


# The significance of employee biographics in explaining employability attributes



## Authors:

Jo-Anne Botha<sup>1</sup>   
Mariette Coetzee<sup>1</sup>

## Affiliations:

<sup>1</sup>Department of Human Resource Management, College of Economic and Management Sciences, University of South Africa, South Africa

## Corresponding author:

Mariette Coetzee,  
coetzm@unisa.ac.za

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**Background:** Employability is the capacity of employees to acquire transferable competencies and individual capacities that enable them to adapt to, be innovative in and steer their own careers in a dynamic work environment. It is clear that employers would thus look for employees who are capable of proactive adjustment and action-oriented behaviours.

**Aim:** The aim of the study was to determine whether significant differences exist in the employability attributes of individuals from different gender, race and age groups and if so, how should such a diverse workforce should be managed.

**Setting:** This study was conducted at a distance education institution. The sample of respondents consisted of adult learners who are pursuing further distance learning studies in the economic and management sciences field in South Africa.

**Methods:** Correlational and inferential statistical analyses were used. A stratified random sample of 1102 mainly black and female adult learners participated in the study.

**Results:** The employability attributes framework identified three categories of employability: interpersonal, intrapersonal and career attributes. The research indicated that significant differences exist between gender, race and age groups with regard to employability. Male and female participants differed significantly with regard to entrepreneurial orientation, proactivity and career resilience. The various race groups differed considerably regarding cultural competence and sociability of individuals. Participants older than 50 years scored the highest on self-efficacy.

**Conclusion and implications:** The findings of this research could ensure that previously disadvantaged individuals are not further marginalised because of a lack of employability attributes and that the required employability attributes can be cultivated to ensure advancement and success in the work place.

## Introduction

In the information age, driven by a knowledge economy, the principal means of production is knowledge, which underpins innovative and productive capacity in individuals (Bano & Taylor 2015; Boahin & Hoffman 2013). Bridgstock (2010) argues that employability extends beyond a specific list of generic skills listed by employers to incorporate the inculcation of competencies that would enable individuals to proactively steer and control their current and future careers, thereby enabling employees to successfully navigate the dynamic world of work in the new knowledge economy. In this economy, the employability of prospective and existing employees is of great interest globally (Boahin & Hoffman 2013). Employers in the knowledge economy expect to have employees who are capable of flourishing in the rigorously demanding postmodern workplace (Coetzee & Potgieter 2014; Coetzee & Schreuder 2013; Froehlich, Beusaert & Segers 2015; Jones 2013). The desire for employees who are sufficiently lithe to cope in a mutable milieu is based partially on the rapidity of knowledge generation and its concomitant speed of obsolescence (Bano & Taylor 2015). The rapid changes in knowledge and technological applications require employees who possess both functional knowledge and cognitive capability reinforced by a rigorous work-based value system (Coetzee & Potgieter 2014; Froehlich et al. 2015). According to Williams et al.'s (2016) finding, one unified definition of the concept 'employability' is challenging. They indicate that the comprehension of the concept of employability can be classified into three broad dimensions: (1) the capital dimension, which includes human capital, social capital, cultural capital and psychological capital; (2) the career management dimension; and (3) the contextual dimension, which indicates the economic and

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labour market contexts of diverse employment opportunities. Nurturing employability orientations and the ensuing agility it creates within an organisation may contribute to a high strategic significance for the organisation (De Vos, De Hauw & Van der Heijden 2011; Van Dam 2004). The importance of employability is emphasised by the fact that tertiary institutions are tasked with developing employability in their learners in order to increase the productive potential of employees of organisations (Boden & Nedeva 2010; Coetzee 2012; Eddy & Garza-Mitchell 2012). A workforce equipped to innovate in a dynamic world requires flexibility, independence, creativity, critical analysis, research skills and the ability to generate ideas. This means that higher education should focus on the development of transferable, generic skills. According to Bunney, Sharplin and Howitt (2016), university education should be driven by economic and social imperatives both of which should be reconciled in the generic skills argument. Unfortunately, tertiary institutions fail to recognise the contextual nature of generic skills and lack an explicit focus on employability skills (Bunney et al. 2016). Descriptions of employability range from the most basic – whether individuals are employed and/or how quickly graduates are able to secure employment, to a more holistic view of employability as a set of skills, personal attributes and/or human capital (Boden & Nedeva 2010; Williams et al. 2016).

