

Leading towards the students' career development and career intentions through using multidimensional soft skills in the digital age

Naimatullah Shah

College of Business Administration, Al Yamamah University, Riyadh, Saudi Arabia

Safia Bano

Institute of Management Sciences, University of Balochistan, Quetta, Pakistan

Ummi Naiemah Saraih

Faculty of Business and Communication, Universiti Malaysia Perlis (UniMAP), Kangar, Malaysia;

Centre of Excellence for Social Innovation and Sustainability, Universiti Malaysia Perlis (UniMAP), Kangar, Malaysia and

Department of Business Administration, Daffodil International University, Dhaka, Bangladesh

Nadia A. Abdelmegeed Abdelwahed

Department of Business Administration, College of Business Management, King Faisal University, Al-Ahsa, Saudi Arabia, and

Bahadur Ali Soomro

Centre of Excellence for Social Innovation and Sustainability, Universiti Malaysia Perlis (UniMAP), Kangar, Malaysia

Abstract

Purpose – In the digital age, the development of students' career intentions requires serious concentration since these are associated with the students' future employment and, ultimately, their survival. This study attempted to demonstrate in Pakistan's Higher Educational Institutes (HEIs) the role of soft skills towards the students' career development (CD) and their future career intentions (CI).

Design/methodology/approach – In this study, the researchers used a quantitative approach and a questionnaire to collect the data from the surveyed participants. Finally, the researchers based this study's findings on 392 useable samples.

Findings – By employing the structural equation model (SEM), this study's findings show that soft skills, such as Creative Self-Efficacy (CSE), Problem-Solving Confidence (PSC) and Teamwork (TW) have a positive and significant effect on CD and CI. However, while Critical thinking and Creativity (CRC) has a positive and significant effect on CD, it has no effect on CI. In addition, this study's findings confirm, also, that CD has a positive and significant effect on CI.

Practical implications – This study's findings assist policymakers and university administrators to understand the importance of soft skills in creating CD and CI. These promote the development of employability skills and fulfill its part in preparing graduates for the unpredictable job market. This study's findings help, also, to develop logical reasoning in making decisions and in dealing with complex organizational issues.

Originality/value – In a practical way, in Pakistan, this study's findings confirm the role of soft skills towards students' CD and CI.

Keywords Soft skills, Career development (CD), Digital technology, Career intentions (CI), Digital age

Paper type Research paper



Introduction

More particularly, among university graduates, the chance of having a professional career and inclinations toward a vocation has become a serious problem to society in the digital age (Ahmad *et al.*, 2021a, b). Significant indicators of students' success are tenacity of commitment, career ambitions and career preparations. Career objectives are the primary drivers of career intentions (*CI*) which help people to establish their cultural orientations and epochs (Kemp and McLoughlin, 2022). Self-initiative and the focus on one's career are crucial elements of entrepreneurship since these provide a smooth path to the individual's development and success (Baluku *et al.*, 2018). There are several factors, such as employability culture and employee mentorship, that have an impact on the avenues of career plans which lead to prodigious careers (Wong *et al.*, 2017). More importantly, as career traits, soft skills are responsible for developing the individuals' attitudes towards career development (*CD*) and *CI* through enriching leadership skills, communication skills, a positive work attitude and teamwork (*TW*). In the business sector, soft skills are critical for grooming individuals to be involved in business and market expectations (Nusrat and Sultana, 2019). However, in the education sector, the lack of further upgrading caused high unemployment among graduates (Seetha, 2014).

In the literature, soft skills are proven to be the protagonist enablers and innovative tools that improve employability (Rao, 2014; Tejan and Sabil, 2019; Succi and Canovi, 2020) and accountability, management, listening and communication (Desha *et al.*, 2021). However, soft skills, which include critical thinking, business negotiation, responsibility and marketing, can be developed in educational institutes (Ahmad *et al.*, 2017; Ayodele *et al.*, 2021). According to Singh and Jaykumar (2019), employable or soft skills are a better way to inform graduates about the capabilities which they can acquire during their degree programs. Unlike graduates and managers, these abilities help to develop graduates' soft skills. Across all age groups, soft skills are the leading agents of professional engagement (Aryani *et al.*, 2021) and are enhanced by training. Self-efficacy and confidence allows the individual to choose career management skills that meet their professional development objectives (Getachew *et al.*, 2020). In addition, Problem-Solving Confidence (*PSC*) increases an individual's *CD* and *CI* (Aryani *et al.*, 2021). Soft skills in *TW*, creativity and communication are important indicators of employment status (Forrest and Swanton, 2021). Khalid and Ahmad (2021) claim that there is a meaningful relationship between career flexibility and students' employability skills in complex *PSC*, Critical Thinking and Creativity (*CRC*) and people management. *PSC* and *CRC* increase individuals' capabilities and lead them to success (Baird and Parayitam, 2019). Likewise, career coaching in programs develops the *CRC* and in higher education enables predictor to creativity and innovation (Forrest and Swanton, 2021). Finally, *TW* is the best predictor of performance and employment status and, among most real soft skills, makes a substantial impact on students' *CD* and *CI* (Tang, 2020).

Consequently, due to their vital contribution to students' *CD* and *CI*, the researchers cannot ignore the importance of soft skills (Volkov and Volkov, 2015). These skills usually come through either university or higher education. Therefore, the researchers asked the following questions:

How do soft skills, in terms of *CSE*, *PSE*, *CRC* and *TW*, enhance the *CD* and *CI* among Pakistan's university students?

How is *CD* responsible for developing *CI* among Pakistan's university students?

The researchers considered that this study's findings would help policymakers and university authorities to develop the students' soft skills to tackle unemployment and their future career challenges. This study's findings would open, also, new avenues and, through nurturing soft skills in *CSE*, *PSE*, *CRC* and *TW*, set the individuals' *CI* towards making their

futures bright t. With the introduction being section one of this paper, the other sections are as follows. Section two is the literature review and the formulation of this study's hypotheses. Section three explains this study's methods. Section four sets out the data analysis. Finally Section five sets out discussion and conclusion, the limitations and the recommendations for future research.

Literature review and the formulation of this study's hypotheses

Soft skills

In the digital age, soft skills are valuable and innovative tools to improving employability (Rao, 2014). Employers place a high value on soft skillsets related to accountability, management, listening and communication, logical thoughts, business negotiation and work ethics. These abilities are taught face-to-face and include, also, critical thinking, business negotiation, responsibility and marketing (Ahmad *et al.*, 2017; Ayodele *et al.*, 2021). However, there are substantial deficiencies in respect of graduate personnel's technical capabilities such as valuation, property investment analysis, feasibility and viability appraisal, market research methods and facility management (Ayodele *et al.*, 2020). More particularly, in Malaysian universities, the curriculum fosters soft student skills and promotes the link between soft skills and student job readiness. The findings show, also, that, when compared to respondents from Chinese universities, respondents from Malaysian universities were more likely to respond positively to statements about their respective universities' abilities to develop their soft skills (Teng *et al.*, 2019). On the other hand, Spanish university students, who participate in more leisure activities, exhibit higher levels of creativity. Most students are involved in some activities, and in this regard, two interpersonal skills are essential (Mareque *et al.*, 2019). According to Singh and Jaykumar (2019), soft or employable skills for the hospitality sector offer insightful information from employers and help the graduates to acquire those abilities during their degree programs. Graduates and managers describe differently their use tools to develop the graduates' soft skills. It has become clear that Italian and German businesses evaluate soft skills very differently during the hiring process (Succi and Wieandt, 2019). Faculty and recruiters have different opinions about the importance attached to the four soft skills. Therefore, there is a need for greater clarity between the business curriculum and the employers' requirements from recently graduated business students (Nusrat and Sultana, 2019). Ibrahim *et al.*'s (2017) findings show the connections between employees' development of soft skills, the trainer's training approach and job performance. The method of training and the acquisition of soft skills are significant predictors of employee performance. Information professionals consider their soft skill levels to be "moderately proficient" despite the development of their soft skills being hampered often by the university library and information workers' "lack of administrative assistance"; "lack of personal commitment" and "lack of financial support" from the parent organizations (Ahmad *et al.*, 2021a, b).

According to Bak *et al.* (2019), behavioral skills, such as communication, planning, initiative and bargaining, are more critical than decision-making, negotiating and management skills. In the case of Malaysian students, their college lives have been improved significantly through their integration of soft skills. The quality of all aspects of college life, including academics, social life and facilities, is greatly enhanced by students integrating soft skills and, more particularly, those promoting critical thinking and problem-solving (Tan *et al.*, 2019). However, in Vietnam, the provision of opportunities, such as those connected to independent work, interpersonal interactions and the capacity to work in international environments, to help the students develop their soft skills is thought to improve their employability (Yao and Tuliao, 2019). In a similar vein, more than half of the participants reported that there were few possibilities for soft skills training and ongoing

professional development (Ahmad *et al.*, 2021a, b). However, the designers', programmers' and testers' soft skill needs are quite consistent across various contexts, including those in North America, Europe, Asia and Australia. Cultural differences are apparent only in the case of system analysts (Ahmed *et al.*, 2012). According to Thailand's students, entrepreneurial role models indirectly influence their entrepreneurial skills (Rajchamaha and Prapojanasomboon, 2022). In Hong Kong, Ng *et al.*'s (2021) findings suggest that the development of young graduates' employability skills can develop their professional development, entrepreneurship attitudes, communication and problem-solving and self-management. Among Russian university students, there is a positive and significant connection between participation in case competitions and career decision-making self-efficacy (Plakhotnik *et al.*, 2020).

