RESEARCH Open Access

Examining the relationship of career crafting, perceived employability, and subjective career success: the moderating role of job autonomy

Naglaa Mohamed Diaa^{1*}, Ali Zain Ul Abidin² and Marvin Roller³

Abstract

Career crafting has emerged as a significant construct in the field of career development, with the potential to significantly boost individuals' overall work satisfaction. This study aimed to examine whether career crafting could improve individual's subjective career success and perceived employability. Career crafting is an inevitable course of career-related actions to achieve career satisfaction. Based on proactive behavior theory, it is hypothesized that career crafting would have an impact on individuals' subjective career success and perceived employability through the moderating role of job autonomy. Using cross-sectional study design, data were collected via Google Forms survey from 224 employees working in various fields in Pakistan and data were analyzed using structural equation modeling (SEM) via AMOS. The results indicate that career crafting has a significant positive relationship with subjective career success and perceived employability. Furthermore, job autonomy also has significant positive relationship with subjective career success and perceived employability. However, the moderation of job autonomy was not supported. This study provides robust insights to career practitioners, academicians, and individuals. Overall, the study expands the literature of the novel notion of career crafting and career outcomes; additionally, the study advocates organizations to include career crafting in HR policies and helping them to enhance the well-being of employees in their career development.

Keywords Career crafting, Subjective career success, Perceived employability, Job autonomy

Introduction

Technological advancements, the globalization of businesses, and increased competition in the workplace have altered the perceptions of careers, and employees must be aware of emerging market trends and the demand for job-related skills or may forfeit their jobs. As a result of the environment's rapid transformation, occupations are becoming more fluid and versatile, and individuals are

changing their jobs and organizations more frequent than in the past.

In the past few years, the concept of career crafting has emerged as a popular approach to career development and management. With the changing nature of work and the increasing complexity of career paths, career crafting offers individuals the opportunity to take a more active role in shaping their own career paths. Career crafting is when individuals choose anticipating behaviors to improve career-related outcomes by achieving personcareer fit [55]. Those who constantly ruminate on their professional accomplishments are ambitious and motivated to advance their careers. Hence, by emphasizing on proactive career behaviors and competencies, individuals can steer and customize their careers [162].

³ Ludwigsburg University of Education, Ludwigsburg, Germany



^{*}Correspondence: Naglaa Mohamed Diaa nagladiaa@hotmail.com

¹ Business Administration Department, Faculty of Commerce and Business Administration, Helwan University, Cairo, Egypt ² Social Innovation Academy, Quetta, Pakistan

Diaa et al. Future Business Journal (2024) 10:16 Page 2 of 20

In the past, career paths were clear and predictable; however, they are becoming increasingly dynamic and complex, requiring individuals to take control of their careers to be successful in their professional lives [61]. Individuals are responsible for making changes to their professions if they wish to survive and thrive in today's flexible and demanding workplaces. The current rapid changes in the marketplace entail that employees be well-prepared, possess refined capabilities and skills, and be able to meet the needs of their employers; thus, career crafting is essential for their success. [162].

Career crafting is rarely addressed in the academic literature, most empirical evidence based on job crafting; however, it is suggested for practical use [126, 153]. According to Shockley et al. [153], career crafting must be studied alongside other career outcomes variables as career satisfaction and employability. Organizations desire a transition toward soft career development options such as mentoring employees, developing plans for staffs' career development, and employees selfdetermining career crafting options integrated with the objectives and needs of the organizations [149]. This will increase staff retention, human capital, and capacity development of employees, resulting in employees' motivation and satisfaction. When employees engage in the process of career crafting and meet the demanding requirements of their work, it is believed that they are highly committed to their jobs, which is reflected positively in their job attitude [100, 111]. Therefore, career crafting is essential for the development of a positive work attitude, and it has a positive impact on employee engagement and motivation. Accordingly, this study aims to examine the relationship between career crafting, perceived employability, and subjective career success. In addition to, the moderating role of job autonomy in the relationship between career crafting, subjective career success, and perceived employability.