## Employability

Employability attributes may be seen as a set of outlooks or intrinsic abilities that predisposes an individual to specific work- and career-related behaviours as well as the deliberate cognitive adjustment of goals and behaviours as and when required (Lent 2013; Potgieter, Coetzee & Masenge 2012). Employability attributes are related to individual dispositions and include self-esteem, emotional intelligence, intrinsic motivation, self-efficacy and autonomy (Coetzee 2012; Lent 2013). Employability attributes such as career resilience, career self-management, proactivity and self-efficacy may positively influence individual job performance, organisational performance and personal career outcomes (Lent 2013). Adams (2014) listed 10 skills employers seek: ability to work in a team structure, ability to make decisions and solve problems, communication, ability to plan, organise and prioritise, ability to obtain and process information, ability to analyse data, technical knowledge of the job, computer proficiency and ability to draft written reports. In support of this, Friedman, Friedman and Hampton-Sosa (2013) identified five major skills and/or traits: (1) communication skills, (2) having a positive attitude, (3) adaptability, (4) teamwork skills and (5) being goal oriented. In an attempt to refine the list of generic skills, Fischer and Friedman (2016) developed the six C's list. The six basic skills included (1) critical thinking, (2) communication, (3) collaboration, (4) creativity, (5) character and (6) curiosity or lifelong learning. By taking a thorough look at the skills listed, it should be clear that these skills are not normally taught by means of educational programmes. Integrating generic skills into crowded curricula would require additional

tuition and expertise that could be problematic. Academics also do not necessarily have the expertise required to teach generic skills (Bunney et al. 2016).

Williams et al. (2016) indicate that the evolutionary nature of the concept of employability requires that the concept should be deconstructed in order to develop a more accurate understanding of the concept. In South Africa, the employability attributes framework (Bezuidenhout & Coetzee 2011) identifies a set of employability attributes that can be broadly grouped into three categories: intrapersonal, interpersonal and career attributes (Botha 2014). These employability attributes allow employers to identify which learning or development opportunities to create for employees in order to facilitate the inculcation of the required attributes.

### Intrapersonal attributes

The employability attributes related to the intrapersonal dimension revolve around individualities that are equally significant in both the work context and the context of personal growth. The intrapersonal dimension of employability comprises *proactivity*, *self-efficacy* and *emotional literacy*.

*Proactivity* describes the ability of employees to adopt an agentic, active role in their employment career (Coetzee 2012; Bezuidenhout & Coetzee 2011; Potgieter 2012). There is a strong positive relationship between proactivity and extrinsic career success (Converse et al. 2012; Maurer & Chapman 2013). In a study on Lebanese entrepreneurs who lived and worked abroad, Zgheib and Kowatley (2011) found that proactivity was a strong predictor of internal locus of control, and thus, also self-directedness and a desire for proactive behaviour.

*Self-efficacy* denotes an inherent personal belief that sustained effort will lead to successful goal achievement in particular situations (Bezuidenhout & Coetzee 2011; Coetzee 2012; Potgieter 2012). Self-efficacy refers to the individual's belief in his or her capabilities to cope with a wide range of challenging or stressful demands (Bezuidenhout 2011). Self-efficacy describes the individual's perception of the difficulty level involved in the pursuit of career-oriented actions, his or her belief in the personal ability to implement the required actions successfully and the persistence of his or her beliefs in adverse situations. Self-efficacy is also associated with the personal belief of individuals in their ability to set goals successfully and to attain these goals in specific circumstances (Potgieter 2012). Individual autonomy and self-management, goal-directed behaviour, perseverance, proactive pursuit of learning opportunities and implementing creative solutions to problems comprise the construct of self-efficacy (Coetzee 2012). Employers nowadays require employees who can and do actively manage and control their own careers, with little help and/or input from the employer (Coetzee 2012; Fugate, Kinicki & Ashforth 2004; Potgieter & Coetzee 2013; Sewell & Pool 2010). Positive, well-developed self-efficacy is positively associated with job satisfaction and successful careers (Choi et al. 2011; Guan et al. 2013; Tews, Michel & Noe 2011).