Career development (CD)

A CD culture helps productivity, competition, affirmative action and succession planning. A regulated CD culture can benefit both the company and the employees (Conger, 2002). According to Lee and Lee (2018), organizational commitment and job satisfaction are critical personal characteristics that influence job performance through CD. Although organizational factors, such as mentorship and coaching, have an impact, work rotation hinders, also, the enhancement of job performance through CD. There are close relationships between development programs, career management and performance. CD increases when employees and senior executives own a significant percentage of a company's total shares. Employees' CD is enhanced by the availability of external education and continuous professional development (Pinnington *et al.*, 2022). Although they operate in different ways, mentors and mentees are both complimentary about the mentoring program. However, women's CD can be impeded frequently by their self-attitudes, gender values and management and leadership perceptions (Maxwell, 2009). According to Okolie *et al.* (2020), in the case of Nigeria, when combined with mentoring, career training can improve students' clarity about their career ambitions, interests, personal development plans and employability. In Australia, undergraduate students are interested in computer technology as it boosts CD and employability (McKenzie *et al.*, 2018). The manner, in which managers approach CD techniques, can shift in response to a vital nuance (Cullen, 2013). The organizational-related factors, such as mentoring and employability culture, are possible predictors of a flexible career.

Career plans significantly moderate the association between employability culture and employee mentorship leading to prodigious careers (Wong *et al.*, 2017). Self-regulation serves as a mediator between CD and employee productivity. According to Delbari *et al.* (2021), the members of staff's abilities to self-regulate have a favorable and significant impact on the factors that affect individual, organizational and environmental productivity. Self-regulation may be able, also, to anticipate those elements. In the United Arab Emirates, the progressive, reasonable, facilitated and idealistic CD is essential for women's CD among managers (Omair, 2010). In addition, the CD has a significant impact on effective devotion in a family business. Similarly, the degree of mastery of goal orientation and support for CD, namely the students' aptitude to be adaptable, has a significant influence on their self-efficacy and, in turn, their career decision-making (Park and Park, 2020).

Career intentions (CI)

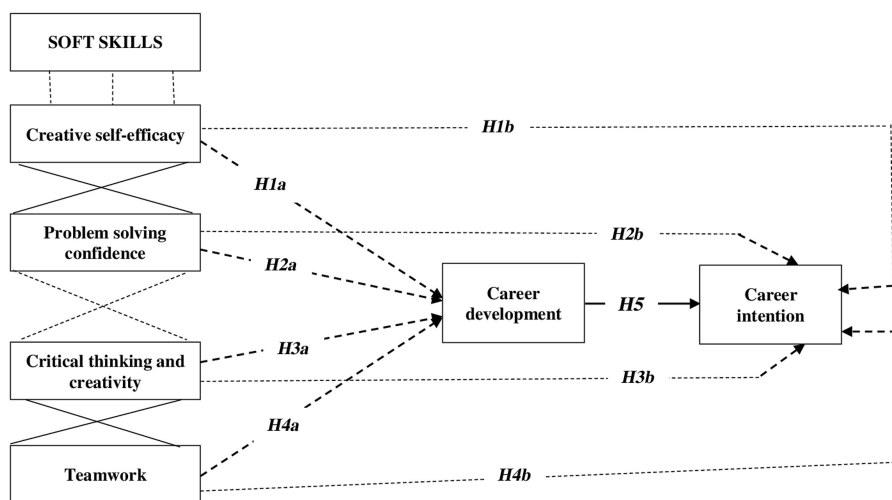
The CI represent the likelihood of a career shift and the associated predictive factors among those looking for new jobs. Men and women, individuals with different family responsibilities and those on permanent and temporary contracts all share the same devotion to their careers and the purpose of staying in the field. Among undergraduate students, there is a strong

correlation between flexibility and career direction and emigrating abroad. However, the path of mediation has no significance. *CI*'s main enhancers are social obligations and career goals. According to Kemp and McLoughlin (2022), *CI* contributes to the development of cultural orientation and millennial characteristics. On the other hand, there is a significant mediation path between the crucial factors of self-initiative and focusing on one's career and entrepreneurship (Baluku et al., 2018). Self-efficacy plays a substantial mediating role between perceived organizational support and external whistleblowing intents. Similarly, students, who have histories of family business, are substantially more likely to join their family businesses than to start their own businesses (Cieslik and van Stel, 2017). The perception of informal organizational career management has a considerable negative direct and indirect impact on turnover intentions. Only the indirect effects on perceived formal administrative career management are significant (Haridas et al., 2022). Similarly, accounting students are optimistic about expanding their knowledge base and obtaining an accounting job. Education in business and entrepreneurship impacts on career planning and personal growth beyond just wanting to start new businesses (Rae and Woodier-Harris, 2013). Entrepreneurial awareness enhances Entrepreneurial Intentions (*EI*). The new courses in digital technology and the teachers' instructive employability skills improve students' opportunities of self-employment (Zinser, 2003). According to Daniel and Almeida (2020), students, who participate in junior enterprises, have higher levels of *EI* and their antecedents, such as behavioral attitudes, perceived behavioral control and social norms. The impact of this extracurricular activity is more profound on engineering students rather than social sciences students.

Consequently, the literature offers several factors that are valuable predictors in developing *CD* and *CI* among the several sectors (Bak et al., 2019; Kemp and McLoughlin, 2022; Haridas et al., 2022). These factors include behavioral control, attitudes toward digital entrepreneurship, employability, career management, optimistic knowledge, social obligations, career goals, cultural orientation and behavioral skills, such as initiative, bargaining, communication and planning, decision-making, negotiation and management skills. However, there are still significant gaps in the literature. First, no previous study provides evidence of the connection between soft skills, *CD* and *CI* in an integrative way. Second, there is no confirmation of the association between *CD* and *CI* in the presence of soft skills such as *CSE*, *PSC*, *CRC* and *TW*. Finally, despite being in the digital era, more needs to be done by Pakistan's Higher Educational Institutes (*HEIs*) in these areas. Therefore, in recognition of these deficiencies among Pakistan's university students and based on these relationships, the researchers developed the model (Figure 1).

Creative self-efficacy (CSE), career development (CD) and career intentions (CI)

Soft skills have a beneficial impact on psychological capital which leads to increased professional engagement across all age groups (Aryani et al., 2021). A strong correlation exists between skill improvement before and after training. After receiving soft skill training, students are better equipped to identify their areas for professional development. The setting of professional development goals and receiving training in career management skills are all essential components of the development of soft skills (Getachew et al., 2020). Accordingly, Maria et al.'s (2022) quantitative analysis shows that transformational leadership and *CSE* have a strong influence on staff creativity. In addition, self-efficacy is a mediator in developing the relationship between transformational leadership and worker creativity. There is a positive correlation between occupational self-efficacy and work engagement and the climate of developing human resources and the favorable impact on women's career goals in the workplace (Hartman and Barber, 2020). Chen's (2016) findings show that there is a positive association between *CSE* and work engagement. Nevertheless, they did not find



Source(s): Developed by the researchers

Figure 1. Conceptual model of the study

evidence of openness to experience having a moderating role in this relationship. In addition, their findings show that there is no statistically significant difference in CSE and job engagement between men and women. However, the findings demonstrate that, compared to women, men have statistically more significant professional aspirations. Other than workplace social support, Sarkar's (2022) seminal work supports the favorable and significant effects of family support, mentorship support, networking and visible assignment on the overall self-efficacy of women leaders (2022). Similarly, among nurses, leadership self-efficacy and motivation to lead impact upon their career goals (Cziraki et al., 2018). Moreover, the production of direct and indirect knowledge production capacity through personal affective commitment and CSE is a strong predictor of supervisory-rated inventive performance (Sarwat and Abbas, 2021). Peers, who support entrepreneurship, improve this link which moderates the association between creativity and entrepreneurial goals. Entrepreneurial self-efficacy (ESE) mediates this relationship.

According to Drnovšek et al. (2010), the best way to understand ESE is as a multidimensional construct of goal and control beliefs and propositions on how these two dimensions function throughout the different stages of the process of launching a new business. Through the partly mediating influence of entrepreneurial outcome expectancies, there is a positive correlation between ESE and entrepreneurial ambitions (Santos and Liguori, 2020). According to Sidratulmunthah et al. (2018), the main determinants of female students' aspirations to start their own businesses are a proactive personality, ESE and university support factors. Among French students, ESE impacts on EI. Moreover, ESE moderates to some extent the association between a proactive personality and female students' entrepreneurial goals. According to Sweida and Reichard's (2013) conceptual analysis, high-growth CSE can promote women's desires to establish high-growth ventures. In the case of Chinese students, there are links between CSE and growth- and independence-oriented ambitions (Shi et al., 2020). Self-efficacy has the most significant mediation impact in terms of identifying opportunities. Through boosting CSE, the findings of a further pertinent study contend that there is appositive correlation between creativity and corporate goals. Women's ESE reinforces the association between institutional support, entrepreneurial

knowledge and venture performance ([Abdelwahed et al., 2022a, b](#)). Therefore, the researchers formulated the following hypotheses:

H1a. CSE enhances students' CD.

H1b. CSE enhances students' future CI.

Problem-solving confidence (PSC), career development (CD) and career intentions (CI)

Regardless of the impact on performance, *PSC* has an excellent reputation for improving *CD* and *CI*, and people view the mastery of soft skills as a source of efficacy ([Aryani et al., 2021](#)). There are strong correlations between, on the one hand, verbal communication, self-reported *PSC*, creativity, *TW* and employment status and, on the other hand, output, hourly pay and employment status ([Forrest and Swanton, 2021](#)). *PSC* includes a greater understanding of the value of accurate and pertinent information; a greater appreciation of the various roles played by professional practitioners in problem-solving depending on the type of problem; and a greater understanding of the value of interdisciplinary teams in tackling complex and challenging issues ([Desha et al., 2021](#)). According to [Park and Park \(2020\)](#), career decision-making self-efficacy influence, also, their aptitude for engineering and career adaptability in a favorable way. Finally, among Korean engineering students, the student's enthusiasm for engineering benefited their capacity for job adaptation.