Problem statement

Career crafting is a substantial factor for career success and sustainable employment. Existing literature indicates that engaging in proactive behaviors to develop career competencies has a positive impact on key career outcomes, including job satisfaction and employability [30, 134]. The current body of the literature is insufficient to establish whether career crafting is the underlying cause for increased subjective career success and perceived employability. Furthermore, the factors that influence the relationships between career crafting, subjective career success, and perceived employability are unclear.

Likewise, job crafting is associated with challenging job assignments, improved access to onsite facilities, work engagement, and job performance [145, 164]. Proactive

behaviors in the workplace serve as a guide for employees to engage in appropriate job crafting throughout their professional lives [112]. Career crafting is an emerging concept that emerged from the convergence of job crafting, career competencies, and career self-management [162].

Lastly, up to the best knowledge of the researchers, there is a dearth of research examining the relationship between career crafting, subjective career success, and perceived employability in Pakistani contexts, with job autonomy as a moderating factor. This highlights the significance of conducting further investigations into the concept of career crafting. Furthermore, the concept of career crafting is closely linked to career self-management, job crafting, and professional competences. However, career crafting is separate from these metrics and provides novel perspectives. Consequently, engaging in the research endeavor of career crafting will result in tangible contributions within the realm of career development. Therefore, the research addresses the following questions:

- How career crafting is related to perceived employability and subjective career success in the context of Pakistan?
- 2. Does job autonomy moderates the relationship between career crafting, perceived employability, and subjective career success?

Hence, the study aims to:

- Examine the relationship of career crafting, perceived employability, and subjective career success, and
- Scrutinize the moderation role of job autonomy in the career crafting, perceived employability, and subjective career success relationships.

Literature review

Career crafting

The concept of career crafting is crucial in today's contemporary workplaces. According to Arthur et al. [14], a person's career is the sequence of professional experiences that they have as their lives progress. The nature of a career is constantly changing, intriguing, varying for each individual, and subjective [108]. The traditional view of careers as enduring and certain has lost prominence [92, 115]. According to a survey by [105], over 77% of contemporary employees prefer to manage their own careers, and there will be an increase in career-related movement across organizational and job boundaries. In the light of the increasing exclusion of employees' career development by corporations. There has been a shift toward a proactive approach that encourages individuals

Diaa et al. Future Business Journal (2024) 10:16 Page 3 of 20

to direct their own professional trajectories, which has various positive effects on both the individuals and their organizations [9, 41, 121].

De Vos et al. [54] proposed the term "career crafting," which refers to when individuals engage in proactive career behaviors to achieve individual-career suitability and key career outcomes considering the rapidly changing marketplace dynamics, recent requirements pertinent to employment, and industrial shifts. Proactive behavior is defined as when people take initiative, act to change the status quo for improvement, or decide and take action to make a fresh start [47]. Proactive behaviors include all preplanned actions individuals take that help them achieve their career goals [109, 113, 158].

Similarly, Tims and Akkermans [162] argued that proactive career-self-management behaviors are necessary for achieving individual-career alignment. Career crafting has two dimensions: a) proactive career construction and b) proactive career reflection; the first dimension indicates when employees are engaged in interactions and networking to advance their careers, whereas the second dimension indicates when employees reflect on their careers proactively and pursue the search for motivation and career-relevant skills. Individuals who possess proactive characteristics and abilities are ambitious and motivated to redefine and shape their careers.

According to De Vos et al. [54], the primary proactive behaviors that individuals engage in to nurture the lifespan of their careers are those that pertain to career crafting. Career crafting is developed when job crafting, career competences, and career self-management come together. These concepts promote proactivity in individuals, which are success driver for work and career success [162]. The concepts of job crafting, career competencies, and career self-management are defined as follows: Job crafting is all about the self-initiating behaviors of individuals for the optimization of their jobs with their skills, capabilities, knowledge, and preferences, and certain work aspects are changed by initiating these behaviors by themselves without direct support from others [19]. Career competencies are the set of skills that an individual needs to advance in their career. It is assumed that employees engage in job crafting to establish a good alignment between their personal characteristics and their jobs and that this eventually increases the individual's fitness with a job [165]. For instance, some individuals perform very well when they are given deadlines, while others require clarity and instructions from their supervisors [162].