*Emotional literacy* is the capability to be aware of and manage emotions – one's own as well as those of others – or emotional situations in order to achieve positive social outcomes (Potgieter 2012). Converse et al. (2012) found a strong positive relationship between self-control and positive career outcomes, while Coetzee and Harry (2013) found that emotional intelligence was an important career competence in predicting individual career agility, inter alia, because of enhanced persistence in the face of challenges. Emotional literacy is concerned with emotions on a personal level, whereas emotional intelligence is concerned with emotions that are directed towards the organisation. Both emotional literacy and emotional intelligence have an influence on career competencies and hence employability. Pool and Sewell (2007) found a strong relationship between individual self-esteem and employability.

### Interpersonal attributes

The employability attributes associated with the interpersonal category describe individualities that are of equal importance in the work context as well as in general social interchanges. The interpersonal dimension of employability includes *sociability* and *cultural adaptability*.

*Sociability* is the capacity to initiate and cultivate formal and informal social networks and utilise networks to enhance career prospects (Bezuidenhout & Coetzee 2011; Coetzee 2012; Potgieter 2012). Sociability refers to an openness both to establishing and maintaining social contacts and to utilising formal and informal networks for the advantage of one's career (Bezuidenhout 2011). Sociability is seen as an aspect of an individual's social capital and employability and has been related to perceived career success (Bezuidenhout 2011; Eby, Butts & Lockwood 2003). A lower confidence in one's sociability capabilities gives rise to concern in the light of modern-day work requirements that place a high value on team working and networking skills (Arnau-Sabates et al. 2013; Hinchliffe & Jolly 2011). Alarcon, Edwards and Menke (2011) found that social support was a strong predictor of the ability of individuals to cope with the demands of work.

*Cultural adaptability* encompasses the ability to successfully fit into culturally diverse contexts (Bezuidenhout & Coetzee 2011; Coetzee 2012; Potgieter 2012). Cultural competence includes the capacity to accept and become familiar with the customs, values and beliefs of other cultures, self-confident participation in intercultural exchanges and embracing the notion of cultivating culturally diverse associations (Coetzee 2012; Bezuidenhout & Coetzee 2011; Potgieter 2012). Sociable, culturally and interpersonally competent individuals seem to possess well-developed employability attributes, while individuals who are more deliberate and prefer a well-planned career path seem to possess less well-developed employability attributes (Potgieter & Coetzee 2013). Lloyd and Hartel (2010) suggest that individual intercultural competence may influence individual job satisfaction, trust and affective commitment to the job as well as the individual's assessment of team effectiveness.

### Career attributes

Lastly, the career dimension denotes explicit individual attributes that underlie behaviours allied to career success in the business world (Botha 2014). The career dimension of employability consists of the attributes of *career self-management*, *career resilience* and *entrepreneurial orientation*.

*Career self-management* is the individual capacity to guarantee continued employability through an attitude of lifelong learning, and agentically planning and managing a protean career (Bezuidenhout & Coetzee 2011; Coetzee 2012; Potgieter 2012). Bridgstock (2010) found a strong positive correlation between a highly developed graduate career self-management capacity and career success after graduation. The same study also found a positive link between intrinsic motivation, career success and career management ability.

*Career resilience* is the capacity to be agile in the rigorous work context of the 21st century working world. Agile employees relish change and easily adapt to new work requirements (Potgieter 2012). Well-developed career resilience is positively associated with the effective use of a range of job-seeking strategies as well as with high levels of self-efficacy (Koen et al. 2010; Restubog et al. 2010). According to Lent (2013), career resilience is akin to preparing for life as it is not always possible to foresee all the changes and issues that may impact on continued employment. Restubog et al. (2010) found that high self-efficacy leads to greater career persistence but that the relationship is mediated by improved career decidedness. Koen et al. (2010) found that career resilience positively predicted the willingness and capacity of job seekers to utilise varied job-seeking strategies to secure employment after a period of unemployment.