[Khalid and Ahmad's \(2021\)](#) findings demonstrate that among final year part-time United Arab Emirates students, there is a significant correlation between, on the one hand, the employability abilities of complex *PSC* and people management and, on the other hand, career flexibility. Individuals' capabilities are enhanced by critical thinking and problem-solving abilities; these include listening skills, oral and written communication skills, professionalism and an internal drive for success ([Baird and Parayitam, 2019](#)). According to [King \(1994\)](#), an exercise, which allows participants to compare their real thinking and problem-solving attitudes and behaviors in profession choice, training and other situations, follows a heuristic pattern of user-friendly self-discovery in Kosovo, and business managers are taught how to handle conflicts and be entrepreneurial. There exists a positive and statistically significant link between forcing style and *EI*. A manager spends a significant amount of time dealing with decision-making and problem-solving difficulties. Making decisions and addressing problems together can help to create a more comprehensive framework for managing problem-solving challenges ([O'Loughlin and McFadzean, 1999](#)). [Wu et al.'s \(2021\)](#) findings show that, while it is essential to navigate the interface to capture the users' full attention and control for problem-solving, the visual appeal contributes to their enjoyment.

According to [Ayalew and Zeleke's \(2018\)](#) empirical analysis, information and opportunity seeking, creativity and problem-solving abilities are significant predictors of students' self-employment and *CI*. The relationship between academic aptitude and self-perceived problem-solving skills is essential for determining academic performance. Therefore, the researchers formulated the following hypotheses:

H2a. PSC enhances students' CD.

H2b. PSC enhances students' future CI.

Creative thinking and creativity (CRC), career development (CD) and career intention (CI)

The *CRC* has a significant impact in introducing career coaching into programs that train students in creativity and innovation in higher education. There is a correlation between, on the one hand, high performance, hourly pay and employment status and, on the other hand, with verbal and creative communication skills ([Forrest and Swanton, 2021](#)). In the same

dimension, assessment design enhances students' critical thinking in a subject concerned with business enterprise systems (Wilkin, 2017). The success of new ventures is influenced greatly by entrepreneurs' abilities to think creatively. Entrepreneurs, who fit the "creative constructionist" description have higher professional success in terms of their firm's creative performance, personal career accomplishments, reputation in society, and a sense of fulfillment and contentment. Similarly, Tejan and Sabil's (2019) findings show that most respondents viewed creativity and innovation as essential employability qualities. Self-efficacy, opportunity detection skills, inventiveness, perseverance, risk-taking tendency, planning skills and leadership qualities all have a positive and significant on the growth of an entrepreneur's career (Zainal, 2022). Graduates' managerial abilities are crucial factors when starting a successful career in marketing (Kelley and Bridges, 2005). In a similar vein, career exploration serves as a mediator in the development of the association between thinking patterns and challenges in making professional decisions among Chinese college students (Li and Fan, 2017).

High degrees of abstraction have a substantial impact on emotional intelligence and the interaction with self-efficacy (Bazzy *et al.*, 2019). Male rather than female participants are more aware of the "think entrepreneur–think male" bias because a woman entrepreneur seems less approachable (or more counter-stereotypical) to male participants. Smith *et al.*'s (2016) findings show that there is a direct and positive relationship between creativity and *EI*. There is only a positive correlation between *EI* and a predisposition to take risks. Curiously, academic creativity is reported to encourage a more conservative approach to risk-taking. However, artistic creativity tends to improve *EI* (Altinay *et al.*, 2022).

Consequently, the literature indicates in several ways the importance of *CRC* shaping future entrepreneurial *CI* careers. However, in the context of Pakistan, further research is required to substantiate these contributions and, more especially, among university students. Therefore, the researchers formulated the following hypotheses:

H3a. CRC enhances students' CD.

H3b. CRCS enhances students' future CI.

Teamwork (TW), career development (CD) and career intentions (CI)

Soft skills, such as *TW*, leadership and communication skills, are seen as character traits for the job that people should possess (Seetha, 2014). Academics use cooperative learning exercises in the curriculum to teach students the value of working well with others in their future careers (Volkov and Volkov, 2015). Forrest and Swanton's (2021) findings demonstrate that *TW* is the best predictor of performance and employment status. Professors have learnt from all four programs that, except for tourist management, the most effective soft skills are *TW* and a commitment to lifelong learning. This study's qualitative section indicates that the acquisition of soft skills has a significant and favorable impact on students' *CD* and enrichment (Tang, 2020). University students are successfully acquiring or improving *TW* through various extracurricular activities such as sports, music, volunteering, international group work experiences and professional practice (Riebe *et al.*, 2010). Similarly, Majid *et al.*'s (2019) findings show that, in Singapore, soft skills are optimal for a productive, successful and enjoyable career and for job hunting. The students are completely aware of the importance of soft skills to their *CD* and employability. The top soft skills are *TW*, collaboration, decision-making, problem-solving, time management and critical thinking (Dabke, 2015). Among the highly evaluated soft skills are a positive attitude, vocal communication, self-motivation and self-direction and problem-solving. Globally, workplace competitiveness is increased by developing talents such as effective communication, *TW*, leadership traits, stress management, emotional intelligence, etc. Soft skills are crucial to creating a bright career

(Tripathy, 2020). According to Majid *et al.* (2012), most respondents believe that both their *CD* and social interactions benefited from having soft skills. They do not believe, however, that these abilities have a significant impact on their academic achievement.

Although the students have demonstrated a great understanding of the value of soft skills, Itani and Srour's (2016) quantitative study findings suggest that some of these perceptions stem from their professional objectives. Similarly, Gloria *et al.*'s (2015) findings assert that working conditions have a significant influence on employees' intentions to change careers. HEIs educating students on the importance of soft skills helps them to take ownership of their learning and to develop these essential job-search capabilities (Succi and Canovi, 2020).

Consequently, *TW* has an excellent reputation for enhancing organizational performance, *CD* and, as a robust developer of trust, leads individuals towards more options in respect of their *CI*. However, in Pakistan, despite their incredible significance in building careers and commitments, there is a need to investigate further the relationship between soft skills and *CD* and *CI*. Therefore, the researchers formulated the following hypotheses:

H4a. TW enhances students' CD.

H4b. TW enhances students' future CI.

Career development (CD) and career intentions (CI)

CD and *CI* are the important factors that propel students toward achievement. In this regard, career orientation is the best indicator of expatriation intentions and *EI* (Baluku *et al.*, 2018). To attain the *CD* for positive professional development, one needs to have the right objectives and attitudes. The perceptions of informal organizational career management have a considerable negative direct and indirect impact on turnover intentions. The association between both types of organizational *CD* and turnover intentions is mediated by trust in management (Haridas *et al.*, 2022). Career choice plays an active role on children's development in several *CD* areas. Women make wise preparations for *CD* and education. Strong aspirations for a career and higher education and the acceptance of having to juggle work and motherhood affect their confidence in making plans (Marks and Houston, 2002). Darmanto and Pujiarti's (2020) findings reveal that the use of *CD* theory, *CD* management and ambitions are essential for students' employability and career options. While, as a behavioral control, there is a significant correlation between entrepreneurial drive and students' short-term career goals, there is no significant correlation between entrepreneurial drive and students' long-term entrepreneurial goals.

Consequently, *CD* and *CI* are complementary to each other. For instance, several scholars, such as Baluku *et al.* (2018) and Haridas *et al.* (2022) state that *CD* predicts *EI* or *CI* and that *CD* is forecasted through *CI*. Accordingly, this confirms *CD*'s role Pakistan's HEIs in developing the students' future *CI*. Therefore, the researchers formulated the following hypothesis:

H5. CD enhances students' future CI.

Methods

Approach and samples

The researchers used quantitative methods since these were highly validated and dependable techniques that ensured the respondents' confidentiality and integrity (Abdelwahed *et al.*, 2022a, b). These methods are more helpful in identifying peoples' attitudes and behavioral responses and help the researchers to conserve time and resources (Soomro *et al.*, 2022a). In addition, these benefit the respondents by offering a broad range of Likert scale options that provide outstanding reliability and validity (Cummins and Gullone, 2000). Furthermore, in the field of management and more particularly when examining soft skills, engagement, *CD*,

EI and *CI* are usually assessed by using a quantitative method (Baluku *et al.*, 2018; Majid *et al.*, 2019; Tang, 2020; Aryani *et al.*, 2021; Forrest and Swanton, 2021; Dubey *et al.*, 2022). These methods are used predominantly in higher education when assessing the students' career success.

In this study, the researchers focused on students from Pakistani universities which promised to provide them with knowledge. By identifying the students' skills gaps and, more particularly in developing contexts, the universities created specialized programs and shaped soft skills that helped countries to improve social cohesion, economic prosperity and workforce advancement (Soomro *et al.*, 2022a, b). The researchers surveyed the students between January and June 2022. We carried it out as part of a larger strategic initiative by Pakistan's universities to change the student curricula and instructional techniques in response to new challenges. These are reflected in the increasing number of students with family business backgrounds and those who combine their education with running their businesses. The researchers preferred university students due to their keen enthusiasm towards *CD* and having positive attitudes and *CI* for a bright future (Hizzett and Snaith, 2022). These students wished to develop their soft skills to tackle not only issues at the domestic level but, also, to attain global competition (Dubey *et al.*, 2022).

