

Finch, D.J., Peacock, M., Levallet, N., and Foster, W. (2016) 'A dynamic capabilities view of employability: exploring the drivers of competitive advantage for university graduates', *Education + Training*, 58(1), pp.61–81. <https://doi.org/10.1108/ET-02-2015-0013>

Florek-Paszowska, A., Ujwary-Gil, A., and Godlewska-Dziobon, B. (2021) 'Business innovation and critical success factors in the era of digital transformation and turbulent times', *Journal of Entrepreneurship, Management and Innovation*, 17(4), pp.7-18. <https://doi.org/10.7341/20211741>

Hair, J.F., Black, W., Babin, B.J. and Anderson, R.E. (2010) *Multivariate data analysis: a global perspective*. 7th edn. New York: Pearson.

Hernandez-Lopez, L., Garcia-Almeida, D.J., Ballesteros-Rodriguez, J.L. and De Saá-Pérez, P. (2016) 'Students' perceptions of the lecturer's role in management education: knowledge acquisition and competence development', *International Journal of Management Education*, 14(3), pp. 411-421. <https://doi.org/10.1016/j.ijme.2016.10.001>

Hite, L.M., and McDonald, K.S (2020) 'Careers after COVID-19: challenges and changes', *Human Resource Development International*, 23(4). pp.427-437. <https://doi.org/10.1080/13678868.2020.1779576>

Industry Week. (2020). *9 trends impacting the future of work*. Available at:

<https://www.industryweek.com/covid19/article/21130761/9-trends-impactingthe-future-of-work> (Accessed: 21 April 2023).

Keogh, J., Maguire, T. and O'Donoghue, J. (2015) 'Graduate work-readiness in the 21st century', *Higher Education in Transformation Conference*, Technological University Dublin, Dublin, Ireland 31 March-1 April, pp.385–395. Available at:

<https://arrow.tudublin.ie/st4/2/> (Accessed: 21 April 2023).

Kim, S., Kim, H., and Lee, J. (2015) 'Employee self-concepts, voluntary learning behavior, and perceived employability', *Journal of Managerial Psychology*, 30(3), pp.264–279.

<https://doi.org/10.1108/JMP-01-2012-0010>

Kinnunen, U., Feldt, T., Siltaloppi, M. and Sonnentag, S. (2011) 'Job demands-resources model in the context of recovery: testing recovery experiences as mediators', *European Journal of Work and Organizational Psychology*, 20(6), pp.805–832.

<https://doi.org/10.1080/1359432X.2010.524411>

Lent, R.W. (2018) 'Future of work in the digital world: preparing for instability and opportunity', *The Career Development Quarterly*, 66, pp.205-219.

<https://doi.org/10.1002/cdq.12143>

Loewenthal, K. and Lewis, C.A. (2018) *An introduction to psychological tests and scales*. London: Psychology Press.

Masole, L. and Van Dyk, G. (2016) 'Factors influencing work readiness of graduates: an exploratory study', *Journal of Psychology in Africa*, 26(1), pp.70–73.

<https://doi.org/10.1080/14330237.2015.1101284>

Oliver, B., and De St Jorre, T. (2018) 'Graduate attributes for 2020 and beyond: recommendations for Australian higher education providers', *Higher Education Research and Development*, 37(4), pp.821-836.

<https://doi.org/10.1080/07294360.2018.1446415>

- Onyishi, I.E., Enwereuzor, I.K., Ituma, A.N., and Omenma, J.T. (2015) 'The mediating role of perceived employability in the relationship between core self-evaluations and job search behavior', *Career Development International*, 20(6), pp.604–626.
<https://doi.org/10.1108/CDI-09-2014-0130>
- Potgieter, I. L. (2021) 'Surviving the digital era: The link between positive coping, workplace friendship and career adaptability', in Ferreira, N., Potgieter I.L, and Coetzee, M (eds.) *Agile coping dynamics: Emerging issues for research and practice in a smart digital technological world of work*. Springer.
<https://doi.org/10.1007/978-3-030-70228-1>
- Potgieter, I. L., Ferreira, N., and Coetzee, M. (2019) *Theory, research and dynamics of career wellbeing: becoming fit for the future*. Cham, Switzerland: Springer Nature Switzerland. <https://doi.org/10.1007/978-3-030-28180-9>
- Ramkund-Mansingh, A. and Reddy, N. (2021) 'South African specific complexities in aligning graduate attributes to employability', *Journal of Teaching and Learning for Graduate Employability*, 12(2), pp.206–221.
<https://doi.org/10.21153/jtlge2021vol12no2art1025>
- Sutherland, M., Naidu, G., Seabela, S., and Crosson, S. (2015) 'The components of career capital and how they are acquired by knowledge workers across different industries', *South African Journal of Business Management*, 46(4), pp.1–10.
<https://doi.org/10.4102/sajbm.v46i4.104>
- Stein, J., and Irvine, A, K. (2015) 'Career preparedness and lifelong learning: a global perspective', *VOCEDplus: International tertiary education research database*. Available at: <http://hdl.voced.edu.au/10707/384353> (Accessed: 24 April 2023).
- Tomlinson, M. and Holmes, L. (eds.) (2017) *Graduate employability in context: theory, research and debate*. London: Palgrave MacMillan.

- Valickas, A., Raišienė, A. & Rapuano, V. (2019) 'Planned happenstance skills as personal resources for students' psychological wellbeing and academic adjustment', *Sustainability*, 11(12), 3401, pp.1–11. <https://doi.org/10.3390/su11123401>
- Walsh, L., and Gleeson, J. (2022) 'Theorising and preparing students for precarity: how can leaders and educators better prepare students to enter an increasingly insecure workforce?', *Journal of Educational Administration and History*, 54(1), pp.7-9. <https://doi.org/10.1080/00220620.2020.1868981>
- Williams, S., Dodd, L.J., Steele, C., and Randall, R. (2016) 'A systematic review of current understandings of employability', *Journal of Education and Work*, 29(8), pp.877-901. <https://doi.org/10.1080/13639080.2015.1102210>
- Wilton, D. and Jackson, N. (2017) 'Perceived employability among undergraduates and the importance of career self-management, work experience and individual characteristics', *Higher Education Research and Development*, 36(4), pp.747–762. <https://doi.org/10.1080/07294360.2016.1229270>
- Yorke, M. (2006) *Employability in higher education: what it is, what it is not*. York, England: Higher Education Academy.
- Zakaria, H. and Alhassan, Y.N. (2019) 'Tertiary students' perceptions about their prospects of employability: the case of students in Ghana', *Africa Education Review*, 16(5), pp.134–157. <https://doi.org/10.1080/18146627.2016.1227686>

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