An *entrepreneurial orientation* denotes those individuals who desire to be innovative and prefer to autonomously manage their careers (Potgieter 2012). An entrepreneurial orientation entails valuing risks as opportunities, a tolerance for ambiguity as well as a preference for innovation, creativity and autonomous action in career management and advancement. Entrepreneurial individuals acknowledge the value of creating something of significance (Potgieter 2012). Potgieter (2012) reported on the existence of a strong relationship between the employability attributes of career self-management, career resilience, sociability and proactivity.

Brown, Hesketh and Williams (2003) indicate that employability, as it is commonly understood, is not necessarily a universally accessible phenomenon. This is the so-called 'consensus theory' of employability. Some authors believe that the drive towards inculcating employability attributes in those that are already privileged may enlarge social inequality because class, ethnic and gender differences in social status may inhibit the development of the required capacities – the 'conflict theory' of employability (Brown et al. 2003). In addition, Brown et al. (2003) indicate that a more inclusive conceptualisation of employability should be considered as relative to the current state of the economy and



consequent availability of jobs in diverse labour markets – a labour market-specific conceptualisation of employability so to speak. The debate aside, in the context of the research reported on in this article, employability is taken to mean the individual capacity to wield personal psycho-social resources to successfully find, maintain or create employment through constant scrutiny of relevant work environments; proactive new competence development and the acquisition and active management of protean careers (Coetzee 2012; Fugate et al. 2004; Van der Heijde & Van der Heijden 2006).

Employability attributes have a positive effect on job performance, individual career prospects and career results (Potgieter 2012; Schreuder & Coetzee 2011). What is unclear, particularly in the South African context, is whether there are significant differences in the employability attributes of diverse age, race and gender groups (Botha 2014). As we cannot assume that the access to opportunities to develop employability as a passport to well-paid jobs is distributed equally across the diverse gender, age and race groups in South Africa, thorough research on employees' employability is vital in order to devise and support human resource management strategies (Coetzee & Schreuder 2008). In a society previously defined by gross inequalities in terms of access to quality higher education and equivalent jobs, and in the light of the debate on the veracity of employability to overcome socio-economic inequalities, investigation of possible discrepancies in employability attributes between different gender, race and age groups has become crucial. According to Moreau and Leathwood (2006) and Morrison (2013), the dearth of research findings on the possible influence of biographic variables on employability affects the current standpoint of employability, and consequently, more research concentrating on biographical variables is needed (Clarke 2008; Themba, Oosthuizen & Coetzee 2012; Williams et al. 2015). According to Gerstein and Friedman (2016), women seem to be better than men at social sensitivity but it is a kind of skill that can be taught. Understanding the diverse career-related needs – including the cultivation of employability attributes – of individuals from different ages or life and career stages and those from different race groups have increased in importance in the light of the multicultural South African work environment (Coetzee & Schreuder 2008). The importance of generic skills in embracing diversity is emphasised by the fact that organisations that are made up of different kinds of people are more creative and productive than those that are homogeneous (Gerstein & Friedman 2016).

## Research design

### Research approach

A quantitative survey method was used in the research study. A questionnaire consisting of a section on biographical data and a section on employability attributes (as developed by Bezuidenhout & Coetzee 2010) were mailed to the sample. The employability attribute scale (EAS) was developed specifically for use in the South African higher education context and measures the required graduate attributes that will ensure continued employment in the 21st century work

milieu. The EAS is a Lickert-type self-report scale consisting of 56 items that are collected into eight subscales namely: career self-management, cultural competence, career resilience, proactivity, entrepreneurial orientation, sociability, self-efficacy and emotional literacy. The scale was electronically scored by adding the responses for each subscale. The individual scores ranged between 30 and 60, with a high score per subscale indicating a highly developed ability in that subscale and a high score for the total scale indicating highly developed employability.

### Research objectives

The aim of the research was to investigate whether gender, race and age groups differ significantly regarding their employability attributes.

### Research method

#### Population and sampling

The total population of the study consisted of approximately  $N = 438\ 055$  adult students currently registered for qualifications in the economic and management sciences field. A stratified, proportional, random sample of  $n = 10\ 500$  adult students from different gender, race and age groups was drawn from the total population. The gender groups consisted of 37.2% males and 62.8% females, the four race groups consisted of 86.3% black people (African), 3.5% mixed race, 2.7% Indians or Asians and 7.4% white people. The ages of the respondents were grouped as follows: 18–25 years (39%), 26–30 years (24.3%), 31–40 years (24.3%), 41–50 years (9.3%) and over 50 years (1.6%). The response rate on the survey was 10.5% and produced  $n = 1102$  useable questionnaires.