Data collection tactics and respondents' ethical values

The researchers used both paper and online surveys. In consideration of the existence and accessibility of the *HEIs'* respondents, we employed convenience sampling (non-probability sampling approach) since this is the recommended practice for online and offline questionnaires (Arora and Aggarwal, 2018). The researchers visited seventeen Pakistani universities which the US News and World Report, a Washington-based ranking guide, named among the best global universities for 2022 (see Table 1) (Hayder, 2022). In addition, we sent emails to a select group of respondents along with links to an online survey, to WhatsApp groups and to the university students' Facebook pages. The questionnaire consisted of three sections. The first section consisted of a cover form and a consent form. The second section highlighted the respondents' demographic information such as age and

Ranking in Pakistan	University	Global ranking
1	Quaid-i-Azam University	461
2	Aga Khan University	473
3	COMSATS University Islamabad	495
4	National University of Sciences and Technology	922
5	University of Peshawar	933
6	University of Agriculture Faisalabad	954
7	Government College (GC) University Faisalabad	1,149
8	University of Punjab	1,242
9	Bahauddin Zakariya University	1,368
10	University of Engineering and Technology (UET) Lahore	1,458
11	University of Karachi	1,543
12	University of Lahore	1,562
13	University of Sargodha	1,664
14	Government College (GC) University Lahore	1739
15	Arid Agriculture University	Unranked
16	Dow University of Health Sciences	Unranked
17	University of Engineering and Technology (UET) Taxila	Unranked

Source(s): Online available at: <https://propakistani.pk/2022/04/05/17-pakistani-universities-named-among-best-global-universities-for-2022/>

Table 1. Visited universities for sampling

gender. Most respondents (60.20% or $n = 236$) were 21–30 years of age. 30.61% ($n = 120$) were below 20 years and only 9.19% ($n = 36$) were 31 years and above. As regards gender, most respondents (54.60% or $n = 214$) were men and the other (45.40% or $n = 178$) were women. Finally, the third section contained the dependent and independent variables based on the Likert scales.

The researchers considered the respondents' ethical standards before asking them for their opinions. According to [Grinnell and Williams \(1990\)](#), ethics is a discipline that deals with right and wrong in terms of moral duties and responsibilities. In informing the students of this study's aims and objectives, the researchers considered the following ethical principles. To participate in the survey, participants had to sign consent papers and to grant permission to the researchers ([Jenkins et al., 2006](#)) who protected the respondents' privacy and confidentiality regarding their responses during their study participation. Once the researchers ensure the security of the questionnaire, we sent copies to the students. Having considered the completed questionnaires, the researchers used 392 valid samples for the final analysis. To ensure the required sample size, we used G*Power (version 3) which is an excellent freeware program with high precision power ([Cunningham and McCrum-Gardner, 2007](#)). This statistical software package is the best and most widely used in social and behavioral science to calculate statistical power for sample analysis ([Erdfelder et al., 1996](#); [Shah and Soomro, 2021](#)). The researchers used five predictors to support an adequate sample size for this test because G* power required 138 samples to perform *SEM* analysis. Therefore, this study's 392 valid samples met the G* power and *SEM* criteria for analysis.

Instrumental validation

The quantitative method highlights the hazards of mistakes which is a serious problem more particularly in social science, management and business research. Expressly, the reliability of the quantitative method is that it demonstrates the consistency among the items and the degree to which a construct or group of variables is dependable in what it is intended to examine ([Yin, 1994](#)). Therefore, the researchers used the Cronbach's alpha reliability test to confirm the questionnaire's overall and individual reliability, and we discovered it to be within acceptable bounds (>0.60) ([Hair et al., 2019](#)). We used factor loading to guarantee further the association between the items and their appropriate variables. Consequently, the loading scores for most items appeared higher than 0.60 and proved acceptable ([Hair et al., 2019](#)).

Similarly, a questionnaire's validity can be guaranteed if general conclusions can be drawn from the used model, the collected data and if the results can be extrapolated to other situations ([McFadden, 1977](#)). The researchers distributed a few questionnaires to academics and industry professionals to verify the face validity, i.e. the items, variables, language and design of the survey instrument. On the advice of the experts, the researchers revised specific questions in the questionnaire. Consequently, the researchers had a legitimate and trustworthy questionnaire to gather extensive data for this study.

Measures

Soft skills. We applied four multidimensional soft skills, namely, *CSE*, *PSC*, *CRC* and *TW*. We measured *CSE* on three items adopted from [Beghetto \(2006\)](#), the sample item of the scale is "I am good at coming up with new ideas". We assessed *PSC* on six items adopted from the [Cassidy and Long's \(1996\)](#) empirical investigation. The sample item of the scale is "I use logic to make my own decisions even if they are different from others". Likewise, we evaluated the *CRC* factor on three items adopted from [Strom and Strom \(2011\)](#) with sample item content "I have a good imagination". Finally, we assessed *TW* on three items adopted from [Strom and Strom \(2011\)](#). The sample item of the scale is "I stay focused on the task during group work."

CD. We assessed *CD* on five items adopted from [Getachew et al. \(2020\)](#). The sample item of the scale is "I know my interests and how they relate to my career."

CI. We gauged *CI* based on six items adopted from [Cieslik and van Stel's \(2017\)](#) empirical assessment. The sample item of the scale is "I shall be an employee of a large organization or company". We gauged all the items using a five-point Likert scale where 1 (strongly agree) and 5 (strongly disagree).

Data analysis

Descriptive statistics and correlations

The researchers used descriptive statistics to characterize how the data were represented throughout the entire population ([Hair et al., 2019](#)). *CD* has the highest mean score (3.663), whereas *CRC* has the lowest (2.002). For *TW*, the highest standard deviation scores are 1.968, while the lowest values for *CSC* are 1.212 (see [Table 2](#)). Also, we used a correlation matrix to guarantee the association's strength ([Hair et al., 2019](#)). Consequently, all components (independent) are connected to the dependent variables (see [Table 2](#)).

Measurement model

The researchers assessed the dependability of each individual item under the premise of the factor loadings. The bulk of the items show loading values greater than 0.70. However, we removed two elements, *psc4* and *ci5*, from the further estimation because these did not occur with the required values ([Hair et al., 2019](#)). In addition, the composite reliability (*CR*) values are in the range of 0.798 (*CD*)-0.857(*TW*) or higher than the recommended values (0.70) (see [Table 3](#)) ([Isaac et al., 2010](#)). Similarly, we used the average variance extracted (*AVE*) values to evaluate the identity of the construct. All constructions (>0.50) have *AVE* values between 0.778 (*TW*) and 0.852 (*CRC*) ([Hair et al., 2019](#)). In the final analysis, the researchers ensured that the Cronbach's alpha values for each construct were between 0.781(*CD*) and 0.898 (*CRC*) or within acceptable ranges (>0.70) (see [Table 3](#)).

Later, the researchers examined discriminant validity (*DV*) to determine the degree of construct discrimination among the items ([Fornell and Larcker, 1981](#)). Accordingly, we compared the *AVE*'s square root with rising correlations. The scores in the columns and rows of the definite construct appear to be outperformed by the condition of the *AVE* square root when measured diagonally (see [Table 4](#)). Consequently, sufficient *DV* is guaranteed.

Initially, the researcher noticed chi-square/df (2.189), which is <5.0 and provides the initial fitness of the model. Further, the researchers found this study's adjusted goodness of fit index (*AGFI*) to be 0.927; this is above the recommended value of (>0.85) ([Hair et al., 2019](#)). In addition, the comparative fit index (*CFI*) is 0.933; this exceeds the suggested cut-off threshold

Variables	Mean (SD)	1	2	3	4	5	6
1. CD	3.663 (1.501)	–					
2. CI	3.557 (1.432)	0.392**	–				
3. CSE	3.001 (1.212)	0.4003**	0.333**	–			
4. PSC	3.194 (1.392)	0.382**	0.382**	0.342*	–		
5. CRC	2.002 (1.897)	–0.086	–0.128	0.148*	0.123*	–	
6. TW	2.985 (1.968)	0.298**	0.223**	0.492**	0.352**	0.3661**	–

Note(s): SD, Standard deviation

**Correlation is significant at the 0.01 level (2-tailed)

*Correlation is significant at the 0.05 level (2-tailed)

Source(s): The researchers' own calculation

Table 2.
Descriptive statistics and correlation

Construct	Code	Loadings	CR	AVE	α
Creative self-efficacy [CSE]	cse1	0.884	0.821	0.838	0.848
	cse3	0.879			
	cse2	0.861			
Problem-solving confidence [PSC]	psc1	0.866	0.809	0.811	0.839
	psc2	0.838			
	psc3	0.822			
	psc6	0.808			
	psc5	0.788			
Critical thinking and creativity [CRC]	crc1	0.892	0.833	0.852	0.860
	crc2	0.868			
	crc3	0.844			
Teamwork [TW]	tw2	0.879	0.857	0.778	0.857
	tw3	0.852			
	tw1	0.849			
Career development [CD]	cd1	0.891	0.842	0.805	0.781
	cd3	0.876			
	cd2	0.864			
	cd4	0.833			
	cd5	0.825			
Career intention [CI]	ci1	0.867	0.798	0.790	0.822
	ci4	0.848			
	ci3	0.820			
	ci2	0.812			
	ci6	0.799			

Note(s): AVE = summation of the square of the factor loadings
 CR = square of the summation of the factor loadings
 α = Cronbach's alpha
Source(s): The researchers' own calculation

Table 3.
Measurement model

Constructs	1	2	3	4	5	6
1. CD	0.803					
2. CI	0.290	0.798				
3. CSE	0.306	0.187	0.773			
4. PSC	0.329	0.172	0.152	0.810		
5. CRC	0.209	0.289	0.280	0.341	0.798	
6. TW	0.302	0.199	0.321	0.390	0.344	0.780

Table 4.
Discriminant validity

Note(s): Diagonals represent the square root of the AVE while the other entries represent the correlations
Source(s): The researchers' calculation

of 0.90 (Bentler, 1990). The normed fit index (*NFI*) is 0.914; this is higher than Schermelleh-Engel *et al.*'s (2003) suggested value (>0.90). Finally, the root mean square error of approximation (*RMSEA*) is 0.038; this too is smaller than the estimated 0.08 value of the excellent fit to the data (Browne and Cudeck, 1993) (see Table 5).