Second, according to Akkermans et al. [5], career competencies are defined as an employee's set of skills, knowledge, and capabilities that they have mastered, all of which contribute to the employee's career development.

According to Akkermans et al. [8] and Blokker et al. [30], career competencies are the key tools that assist individuals in enhancing their careers, and career competencies positively increase career outcomes such as learning and employability.

Thirdly, self-management of one's career places an emphasis on the individual's capacity to advance his or her professional standing through the adoption of proactive behaviors. Cognitive and behavioral are the two components that make up career self-management. The cognitive component involves the development of awareness and in-depth thoughts dynamically related to an individual's career aspirations, such as the drafting of a career goal and the development of a career plan [57, 59]. On the other hand, the behavioral component assists in the self-initiation of behaviors for an individual's career management, such as the identification of career opportunities and the interaction with others at networking events. According to King [109], career self-management can be exemplified by several behaviors, including promotion of oneself, management of career boundaries, and networking.

Subjective career success

Subjective career success is defined by Arthur et al. [15] as the achievement of the desired work-related outcome over time at any point in a person's professional life. In the past, career success was classified as either subjective or objective. The subjective career success, also known as career satisfaction, refers to an individual's self-assessment of his or her career progress, it is implicit and complex in nature; and it is all about the career perceptions of employees, when they evaluate and respond to it in an excellent manner [131]. While objective career success is directly observable, easily measurable, and verified, it is based on clear goals that can be compared and measured to determine career success, such as salary increases and promotions [2].

In the past, objective career success was the primary focus of career studies, and its main parts included individual achievement and job position in any organization [15, 32]. However, Hall [98] emphasized the importance of the role of career satisfaction in career without borders, which is aimed at the employees' feelings for achieving satisfaction and organizational goals [150]. Furthermore, the research of Shockley et al. [153] reveals additional many facets of a career, such as authenticity, personal life, development, and growth. In turn, subjective career success is distinct from objective career success.

Subjective career success is measured primarily by job and career satisfactions [102]; however, it can also be measured by work-life balance, career fulfillment, and job satisfaction [127, 130]. Al-Hussami et al. [10] state that

Diaa et al. Future Business Journal (2024) 10:16 Page 4 of 20

few studies have been conducted on the subjective career success and limited evidence is available in the literature regarding whether employees' acceptance of change voluntarily is a result of subjective career success. Therefore, it is asserted that subjective career success is more significant than objective career success, and that individuals' inner career satisfaction is a interesting topic in the field of careers, and this study will provide a productive insight.

Perceived employability

Perceived employability refers to an individual's perception of their ability to obtain and maintain employment in the current and future job market [176]. De Vos et al. [60] argue that perceived employability implies that individuals are primarily responsible and key actors for their work and career development. Therefore, perceived employability motivates, guides, and assists individuals to be on the proper career path.

The concept of perceived employability has gained popularity among career practitioners, academics, and recruitment policymakers, as well as other disciplines, including psychology, management, education, human resources, and career development [176]. The increasing job insecurity, multidirectional, and rapidly changing knowledge economy [37] has resulted in the necessity of employability to prepare individuals pursuing challenging career opportunities [75]. On this basis, it is argued that in competitive labor markets and a rising unemployment curve, perceived employability is even more significant [79]. Employability is represented by flexibility, which helps the employed population seek for and obtain job opportunities that may support job mobility within an employer or between organizations. It is referred to as internal perceived employability when individuals change positions within their current organization. In contrast, when employees quit one organization for another, this is referred to as external perceived employability. Both aspects of perceived employability are considered significant for employment [9].