#### Statistical analysis

Descriptive, correlational and inferential statistical analyses were used to realise the empirical research objectives. An exploratory factor analysis (EFA) provided confirmation of the construct validity and internal consistency reliability of the EAS (Bezuidenhout & Coetzee 2010). The EFA revealed eight subscales, namely career self-management, cultural competence, self-efficacy, career resilience, sociability, entrepreneurial orientation, proactivity and emotional literacy (Bezuidenhout & Coetzee 2010). The Cronbach's alpha coefficients obtained for each subscale were as follows and met the recommended minimum thresholds: career self-management (0.88), cultural competence (0.89), self-efficacy (0.83), career resilience (0.75), sociability (0.79), entrepreneurial orientation (0.80), proactivity (0.87) and emotional literacy (0.83), demonstrating high internal consistency for the EAS. Inferential statistical analyses (tests for significant mean differences) were performed to determine whether the gender, race and age groups differed significantly in terms of employability. The means for the eight subscales of the EAS ranged between 4.27 and 4.80, with the highest mean score  $M = 4.80$  ( $SD = 0.82$ ) for the subscale career self-management, and the lowest mean score for the subscale sociability ( $M = 4.27$ ;  $SD = 0.92$ ). Skewness for the eight subscales ranged between

0.370 and  $-0.75$ , thereby falling within the  $-1$  and  $+1$  normality range recommended for these coefficients (Salkind 2012). The kurtosis values ranged between 0.051 and 0.584. The means, standard deviations, skewness and kurtosis of the EAS are indicated in Table 1.

Statistical analyses commenced with a test for normality to establish whether parametric or non-parametric procedures should be used to test for significant mean differences followed by tests for significant mean differences. The test for normality indicated that the data were not normally distributed. Consequently, the Mann–Whitney U (gender) and Kruskal–Wallis (race and age) tests were performed to determine the existence of significant mean differences. The indicators of statistical significance used for the multiple regression analyses were as follows:  $F(p) \leq 0.001$ ,  $F(p) \leq 0.01$  and  $F(p) \leq 0.05$  were considered as the cut-off for rejecting the null hypotheses. The Mann–Whitney U test is used to determine whether survey data in one population rank higher than similar data in another population using the median scores of the two samples (Salkind 2012). Although the Mann–Whitney U and Kruskal–Wallis tests are usually used in studies with small sample sizes ( $<100$ ), they were used in this study because of the non-parametric nature of the data (Salkind 2012).

The indicators for interpretation of the magnitude of the practical significance of the results were the following: adjusted  $R^2 \leq 0.12$  (small practical effect size),  $R^2 \geq 0.13 \leq 0.25$  (moderate practical effect size) and  $R^2 \geq 0.26$  (large practical effect size). Because more than one of the variables of the EAS were utilised in the analyses, the value of adjusted  $R^2$  was used to interpret the results. In addition, because a high level of correlation between independent variables raises concerns about multicollinearity, which may create challenges in

interpreting the beta coefficients as meaningful, collinearity diagnostics were employed in order to confirm that zero-order correlations were below the level of concern ( $r \geq 0.80$ ), that the variance inflation factors did not exceed 10, that the condition index was well below 15 and that the tolerance values were close to 1.0 (Salkind 2012).

## Results

### Gender

The results of the Mann–Whitney U test (gender) indicated that male respondents ( $M = 32.50$ ) scored higher than female respondents ( $M = 31.48$ ) on the EAS with regard to proactivity ( $p = 0.014$ ; ETA-squared = 0.01; small practical effect) and entrepreneurial orientation (males:  $M = 32.67$ ; females:  $M = 32.01$ ) ( $p = 0.03$ ; ETA-squared = 0.003) variables. Conversely, the female participants ( $M = 26.48$ ) achieved a higher score than the male participants ( $M = 25.88$ ) on the EAS with regard to career resilience variable ( $p = 0.053$ ; ETA-squared = 0.003; small practical effect). It is, however, only with regard to proactivity that the difference between male and female is of significant value. The results are illustrated in Table 2.