As presented in Figure 2 and Table 6, the *SEM* path analysis suggests that *CSE* has a positive and significant effect on *CD* and *CI* ($H1a = SE = 0.024$; $CR = 7.362^{***}$; $H1b = SE = 0.021$; $CR = 6.222^{***}$; $p < 0.01$). Therefore, hypotheses *H1a* and *H1b* are accepted. The analysis demonstrates that *PSC* has a positive and significant effect of on *CD* and *CI*. Therefore, hypotheses *H2a* and *H2b* are accepted ($H2a = SE = 0.033$; $CR = 7.783^{***}$;

H2b = SE = 0.037; CR = 5.672***; $p < 0.01$). Similarly, the analysis shows that, while CRC has a positive and significant effect on CD (H3a = SE = 0.034; CR = 5.382***; $p < 0.01$), it has a negative and insignificant effect on CI (H3b = SE = -0.011; CR = -0.528; $p > 0.01$). Therefore, hypothesis H3a is accepted and hypothesis H3b is rejected. As per expectations, TW has a positive and significant predictive effect on CD and CI (H4a = SE = 0.030; CR = 5.882***; H4b = SE = 0.037; CR = 6.328***; $p < 0.01$). Therefore, hypotheses H4a and H4b are accepted. Finally, CD has a positive and significant effect on CI (H5 = SE = 0.036; CR = 6.890***; $p < 0.01$). Consequently, hypothesis H5 is accepted.

Discussion and conclusion

In this study, the researchers aimed to investigate the role of soft skills in developing CD and CI among Pakistan's university students. The researchers based the conceptualizations and methods of analysis on the existing literature.

The effect of soft skills on CD and CI. The SEM analysis shows that CSE has a positive and significant effect on both CD and CI. These findings are consistent with those of several scholars such as Drnovšek et al. (2010), Chen (2016), Sidratulmunthah et al. (2018), Getachew et al. (2020), Hartman and Barber (2020), Aryani et al. (2021), Sarwat and Abbas (2021), Maria et al. (2022) and Sarkar (2022). These findings demonstrate the students' aptitudes for developing original concepts. They are creative and have many ideas to enable them to pursue their CD and CI in many career fields. They anticipate that their CSE soft skills will

Goodness of fit indices	Value	Acceptance level	Reference
Chi-square/df	2.189	<5.0	Marsh and Hocevar (1985)
CFI	0.933	>0.90	Bentler (1990)
GFI	0.905	>0.90	Jöreskog and Sörbom (1993)
AGFI	0.927	>0.85	Anderson and Gerbing (1984)
NGI	0.914	>0.90	Schermelleh-Engel et al. (2003)
RMSEA	0.038	<0.08	Browne and Cudeck (1993)

Note(s): CMIN = χ^2 /chi-square/df; df = degrees of freedom; GFI = goodness-of-fit index; AGFI = adjusted goodness-of-fit index; NFI = normed fit index; CFI = comparative fit index; RMSEA = root mean square error of approximation

Source(s): The researchers' own calculation

Table 5. Model fit indices and their acceptable thresholds

H.No	Path	Estimate	SE	CR	P	Assessment
H1a	CSE → CD	0.212	0.024	7.362	***	Accepted
H1b	CSE → CI	0.208	0.021	6.222	***	Accepted
H2a	PSC → CD	0.210	0.033	7.783	***	Accepted
H2b	PSC → CI	0.071	0.037	5.672	***	Accepted
H3a	CRC → CD	0.069	0.034	5.382	***	Accepted
H3b	CRC → CI	-0.022	-0.011	-0.528	0.719	Rejected
H4a	TW → CD	0.189	0.030	5.882	***	Accepted
H4b	TW → CI	0.230	0.037	6.328	***	Accepted
H5	CD → CI	0.320	0.036	6.890	***	Accepted

Note(s): SE = standard error; CR = critical ratio; p = significance level; *** $p < 0.05$

CSE, Creative self-efficacy; PSC, Problem-solving confidence; CRC, Critical thinking and creativity; TW, teamwork; CD, career development; CI, career intention

Source(s): The researchers' own calculation

Table 6. Hypotheses assessment

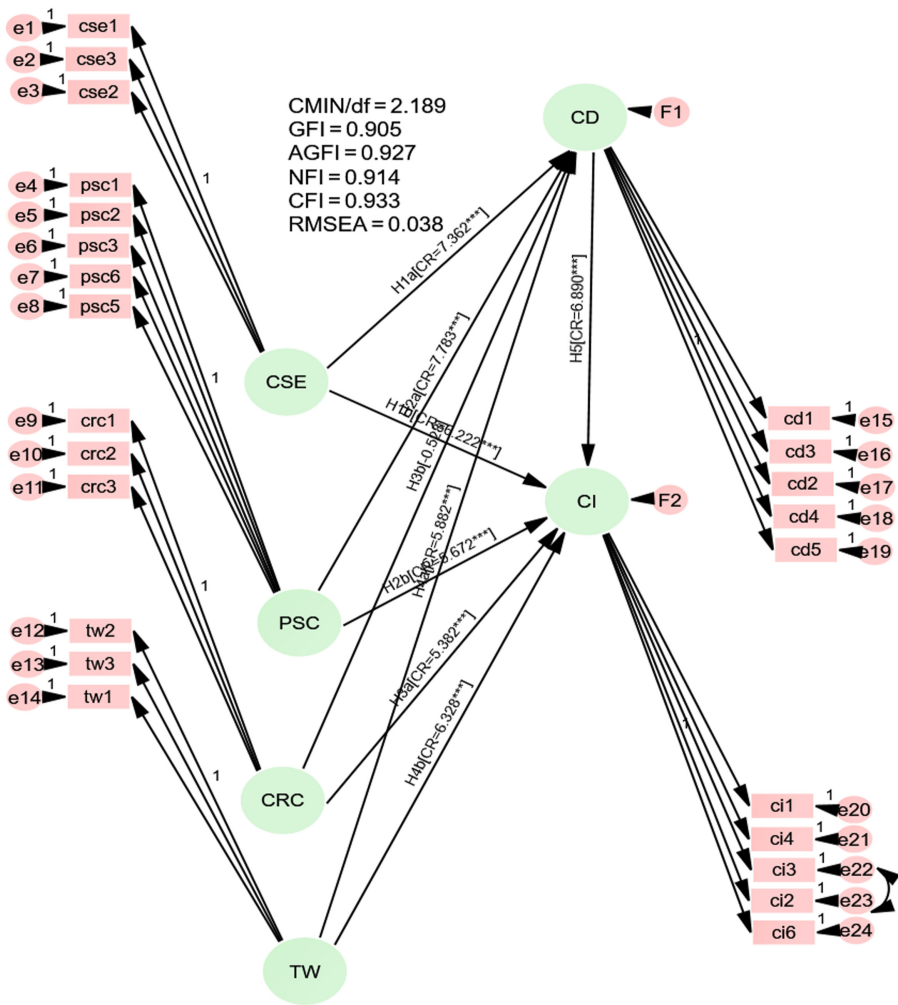


Figure 2.
Path analysis [SEM]

Note(s): CSE, Creative self-efficacy; PSC, Problem solving confidence; CRC, Critical thinking and creativity; TW, teamwork; CD, career development; CI, career intention

Source(s): The researchers' own estimation

help them become more engaged in their careers and more eager to continue the development of their skills through various training courses. They think their skills are a great asset that will enable them to achieve many of their goals. Their *CSE* will provide them with the best way to develop *CI* to launch a new business. A university education will be supportive in creating students' aspirations to start their own businesses. Also, *CSE* increases women's intentions to engage in high-growth ventures.

Turning to *PSC*'s effect of on *CD* and *CI*, this study's findings demonstrate that *PSC* makes a positive and significant impact on both *CD* and *CI*. These findings are consistent with the findings of various scholars in different settings (Ayalew and Zeleke, 2018; Baird and

Parayitam, 2019; Park and Park, 2020; Aryani *et al.*, 2021; Forrest and Swanton, 2021; Desha *et al.*, 2021). This study's findings demonstrate the wishes of Pakistan's university students to use logic to make their conclusions, even if they differ from others. By contrasting the advantages and disadvantages of various concepts, they give their decisions a lot of thought. In general, they view issues as obstacles to be overcome and seek to identify solutions to difficult circumstances. When they make decisions, they will ultimately be delighted with them. These projects contribute to *CD* and *CI* trends.

Further, this study's findings confirm that *CRC* has a positive and significant effect on *CD*. However, the findings of Li and Fan (2017), Bazzay *et al.* (2019), Tejan and Sabil (2019), Forrest and Swanton (2021), Zainal (2022), and Altinay *et al.* (2022) in different contexts show acceptance and rejection of *CRC*'s effects on *CI* outcomes are supported by the different earlier investigations. This study's findings indicate that university students have strong imaginations regarding *CD* but not for *CI*. They know how to reach future goals and have good ideas and innovation to advance their careers. They have many positive and productive ideas that will help them to succeed. According to them, creative people can manage their time; deal with change head-on; set clear goals; develop profitable business and marketing plans; and communicate and lead others well. Innovation and originality are crucial to possessing employment skills. It helps people seize chances and identify skills, creativity, persistence, propensity for taking risks, planning abilities and leadership traits. All these have a substantial and favorable impact on the development of an entrepreneurial career.