Employability is divided into objective and perceived (subjective) employability. The objective dimension provides information and facts about the professional life of the employed population, such as his/her education status and position in the marketplace. The subjective side is individuals' self-assessment of their abilities to obtain new employment within their organizations or outside. Scholars in the field of employability asserted that, due to the continuous changes occurring in organizations, perceived employability should be given more weight than objective employability [26, 49], as it is likely that individuals will base their decisions and actions on their perceptions rather than on objective truth [171].

Perceived employability produces the desired career outcomes, such as employability leading to lucrative employment opportunities [79], and employee well-being is also related to perceived employability [49]. Therefore, perceived employability not only contributes to employees' professional and personal success, but also to their lifelong learning.

Job autonomy

Job autonomy refers to the degree of independence, discretion, and substantial freedom employees have in planning their work schedules and determining the procedures to be implemented in their jobs [86, 95, 118]. Employees who are skilled, knowledgeable, and able to easily manage their working style can devise appropriate work plans and schedules. It is proposed that autonomous employees in their work are not influenced by centralization in their organizations, and that the degree of freedom and flexibility provided in their jobs enables them to contribute to their organizations, as well as enjoy and be completely engaged in their work [65].

Employees can be valued by allowing them to determine their own work, and they can develop a passion for their job. Employees with a high level of job autonomy are more likely to be risk takers, problem solvers, and fruitful thinkers, which means they are more innovative than other employees [161]. Greater job autonomy leads to improved work and efficiency in organizations, whereas employees with low job autonomy are hesitant to accept risky or challenging assignments because they are aware that their decisions could negatively impact their employment [177].

Previous studies investigated the relationship between job autonomy and psychological outcomes of the employed individuals; lack of job autonomy decreased the workers' personal accomplishments [125], and individuals experience job burnout when they lack job control and face less involvement in decision making [137]. It is argued that negative outcomes may result from the use of technological tools in organizations. Particularly, the negative outcomes associated with stress can be reduced by providing workers a greater degree of job autonomy, allowing them to independently schedule their work, obtain the necessary resources efficiently, and exercise the desired degree of control [42, 146]. The stress level of employees is increased by high job demands, and delegation of job autonomy to employees makes them prioritize job tasks and enables them to manage their mental wellbeing; employees with high levels of autonomy in their jobs take frequent breaks and recover from work-related stress [4]. In the literature, employment autonomy, worklife balance, and workloads are linked to organizational performance [68, 154].

Diaa et al. Future Business Journal (2024) 10:16 Page 5 of 20

Subsequently, job autonomy fosters work-life balance by identifying the boundaries between work and family life, and empirical evidence suggests that employees with high levels of job autonomy are better at resolving conflicts between task priorities and family obligations [13, 141].

Proactive behavior theory

Career crafting is theoretically based on Crant [47] proactive behavior theory. Proactivity or proactive behavior is defined when individuals anticipate any action influencing them personally and/or their surroundings [85]. Crant [47] posited that individuals who take initiatives that changes their current situations or develop new ones are proactive. When employees engage in career planning, they take initiatives or engage in a career-related issues in such a way that they behave in defined directions rather than reacting passively to the forced change [78]. Providing networking opportunities to new staffs should be part of proactive career management [47].

Proactive employees anticipate career development activities such as seeking personal and professional development opportunities, participating in careeroriented initiatives, and altering their lifestyles, whereas those who are not proactive are passive, reactive, and hesitant to change [47]. In other words, proactive behavior is the foundation for career crafting, and individuals with proactive traits will be successful in tailoring their careers over time. Proactivity is significantly associated with job crafting, proactive individuals take initiative regardless of a specific situation, such as responding to an emergency, managing personal relationships, or networking at specific events [19]. Similarly, career crafting is the combination of career development measures to be taken during career transitions to achieve career success. The study by Judith Plomp et al. [134] examined the relationship between proactive personality and employee well-being through the mediation of career competencies and job crafting. The study revealed that proactivity of individuals is not limited to work or career outcomes but is integrated with both concurrently. Employees exhibiting proactive behaviors are continually enhancing their work-related competencies and establishing long-term career success goals. Individuals who are proactive exhibit a high level of creativity and are typically enthusiastic about their work [12]. Career crafting refers to proactive actions that contribute to important career outcomes. Career crafting is categorized as proactive career construction and proactive career reflection [162] and consists of career planning, communication, seeking opportunities for career development, mastering jobrelated skills, and engaging in challenging work tasks.