### Race

The results of the Kruskal–Wallis test show that the Indian respondents achieved relative higher scores than the other race groups on cultural competence (Indian = 23.69;  $p = 0.002$ , ETA-squared = 0.012; small practical effect) and sociability (Indian = 29.49;  $p = 0.05$ , ETA-squared = 0.005; small practical effect) variables. In addition, the white participants scored relatively lower on cultural competence (white people = 19.85;  $p = 0.002$ ; ETA-squared = 0.012; small practical effect) and sociability (white people = 27.84;  $p = 0.047$ , ETA-squared = 0.005; small practical effect) variables. The results are illustrated in Table 3.

### Age

The results of the Kruskal–Wallis test indicated that the participants aged between 41 and 50 achieved considerably lower scores compared to the other age groups on the self-efficacy variable ( $M = 27.53$ ;  $p = 0.03$ ; ETA-squared = 0.01; small practical effect). Conversely, the participants older than 50 scored considerably higher than the other age groups on the same variable ( $M = 28.94$ ;  $p = 0.03$ ; ETA-squared = 0.01; small practical effect). The results are illustrated in Table 4.

**TABLE 1:** Means, standard deviations, skewness and kurtosis of the employability attribute scale.

Construct	Mean	Std. deviation	Skewness	Kurtosis
Career self-management	4.80	0.82	-0.746	0.585
Cultural competence	4.38	1.06	-0.370	-0.498
Self-efficacy	4.81	0.79	-0.701	0.447
Career resilience	4.46	0.87	-0.470	0.284
Sociability	4.27	0.92	-0.374	-0.064
Entrepreneurial orientation	4.69	0.77	-0.558	0.165
Proactivity	4.65	0.86	-0.546	0.051
Emotional literacy	4.55	0.88	-0.480	-0.032

**TABLE 2:** Differences in employability attributes with regard to gender.

Employability attributes	Mann–Whitney U	Z	Asymp. Sig. (2-tailed)	ETA-squared	Means	
					Male (n = 409)	Female (n = 690)
Career self-management	120423.000	-0.769	0.442	0.001	52.155	51.455
Cultural competence	120145.000	-0.361	0.718	0.000	21.712	21.504
Self-efficacy	122049.000	-0.264	0.792	0.000	28.284	28.234
Career resilience	114986.000	-1.938	0.053	0.003	25.879	26.477
Sociability	122466.500	-0.311	0.756	0.000	29.470	29.187
Entrepreneurial orientation	115838.000	-1.620	0.105	0.003	32.677	32.011
Proactivity	112926.500	-2.463	0.014*	0.005	32.499	31.482
Emotional literacy	120840.500	-0.165	0.869	0.000	31.290	31.251

Note: ETA-squared value of  $\leq 0.08$  is small in practical effect. ETA-squared value of  $\geq 0.09 \leq 0.24$  is moderate in practical effect. ETA-squared value of  $\geq 0.25$  is large in practical effect.

\*,  $p \leq 0.05$ ; \*\*,  $p \leq 0.01$ ; \*\*\*,  $p \leq 0.001$ .

The results provide evidence to support the research objectives – gender, age and race groups differ significantly with regard to employability attributes. Table 5 summarises the findings and indicates which groups scored the lowest and highest on the various employability attributes.

## Discussion and recommendations

The male and female participants in this study differed considerably in their employability attributes, with significant differences found in entrepreneurial orientation, proactivity and career resilience. The male participants appear to be more entrepreneurially oriented and proactive, while the female participants are apparently more resilient in their careers. As Potgieter (2012) found a strong relationship between career self-management, career resilience, sociability and proactivity, it seems that organisational career management support should focus on cultivating career resilience in male employees and proactivity in female employees.

Race relates significantly to the cultural competence and sociability of individuals and different race groups appear to differ considerably regarding these attributes. Interestingly, the white participants scored considerably lower on both cultural competence and sociability, yet these two

employability attributes are closely related to career self-management. It seems that organisations could focus on cultivating these two attributes in their white employees.