With regard to the final soft skills hypothesis, as reinforced by the existing literature about soft skills, this study's findings show that *TW* has a positive and significant effect on *CD* and *CI* literature (Volkov and Volkov, 2015; Gloria *et al.*, 2015; Majid *et al.*, 2019; Tang, 2020; Tripathy, 2020; Succi and Canovi, 2020; Forrest and Swanton, 2021). This study's findings show that, during group work, university students maintain their attention on the task at hand. They carry out group-assigned individual roles. Also, they express optimism about the group's success. In the classroom, they cooperate to complete learning assignments in courses related to their future occupations. They think *TW* is the most effective way to achieve achievement and employment. They believe that, also, in terms of *TW*, soft skills offer the best alternative to a fruitful and effective, career and an entertaining method of job hunting.

The effect of CD on CI. The path analysis supports *CD*'s positive effect on *CI* among Pakistan university students. These findings are consistent, also, with those of numerous studies by Marks and Houston (2002), Baluku *et al.* (2018), Darmanto and Pujiarti (2020) and Haridas *et al.* (2022). These findings show that the students know their passions and how they connect to their careers. They possess the necessary skills to obtain efficient jobs. They are aware of their potential for professional development. They acknowledge that their preferred working methods and ideals are important to them. They anticipate working for a major corporation or bank in addition to joining the staff of a public administration organization. They aspire, also, to work for a small and medium-sized enterprise (*SME*) without having any familial ties. They wish to operate their firm and family business (eventually with a business partner).

In summary, this study's findings show that, on the one hand, soft skills, such as *CSE*, *PSC* and *TW*, have a positive and significant effect on *CD* and *CI*. On the other hand, *CRC* has negative effect on *CI*. This study's findings support, also, that, among Pakistan's university students, *CD* has a positive and significant impact on *CI*.

Limitations, implications and future research agenda

Since the researchers conducted this study in a developing society, it has several limitations. In terms of the methods, the researchers limited this study by using quantitative methods and

a single source of cross-sectional data. The researchers chose a few soft skills (*CSE*, *PSE*, *CRC* and *TW*) towards *CD* and *CI* and did not use a relevant theory to strengthen the study's conceptualization.

Turning to the survey tools, the researchers used a survey questionnaire based on closed-ended options. The researchers used a five-point Likert scale which restricted the respondents to five choices. The researchers limited the study to seventeen Pakistani universities named among the best global universities for 2022. In terms of demography, the researchers examined only two indicators, namely, age and gender. The researchers applied non-probability sampling (convenience), and this might cause some issues in respect of the generalization of this study's findings. The researchers targeted the university students only as this study's respondents, and from the returned questionnaires, we used a 392 sample to arrive at this study's findings.

This study's findings enhance the students' beliefs and creativity to develop creative outcomes, academic excellence and performance. This study's findings help, also, to build the students' confidence to becoming true leaders who can step forward to face different organizational challenges and take control of situations. This study's findings help to define and identify the causes of problems and how these can be dealt with wisely. This study paves the way, also, for an intellectually disciplined process of actively and skillfully conceptualizing, applying, analyzing, synthesizing and evaluating information gathered from various sources. In addition, this study's findings help policymakers and university administrators to understand the importance of soft skills in creating *CD*, *CI*, and professional prospects for students and enhancing graduates' employability prospects as educators. This study's findings promote the development of employability skills and fulfil its aim in preparing graduates for the volatile job market. This study's findings may inspire students also, to use their creativity and imagination to meet the demands of a new career field. The findings help to develop logical reasoning when dealing with complex organizational issues and to making reasoned decisions and. This study's objective was to spark students' interest in their careers and the skills they may offer to their employment. In addition, this study's findings help students to form optimistic attitudes and intentions toward jobs and a promising future. Finally, this study's findings add to the existing management and education literature and, more especially, in the context of Pakistan as a developing country.

The researchers recommend that future studies on soft skills' impact on *CD*, and *CI* use extensive longitudinal data. For example, the idea of planned behavior may be considered to explore the *CI* and *CD* in greater detail. The researchers recommend, also, that a future integrated model should include numerous additional factors such as attitudes, subjective norms, need for achievement, innovation, perceived behavioral control, career engagement, career commitment, turnover intention and job satisfaction.

References

- Abdelwahed, N.A.A., Soomro, B.A. and Shah, N. (2022a), "Predicting employee performance through transactional leadership and entrepreneur's passion among the employees of Pakistan", *Asia Pacific Management Review*, Vol. 28 No. 1, pp. 60-68. doi: [10.1016/j.apmr.2022.03.001](https://doi.org/10.1016/j.apmr.2022.03.001).
- Abdelwahed, N.A.A., Soomro, B.A., Shah, N. and Saraih, U.N. (2022b), "Effect of institutional support and entrepreneurial knowledge on women's entrepreneurial self-efficacy and venture performance in a developing country", *International Journal of Innovation Science*, Vol. ahead-of-print No. ahead-of-print. doi: [10.1108/IJIS-12-2021-0218](https://doi.org/10.1108/IJIS-12-2021-0218).
- Ahmad, S., Ameen, K. and Ullah, M. (2017), "Modes of soft skills learning: a case of university information professionals' in Pakistan", *Library Review*, Vol. 66 Nos 8/9, pp. 711-725.

- Ahmad, S., Ahmad, S. and Ameen, K. (2021a), "A qualitative study of soft skills development opportunities: perceptions of university information professionals", *Global Knowledge, Memory and Communication*, Vol. 70 Nos 6/7, pp. 489-503.
- Ahmad, S., Ameen, K. and Ahmad, S. (2021b), "Information professionals' soft skills status and barriers in its development: a mixed method study", *Library Management*, Vol. 42 Nos 1/2, pp. 80-92.
- Ahmed, F., Fernando Capretz, L., Bouktif, S. and Campbell, P. (2012), "Soft skills requirements in software development jobs: a cross-cultural empirical study", *Journal of Systems and Information Technology*, Vol. 14 No. 1, pp. 58-81.
- Altinay, L., Kromidha, E., Nurmagambetova, A., Alrawadieh, Z. and Madanoglu, G.K. (2022), "A social cognition perspective on entrepreneurial personality traits and intentions to start a business: does creativity matter?", *Management Decision*, Vol. 60 No. 6, pp. 1606-1625.
- Anderson, J.C. and Gerbing, D.W. (1984), "The effect of sampling error on convergence, improper solutions, and goodness-of-fit indices for maximum likelihood confirmatory factor analysis", *Psychometrika*, Vol. 49 No. 1, pp. 155-173.
- Arora, N. and Aggarwal, A. (2018), "The role of perceived benefits in formation of online shopping attitude among women shoppers in India", *South Asian Journal of Business Studies*, Vol. 7 No. 1, pp. 91-110.
- Aryani, F., Wirawan, H., Saman, A., Samad, S. and Jufri, M. (2021), "From high school to workplace: investigating the effects of soft skills on career engagement through the role of psychological capital in different age groups", *Education + Training*, Vol. 63 No. 9, pp. 1326-1345.
- Ayalew, M.M. and Zeleke, S.A. (2018), "Modeling the impact of entrepreneurial attitude on self-employment intention among engineering students in Ethiopia", *Journal of Innovation and Entrepreneurship*, Vol. 7 No. 1, pp. 1-27.
- Ayodele, T.O., Oladokun, T.T. and Kajimo-Shakantu, K. (2020), "Employability skills of real estate graduates in Nigeria: a skill gap analysis", *Journal of Facilities Management*, Vol. 18 No. 3, pp. 297-323.
- Ayodele, T.O., Adegoke, O.J., Kajimo-Shakantu, K. and Olaoye, O. (2021), "Factors influencing real estate graduates soft skill gap in Nigeria", *Property Management*, Vol. 39 No. 5, pp. 581-599.
- Baird, A.M. and Parayitam, S. (2019), "Employers' ratings of importance of skills and competencies college graduates need to get hired: evidence from the New England region of USA", *Education + Training*, Vol. 61 No. 5, pp. 622-634.
- Bak, O., Jordan, C. and Midgley, J. (2019), "The adoption of soft skills in supply chain and understanding their current role in supply chain management skills agenda: a UK perspective", *Benchmarking: An International Journal*, Vol. 26 No. 3, pp. 1063-1079.
- Baluku, M.M., Löser, D., Otto, K. and Schummer, S.E. (2018), "Career mobility in young professionals: how a protean career personality and attitude shapes international mobility and entrepreneurial intentions", *Journal of Global Mobility*, Vol. 6 No. 1, pp. 102-122.
- Bazzy, J.D., Smith, A.R. and Harrison, T. (2019), "The impact of abstract thinking on entrepreneurial intentions", *International Journal of Entrepreneurial Behavior and Research*, Vol. 25 No. 2, pp. 323-337.
- Beghetto, R.A. (2006), "Creative self-efficacy: correlates in middle and secondary students", *Creativity Research Journal*, Vol. 18, pp. 447-457.
- Bentler, P.M. (1990), "Comparative fit indexes in structural models", *Psychological Bulletin*, Vol. 107 No. 2, pp. 238-246.
- Browne, M.W. and Cudeck, R. (1993), "Alternative ways of assessing model fit", *Sage Focuses Editions*, Vol. 154, pp. 126-136.
- Cassidy, T. and Long, C. (1996), "Problem-solving style, stress and psychological illness: development of a multifactorial measure", *British Journal of Clinical Psychology*, Vol. 35, pp. 265-277.