In the research on proactivity, the focus of proactive actions is distinguished [25]. Proactive behaviors can be directed toward the individual (pro-self), a unit or team (prosocial), or the organization (pro-organizational). In accordance with the empirical work of Tims and Akkermans [162], this study investigates proactive behaviors aimed at achieving individuals' career objectives, or proself-behaviors aimed at obtaining a decent job and having a successful and rewarding long-term career.

Theoretically, career crafting is formed when job crafting, career self-management, and career competencies are combined; however, the integration of these three concepts has not been previously investigated [162]. These three concepts provide us with abundant results in the field of career studies, but their scope is limited, whereas career crafting is comprehensive and provides us with immense scientific insights. In the literature, the concepts of job crafting, career self-management, and career competencies are established independently; however, in empirical studies, they are integrated, for example, job crafting and career competencies [9] and career competencies and career self-management [57, 59]. The currently available literature on these three concepts will aid in exploring and comprehending the nature of career crafting.

Due to the novelty of the concept of career crafting and the lack of empirical data on the relationship between career crafting and key career outcomes, this study is guided by the theory of proactive behaviors and will shed light on proactive personalities, career crafting, and career-related outcomes.

Conceptual framework and hypotheses development

Career crafting and subjective career success

Subjective career success (career satisfaction) is obtained when employees proactively steer the wheel of their careers and anticipate proactive career behaviors, actions, and career planning [162]. Likewise, career competencies, which include capabilities, knowledge, and skill sets relevant to careers, are crucial for increasing the level of subjective career success [5], and career academics have identified planning, communication, and reflection as some of the most essential career competencies that serve as the foundation for career success [162].

According to Chiaburu et al. [43], employees with proactive personality traits demonstrated strong subjective career management behaviors. Similarly, when employees improve their career competencies, they will experience greater job satisfaction [182]. As stated previously, career competencies are a theoretical component of career crafting, and it is believed that career crafting has a positive correlation with career satisfaction.

Diaa et al. Future Business Journal (2024) 10:16 Page 6 of 20

Moreover, career competencies can foster ambition in employees and motivate them to proactively craft their jobs, resulting in subjective career success [9]. Thus, proactive career behaviors such as self-career management, job crafting, motivation, and networking are hypothesized to be associated with a high level of subjective career success. In addition, it is hypothesized that career crafting is positively associated with subjective career success.

H1 Career crafting is positively associated with subjective career success.

Career crafting and perceived employability

Individuals who engage in job crafting will improve their perceived employability skills [162]; when they invest in their own capacity building by completing job responsibilities, this will lead to new career opportunities and help employees evaluate their position on the job market. It is hypothesized that when employees are given demanding job tasks, they are trained in a challenging work environment, and they are led in an effective manner, their employability will increase because they will acquire new skills and expand their thinking ability in the workplace. According to Plomp et al. [136], integrating job challenges and resources into the job crafting process strengthens an individual's capacity to acquire updated information that has been polished as well as generic and networking skills that promote their career flexibility and personal development. Career growth is facilitated when employees set up their working environments so that they may plan, gather resources, and successfully handle obstacles as they arise. According to empirical research, proactive career behaviors by employees are associated with outstanding key work and career outcomes, such as a rise in perceived employability [9, 134]. Additionally, job insecurity has a negative relationship with perceived employability [51]. In contrast, according to Berntson et al. [27], perceived employability has a positive relationship with selfefficacy, career success, work engagement, job satisfaction, organizational commitment, and life satisfaction. Employability is positively correlated with job crafting, according to previous studies [34, 52, 163]. This study will investigate the relationship between career crafting and perceived employability. The literature strongly affirmed that employees with proactive personalities are planning and customizing their careers and it develops their employability qualities. Based on this empirical evidence, it is assumed that career crafting will have a positive impact on perceived employability.