The older than 50 years age group obtained the highest mean score on self-efficacy, with the age group of 41–50 years obtaining the lowest mean score. The reasons for the low mean score of the 41–50 years age group cannot be determined, but may have been caused by factors such as multiple life roles. Organisations may benefit from cultivating the self-efficacy of their employees in this age range. The high mean score of the older than 50 years age group provides a caution to employers. As the older participants appear to be stronger in self-efficacy, older employees should not be overlooked when training and development opportunities are provided in organisations, because older employees will probably be more successful in their development endeavours.

Although the dearth of current, South African research precluded the drawing of definite conclusions regarding any relationships between socio-biographical elements such as age, race and gender and employability as a holistic concept, this study highlighted the significant differences between

**TABLE 3:** Differences in employability attributes with regard to race.

Employability attributes	Chi-square	Df	Asymp. sig. (2-tailed)	ETA-squared	Means			
					A (n = 948)	M (n = 39)	I (n = 30)	W (n = 82)
Career self-management	3.979	3	0.264	0.002	51.789	49.513	52.897	51.215
Cultural competence	14.659	3	0.002**	0.012	21.676	21.368	<b>23.690</b>	19.848
Self-efficacy	0.343	3	0.952	0.000	28.215	28.500	28.552	28.367
Career resilience	3.614	3	0.306	0.004	26.204	25.718	28.276	26.127
Sociability	7.968	3	0.047*	0.005	29.452	28.077	<b>29.488</b>	27.835
Entrepreneurial orientation	0.889	3	0.828	0.000	32.237	32.105	32.690	32.304
Proactivity	2.178	3	0.536	0.002	31.918	30.385	32.345	31.633
Emotional literacy	0.114	3	0.990	0.000	31.249	31.605	31.414	31.190

A, Africans; M, mixed race; I, Indians; W, white people.

Note: ETA-squared value of  $\leq 0.08$  is small in practical effect. ETA-squared value of  $\geq 0.09 \leq 0.24$  is moderate in practical effect. ETA-squared value of  $\geq 0.25$  is large in practical effect. The values in bold represent *p*-value.

\*,  $p \leq 0.05$ ; \*\*,  $p \leq 0.01$ ; \*\*\*,  $p \leq 0.001$ .

**TABLE 4:** Differences in employability attributes with regard to age.

Employability attributes	Chi-square	Df	Asymp. sig. (2-tailed)	ETA-squared	Age (means)				
					18–25 (n = 413)	26–30 (n = 251)	31–40 (n = 252)	41–50 (n = 101)	>50 (n = 18)
Career self-management	5.873	4	0.209	0.007	51.077	52.864	51.861	50.926	54.056
Cultural competence	1.637	4	0.802	0.002	21.652	21.668	21.340	21.848	20.556
Self-efficacy	10.521	4	0.033*	0.010	27.860	28.936	28.640	27.526	28.944
Career resilience	1.247	4	0.870	0.003	26.098	26.739	26.025	26.221	26.278
Sociability	2.894	4	0.576	0.003	29.058	29.715	29.407	28.684	31.111
Entrepreneur orientation	3.888	4	0.421	0.003	32.029	32.744	32.496	31.989	32.333
Proactivity	5.172	4	0.270	0.007	31.301	32.574	32.189	31.821	32.778
Emotional literacy	2.520	4	0.641	0.003	30.898	31.517	31.548	31.641	32.389

Note: ETA-squared value of  $\leq 0.08$  is small in practical effect. ETA-squared value of  $\geq 0.09 \leq 0.24$  is moderate in practical effect. ETA-squared value of  $\geq 0.25$  is large in practical effect.

\*,  $p \leq 0.05$ ; \*\*,  $p \leq 0.01$ ; \*\*\*,  $p \leq 0.001$ .

**TABLE 5:** Differences between the gender, race and age groups in terms of employability variables.

Variable: Employability attributes	Gender		Race		Age	
	Highest	Lowest	Highest	Lowest	Highest	Lowest
Career resilience	Females	Males	-	-	-	-
Cultural competence	-	-	Indians	White	-	-
Self-efficacy	-	-	-	-	>50	41–50
Sociability	-	-	Indians	White	-	-

various gender, race and age groups in the subscales of the employability attributes framework of entrepreneurial orientation, proactivity, career resilience, cultural competence, sociability and self-efficacy. The study makes a further significant contribution as being the first South African study to zoom in on the investigation of possible differences in employability attributes as defined by the employability attributes framework between various socio-biographical groupings.