- Chen, I.S. (2016), "Examining the linkage between creative self-efficacy and work engagement: the moderating role of openness to experience", *Baltic Journal of Management*, Vol. 11 No. 4, pp. 516-534.
- Cieřlik, J. and van Stel, A. (2017), "Explaining university students' career path intentions from their current entrepreneurial exposure", *Journal of Small Business and Enterprise Development*, Vol. 24 No. 2, pp. 313-332.
- Conger, S. (2002), "Fostering a career development culture: reflections on the roles of managers, employees and supervisors", *Career Development International*, Vol. 7 No. 6, pp. 371-375.
- Cullen, G.J. (2013), "Vocational ideation and management career development", *Journal of Management Development*, Vol. 32 No. 9, pp. 932-944.
- Cummins, R.A. and Gullone, E. (2000), "Why we should not use 5-point Likert scales: the case for subjective quality of life measurement", *Proceedings, Second International Conference on Quality of Life in Cities*, Vol. 74 No. 2, pp. 74-93.
- Cunningham, J.B. and McCrum-Gardner, E. (2007), "Power, effect and sample size using GPower: practical issues for researchers and members of research ethics committees", *Evidence Based Midwifery*, Vol. 5 No. 4, pp. 132-136.
- Cziraki, K., Read, E., Laschinger, S.H.K. and Wong, C. (2018), "Nurses' leadership self-efficacy, motivation, and career aspirations", *Leadership in Health Services*, Vol. 31 No. 1, pp. 47-61.
- Dabke, D. (2015), "Soft skills as a predictor of perceived internship effectiveness and permanent placement opportunity", *IUP Journal of Soft Skills*, Vol. 9 No. 4, pp. 26-42.
- Daniel, A.D. and Almeida, J. (2020), "The role of junior enterprises in the development of students' entrepreneurial skills", *Education + Training*, Vol. 63 No. 3, pp. 360-376.
- Darmanto, S. and Pujiarti, E. (2020), "Developing student's social entrepreneurial intention", *Management Science Letters*, Vol. 10 No. 5, pp. 1103-1106.
- Delbari, S., Rajaipour, S. and Abedini, Y. (2021), "Investigating the relationship between career development and productivity with the mediating role of self-regulation among university staff", *Journal of Applied Research in Higher Education*, Vol. 13 No. 3, pp. 759-781.
- Desha, C., Caldera, S. and Hutchinson, D. (2021), "Exploring the development of context appreciation in coursework that targets problem-solving for sustainable development", *International Journal of Sustainability in Higher Education*, Vol. 22 No. 5, pp. 1186-1224.
- Drnovšek, M., Wincent, J. and Cardon, M.S. (2010), "Entrepreneurial self-efficacy and business start-up: developing a multi-dimensional definition", *International Journal of Entrepreneurial Behavior and Research*, Vol. 16 No. 4, pp. 329-348.
- Dubey, S.R., Paul, J. and Tewari, V. (2022), "The soft skills gap: a bottleneck in the talent supply in emerging economies", *The International Journal of Human Resource Management*, Vol. 33 No. 13, pp. 2630-2661.
- Erdfelder, E., Faul, F. and Buchner, A. (1996), "GPOWER: a general power analysis program", *Behavior Research Methods, Instruments, and Computers*, Vol. 28 No. 1, pp. 1-11.
- Fornell, C. and Larcker, D.F. (1981), "Evaluating structural equation models with unobservable variables and measurement error", *Journal of Marketing Research*, Vol. 18 No. 1, pp. 39-50.
- Forrest, C.J. and Swanton, T. (2021), "Longitudinal associations between soft skills, education and labour market outcomes: evidence from a survey of young Australians", *Education + Training*, Vol. 63 No. 9, pp. 1276-1287.
- Getachew, A., Ayele, M., Hailu, E.M. and Tuli, F. (2020), "Effectiveness of soft skill training for students' career development in higher education", *Journal of the Social Sciences*, Vol. 48 No. 4, pp. 1817-1832.
- Gloria, T.J., Nebert, M.K. and Ruth, T.J. (2015), "Influence of working condition on employee career change intention: a case of Moi University, Kenya", *International Journal of Management Sciences*, Vol. 5 No. 3, pp. 222-236.

-
- Grinnell, R.M. and Williams, M. (1990), *Research in Social Work: A Primer*, Peacock, Itasca, IL.
- Hair, J.F., Risher, J.J., Sarstedt, M. and Ringle, C.M. (2019), "When to use and how to report the results of PLS-SEM", *European Business Review*, Vol. 31 No. 1, pp. 2-24.
- Haridas, J., Ture, R.S. and Nayanpally, A.K. (2022), "Organizational career management and turnover intentions: mediating role of trust in management", *European Journal of Training and Development*, Vol. 46 Nos 1/2, pp. 257-275.
- Hartman, R.L. and Barber, E.G. (2020), "Women in the workforce: the effect of gender on occupational self-efficacy, work engagement and career aspirations", *Gender in Management*, Vol. 35 No. 1, pp. 92-118.
- Hayder, H. (2022), "17 Pakistani universities named among best global universities for 2022, ProPaksitani", available at: <https://propaksitani.pk/2022/04/05/17-pakistani-universities-named-among-best-global-universities-for-2022/> (accessed November 2022).
- Hizzett, K. and Snaith, B. (2022), "Career intentions, their influences and motivational factors in diagnostic radiography: a survey of undergraduate students", *Radiography*, Vol. 28 No. 1, pp. 162-167.
- Ibrahim, R., Boerhannoeddin, A. and Bakare, K.K. (2017), "The effect of soft skills and training methodology on employee performance", *European Journal of Training and Development*, Vol. 41 No. 4, pp. 388-406.
- Isaac, R.G., Herremans, I.M. and Kline, T.J. (2010), "Intellectual capital management enablers: a structural equation modeling analysis", *Journal of Business Ethics*, Vol. 93 No. 3, pp. 373-391.
- Itani, M. and Srour, I. (2016), "Engineering students' perceptions of soft skills, industry expectations, and career aspirations", *Journal of Professional Issues in Engineering Education and Practice*, Vol. 142 No. 1, pp. 0401-5005.
- Jenkins, S.P., Cappellari, L., Lynn, P., Jäckle, A. and Sala, E. (2006), "Patterns of consent: evidence from a general household survey", *Journal of the Royal Statistical Society: Series A (Statistics in Society)*, Vol. 169 No. 4, pp. 701-722.
- Jöreskog, K.G. and Sörbom, D. (1993), *LISREL 8: Structural Equation Modeling with the SIMPLIS Command Language*, Scientific Software International, Lawrence Erlbaum Associates.
- Kelley, C.A. and Bridges, C. (2005), "Introducing professional and career development skills in the marketing curriculum", *Journal of Marketing Education*, Vol. 27 No. 3, pp. 212-218.
- Kemp, L.J. and McLoughlin, L. (2022), "Influences on the career intentions of millennials; a view from the United Arab Emirates", *Higher Education, Skills and Work-Based Learning*, Vol. 12 No. 2, pp. 193-209.
- Khalid, K. and Ahmad, A.M. (2021), "The relationship between employability skills and career adaptability: a case of undergraduate students of the United Arab Emirates", *Higher Education, Skills and Work-Based Learning*, Vol. 11 No. 5, pp. 1035-1054.
- King, A.S. (1994), "Self-assessment of thinking and problem solving: facilitating career planning and diversity training", *International Journal of Career Management*, Vol. 6 No. 5, pp. 18-29.
- Lee, Y. and Lee, J.Y. (2018), "A multilevel analysis of individual and organizational factors that influence the relationship between career development and job-performance improvement", *European Journal of Training and Development*, Vol. 42 Nos 5/6, pp. 286-304.
- Li, M. and Fan, W. (2017), "The role of thinking styles in career development among Chinese college students", *The Career Development Quarterly*, Vol. 65 No. 3, pp. 237-249.
- Majid, S., Liming, Z., Tong, S. and Raihana, S. (2012), "Importance of soft skills for education and career success", *International Journal for Cross-Disciplinary Subjects in Education*, Vol. 2 No. 2, pp. 1037-1042.
- Majid, S., Eapen, C.M., Aung, E.M. and Oo, K.T. (2019), "The importance of soft skills for employability and career development: students and employers' perspectives", *IUP Journal of Soft Skills*, Vol. 13 No. 4, pp. 7-39.

- Mareque, M., de Prada Creo, E. and Gonzalez-Sanchez, M.B. (2019), "Fostering creativity and communicative soft skills through leisure activities in management studies", *Education + Training*, Vol. 61 No. 1, pp. 94-107.
- Maria, A.D., Yulianto, H., Palupingtyas, D. and Usodo, H. (2022), "Relationship between transformational leadership, proactive personality, creative self-efficacy and employee creativity at food processing SMEs in Indonesia", *Evidence-based HRM*, Vol. 10 No. 3, pp. 257-274.
- Marks, G. and Houston, D.M. (2002), "The determinants of young women's intentions about education, career development and family life", *Journal of Education and Work*, Vol. 15 No. 3, pp. 321-336.
- Marsh, H.W. and Hocevar, D. (1985), "Application of confirmatory factor analysis to the study of self-concept: first-and higher order factor models and their invariance across groups", *Psychological Bulletin*, Vol. 97 No. 3, pp. 562-582.
- Maxwell, G. (2009), "Mentoring for enhancing females' career development: the bank job", *Equal Opportunities International*, Vol. 28 No. 7, pp. 561-576.
- McFadden, D. (1977), "Quantitative methods for analyzing travel behaviour of individuals: some recent developments", Cowles Foundation Discussion Papers, 707, Yale University, New Haven.
- McKenzie, S., Coldwell-Neilson, J. and Palmer, S. (2018), "Understanding the career development and employability of information technology students", *Journal of Applied Research in Higher Education*, Vol. 10 No. 4, pp. 456-468.
- Ng, P.M.L., Chan, J.K.Y., Wut, T.M., Lo, M.F. and Szeto, I. (2021), "What makes better career opportunities for young graduates? Examining acquired employability skills in higher education institutions", *Education + Training*, Vol. 63 No. 6, pp. 852-871.
- Nusrat, M. and Sultana, N. (2019), "Soft skills for sustainable employment of business graduates of Bangladesh", *Higher Education, Skills and Work-Based Learning*, Vol. 9 No. 3, pp. 264-278.
- Okolie, U.C., Nwajiuba, C.A., Binuomote, M.O., Ehiobuche, C., Igu, N.C.N. and Ajoke, O.S. (2020), "Career training with mentoring programs in higher education: facilitating career development and employability of graduates", *Education + Training*, Vol. 62 No. 3, pp. 214-234.
- Omair, K. (2010), "Typology of career development for Arab women managers in the United Arab Emirates", *Career Development International*, Vol. 15 No. 2, pp. 121-143.
- O'Loughlin, A. and McFadzean, E. (1999), "Toward a holistic theory of strategic problem solving", *Team Performance Management*, Vol. 5 No. 3, pp. 103-120.
- Park, S. and Park, S.Y. (2020), "Career adaptability of South Korean engineering students: personal and contextual influencing factors", *European Journal of Training and Development*, Vol. 44 Nos 4/5, pp. 469-488.
- Pinnington, A., Aldabbas, H., Mirshahi, F. and Pirie, T. (2022), "Organisational development programmes and employees' career development: the moderating role of gender", *Journal of Workplace Learning*, Vol. 34 No. 5, pp. 466-496.
- Plakhotnik, M.S., Krylova, A.V. and Maslikova, A.D. (2020), "Does participation in case competitions improve career decision-making self-efficacy of university students?", *Education + Training*, Vol. 62 No. 6, pp. 659-675.
- Rae, D. and Woodier-Harris, R.N. (2013), "How does enterprise and entrepreneurship education influence postgraduate students' career intentions in the New Era economy?", *Education + Training*, Vol. 55 Nos 8/9, pp. 926-948.
- Rajchamaha, K. and Prapojanasomboon, J. (2022), "Influence of role models on the entrepreneurial skills of science and technology undergraduates", *Education + Training*, Vol. 64 No. 7, pp. 981-995.
- Rao, M.S. (2014), "Enhancing employability in engineering and management students through soft skills", *Industrial and Commercial Training*, Vol. 46 No. 1, pp. 42-48.