The current emphasis on employability implies that tertiary institutions and workplace learning professionals should rethink both their programme content and their teaching or training methods (Boden & Nedeva 2010). The use of learning goals or outcomes that require the measurement of learner's learning performance instead of the memorisation of factual knowledge must be a priority for all tertiary institutions if they are to prove their effective and efficient utilisation of public funds (Boden & Nedeva 2010). In the current, turbulent, unpredictable working environment in which full-time employment for life is no longer guaranteed, it is essential that all employees develop generic skills that are transferable to the world of work (Ehiyazaryan & Barraclough 2009; Morrison 2013).

Employees are required to understand both their job responsibilities and also the organisational setting of their jobs. In addition, employees should appreciate and be able to function successfully within the organisational culture. A thorough understanding of the organisation's philosophy, values and norms is built through both formal and informal workplace learning and development (Billet 2010; Slev & Pop 2012). Employees who are involved in interesting and inspiring work think of themselves as being more employable (Berntson, Näswall & Sverke 2008; Van Emmerik 2012).

The purpose of training and development within the organisation is the provision of learning and development opportunities that broaden and deepen employee competencies for optimal performance of both current and future job tasks. In this way, the organisation hopes to ensure a competitive advantage by increasing the value which employees add to the organisation and also by developing employee adaptability (Coetzee & Schreuder 2013; Du Toit, Erasmus & Strydom 2010).

Training and development include both formal and informal workplace learning opportunities. The focus of such training and development is increased capacity and performance on the part of employees with its concomitant benefit for the organisation (Cameron & Harrison 2012; Coetzee & Schreuder 2013). Training and development is associated with employability in organisations because of its focus on goal-driven employee training and development in order to enrich organisational dexterity. Specific dispositional traits in employees, such as openness (being willing and eager to accept changes and new ideas), are positively associated with employability and may be used to predict the success of training interventions (Van Dam 2004).

## Limitations and conclusions

The demographic confines of the research study preclude the generalisation of the findings to the wider population of working people. The sample consisted only of adult, majority employed, students participating in open distance higher education in one South African university. The small percentage of South Africans who enrol for tertiary education indicates that the findings cannot be generalised to include the wider public of South Africans. As the sample reflected the student profile of the academic institution at the time of the study, the participants were mostly black women enrolled for undergraduate qualifications in the economic and management sciences field. Consequently, the research findings cannot be generalised to the wider occupational, gender and race contexts in South Africa. In addition, because of the self-reporting methodology used for gathering the data, the possibility of common method bias cannot be ignored. Lastly, because of the dearth of available reported research on the possible socio-biographical differences in employability attributes both locally and globally, a comparison could not be made with other published research.

Nevertheless, these research findings on the possible socio-biographical differences between various gender, race and age groups are the only ones known of to report on socio-biographical differences in employability attributes in South Africa. As differences were found between the various gender, race and age groups on a number of employability attributes in the employability attributes framework (Bezuidenhout & Coetzee 2011), more research on the socio-demographic differences that may influence the cultivation of employability attributes in various socio-biographical groupings is called for. This research is of particular importance in the business environment in order to ensure that previously disadvantaged individuals are not further marginalised because of a lack of employability attributes or insufficient opportunity to cultivate the required employability attributes to ensure development and success in the work place.

Conversely, although differences do exist between the various groups in terms of employability, many factors such as job context, culture of the organisation, willingness of the organisation to support training and the transfer of learning to the workplace could have an influence on employees' employability. Organisations would thus reap the benefits by implementing strategies that could enhance attributes of employability by focusing on specific attributes of employability amongst the various race, gender or age groups.

## Ethical consideration

Ethical clearance was obtained to conduct this research.

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### Competing interests

The authors declare that they have no financial or personal relationships that may have inappropriately influenced them in writing this article.



## Authors' contributions

Both authors worked on all aspects of the article such as the literature, research methodology, reporting of results and so on.

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