-
- Riebe, L., Roepen, D., Santarelli, B. and Marchioro, G. (2010), "Teamwork: effectively teaching an employability skill", *Education + Training*, Vol. 52 Nos 6/7, pp. 528-539.
- Santos, S.C. and Liguori, E.W. (2020), "Entrepreneurial self-efficacy and intentions: outcome expectations as mediator and subjective norms as moderator", *International Journal of Entrepreneurial Behavior and Research*, Vol. 26 No. 3, pp. 400-415.
- Sarkar, A. (2022), "Factors associated with general self-efficacy of women leaders in India", *Leadership and Organization Development Journal*, Vol. 43 No. 7, pp. 1080-1097.
- Sarwat, N. and Abbas, M. (2021), "Individual knowledge creation ability: dispositional antecedents and relationship to innovative performance", *European Journal of Innovation Management*, Vol. 24 No. 5, pp. 1763-1781.
- Schermelleh-Engel, K., Moosbrugger, H. and Müller, H. (2003), "Evaluating the fit of structural equation models: tests of significance and descriptive goodness-of-fit measures", *Methods of Psychological Research Online*, Vol. 8 No. 2, pp. 23-74.
- Seetha, N. (2014), "Are soft skills important in the workplace?-A preliminary investigation in Malaysia", *International Journal of Academic Research in Business and Social Sciences*, Vol. 4 No. 4, pp. 44-56.
- Shah, N. and Soomro, B.A. (2021), "Internal green integration and environmental performance: the predictive power of proactive environmental strategy, greening the supplier, and environmental collaboration with the supplier", *Business Strategy and the Environment*, Vol. 30 No. 2, pp. 1333-1344.
- Shi, L., Yao, X. and Wu, W. (2020), "Perceived university support, entrepreneurial self-efficacy, heterogeneous entrepreneurial intentions in entrepreneurship education: the moderating role of the Chinese sense of face", *Journal of Entrepreneurship in Emerging Economies*, Vol. 12 No. 2, pp. 205-230.
- Sidratulmunthah, Hussain, S. and Malik, I.M. (2018), "Towards nurturing the entrepreneurial intentions of neglected female business students of Pakistan through proactive personality, self-efficacy and university support factors", *Asia Pacific Journal of Innovation and Entrepreneurship*, Vol. 12 No. 3, pp. 363-378.
- Singh, A. and Jaykumar, P. (2019), "On the road to consensus: key soft skills required for youth employment in the service sector", *Worldwide Hospitality and Tourism Themes*, Vol. 11 No. 1, pp. 10-24.
- Smith, R.M., Sardeshmukh, S.R. and Combs, G.M. (2016), "Understanding gender, creativity, and entrepreneurial intentions", *Education + Training*, Vol. 58 No. 3, pp. 263-282.
- Soomro, B.A., Saraih, U.N. and Ahmad, T.S.T. (2022a), "Personality traits and conflict management styles: building the relationship through leadership effectiveness", *Kybernetes*, Vol. ahead-of-print No. ahead-of-print. doi: [10.1108/K-03-2022-0348](https://doi.org/10.1108/K-03-2022-0348).
- Soomro, B.A., Saraih, U.N. and Ahmad, T.S.T. (2022b), "Personality traits and conflict management styles via job performance in higher education", *Journal of Applied Research in Higher Education*, Vol. ahead-of-print No. ahead-of-print. doi: [10.1108/JARHE-05-2022-0166](https://doi.org/10.1108/JARHE-05-2022-0166).
- Strom, P.S. and Strom, R.D. (2011), "Teamwork skills assessment for cooperative learning", *Educational Review and Evaluation*, Vol. 17, pp. 233-251.
- Succi, C. and Canovi, M. (2020), "Soft skills to enhance graduate employability: comparing students and employers' perceptions", *Studies in Higher Education*, Vol. 45 No. 9, pp. 1834-1847.
- Succi, C. and Wieandt, M. (2019), "Walk the talk: soft skills' assessment of graduates", *European Journal of Management and Business Economics*, Vol. 28 No. 2, pp. 114-125.
- Sweida, G.L. and Reichard, R.J. (2013), "Gender stereotyping effects on entrepreneurial self-efficacy and high-growth entrepreneurial intention", *Journal of Small Business and Enterprise Development*, Vol. 20 No. 2, pp. 296-313.
- Tan, C., Abdullah, K.A.G. and Ali, A.J. (2019), "The effects of soft skill integration on quality of college life of diploma business students: evidence from Malaysian private higher education", *Journal of International Education in Business*, Vol. 12 No. 2, pp. 133-146.

- Tang, K.N. (2020), "The importance of soft skills acquisition by teachers in higher education institutions", *Kasetsart Journal of Social Sciences*, Vol. 41 No. 1, pp. 22-27.
- Tejan, O.A. and Sabil, A. (2019), "Understanding employers' perception of employability skills and career development in Morocco", *International Journal of Education and Literacy Studies*, Vol. 7 No. 2, pp. 134-138.
- Teng, W., Ma, C., Pahlevansharif, S. and Turner, J.J. (2019), "Graduate readiness for the employment market of the 4th industrial revolution: the development of soft employability skills", *Education + Training*, Vol. 61 No. 5, pp. 590-604.
- Tripathy, M. (2020), "Relevance of soft skills in career success", *MIER Journal of Educational Studies Trends and Practices*, Vol. 10 No. 1, pp. 91-102.
- Volkov, A. and Volkov, M. (2015), "Teamwork benefits in tertiary education: student perceptions that lead to best practice assessment design", *Education + Training*, Vol. 57 No. 3, pp. 262-278.
- Wilkin, C.L. (2017), "Enhancing critical thinking: accounting students' perceptions", *Education + Training*, Vol. 59 No. 1, pp. 15-30.
- Wong, S.C., Rasdi, M.R., Samah, A.B. and Wahat, A.N.W. (2017), "Promoting protean career through employability culture and mentoring: career strategies as moderator", *European Journal of Training and Development*, Vol. 41 No. 3, pp. 277-302.
- Wu, Y., Song, W., Cao, Z., Zhang, J. and Lim, A. (2021), "Learning improvement heuristics for solving routing problems", *IEEE Transactions on Neural Networks and Learning Systems*, Vol. 33 No. 9, pp. 5057-5069.
- Yao, C.W. and Tuliao, M.D. (2019), "Soft skill development for employability: a case study of stem graduate students at a Vietnamese transnational university", *Higher Education, Skills and Work-Based Learning*, Vol. 9 No. 3, pp. 250-263.
- Yin, R.K. (1994), *Case Study Research: Design and Methods*, Sage Publication, Thousands Oakes, CA.
- Zainal, M. (2022), "Enterprising profile and career development of Kuwaiti youth community", *Journal of Enterprising Communities: People and Places in the Global Economy*, Vol. 16 No. 6, pp. 1014-1032.
- Zinser, R. (2003), "Developing career and employability skills: a US case study", *Education + Training*, Vol. 45 No. 7, pp. 402-410.

Further reading

- Chen, K.D. and Huang, Y.Y. (2017), "A coordinative mechanism of career coaching practice in innovativeness and creativity training programs in higher education – a case study", *International Journal of Innovation Science*, Vol. 9 No. 3, pp. 283-295.
- Creo, D.P.E., Mareque, M. and Portela-Pino, I. (2021), "The acquisition of teamwork skills in university students through extra-curricular activities", *Education + Training*, Vol. 63 No. 2, pp. 165-181.
- Wu, D., Xu, J.(D.) and Abdinnour, S. (2022), "Tablets for problem-solving through a flow theory: the impact of navigation and visual appearance on perceived performance and efficiency", *Information Technology and People*, Vol. 35 No. 1, pp. 142-164.

Corresponding author

Bahadur Ali Soomro can be contacted at: bahadur.ali@scholars.usindh.edu.pk

For instructions on how to order reprints of this article, please visit our website:

www.emeraldgroupublishing.com/licensing/reprints.htm

Or contact us for further details: permissions@emeraldinsight.com