H2 Career crafting will be positively associated with perceived employability.

Job autonomy and subjective career success

Job autonomy is crucial for attaining subjective career success [143], and it increases individual-career fitness. Individual-career fit refers to the compatibility and alignment of an individual's career experiences with his or her skills, values, and talents [133]. Career autonomy helps employees make changes in their careers by enabling them to make the desired choices and achieve career compatibility, which in turn increases their subjective career success [46]. This is because when employees pursue careers that are aligned with their self-perceptions, they experience satisfaction and achieve career outcomes that are personally significant to them [133].

High job autonomy promotes employee sense of work responsibility and employee empowerment [95], whereas low job autonomy results in passive attitudes and low employee engagement [77]. This implies that employees' lack of interest in their employment because of low job autonomy may result in career dissatisfaction.

The relationship between job autonomy and subjective career success has received little scholarly attention; consequently, little is known about it. However, the relationship between career autonomy and subjective career success has been demonstrated by the research of Colakoglu [46]. Therefore, it is hypothesized that there are positive associations between job autonomy and subjective career success.

H3 Job autonomy will be positively associated with Subjective Career Success

Job autonomy and perceived employability

Employees with a high degree of job autonomy are likely aware of their responsibility for the issues they face on the job and those that affect their employment outcomes [53]. The freedom on the workplace empowers employees and affords them the chance to develop employability skills. It is assumed that the job mainly connect individuals with its employers, it is crucial to focus on the contexts of the job in which they are working [80], and job autonomy is considered a crucial job characteristic [48], and it has the capability to influence proactivity of individuals [91, 167].

The literature suggests that job autonomy is one of the most prevalent resources of employment [73], implying that when employees possess a high level of job autonomy, they have the opportunities and resources to improve their employability skills and can make decisions to improve employment conditions. Job autonomy is inevitable, particularly when job responsibilities are

Diaa et al. Future Business Journal (2024) 10:16 Page 7 of 20

developed and delegated to employees. Creating autonomous conditions for the working population is extremely advantageous, as it increases their proactivity and interest in their employment, as well as lowering the turnover rate [80]. Instead of focusing solely on organizational achievements and ignoring employees' career aspirations, employers should provide autonomy to their employees and collaborate with them for their career development in the face of a continuous increase in uncertain market changes [23].

The relationship between job autonomy and perceived employability has not been thoroughly explored in the literature, and this research is intended to address the gap and discover if job autonomy impacts the relationship of perceived employability; therefore, it is hypothesized that job autonomy will have a positive relationship with perceived employability.

H4 Job autonomy will be positively associated with perceived employability.

Job autonomy as moderator

The literature suggests that individuals with high job autonomy have greater freedom, discretion, and the ability to design their careers based on their unique preferences, needs, and talents [66, 67, 180].

Job autonomy is anticipated to be an important contextual factor to define proactive behaviors of employees for their engagement in work [80], and individuals with proactive skills can utilize job autonomy to manage the required professional skills [53]. Further, job autonomy is studied as a contextual variable in many career- and work-related studies; for instance, [39, 80, 140, 181] studied the moderation effects of job autonomy in their scientific studies.

Furthermore, job autonomy improves one's job through top-down processes, giving employees more freedom, power, and discretion, as well as a sense of mastery to accomplish their career objectives [17, 39, 83, 119, 120]. Career objectives vary from individual to individual and it is implicit in nature, and some may look for objective career success, while others may seek career satisfaction. Employees' self-determination to maintain career trajectories and achieve career goals is likely to be enhanced by engaging in in self-initiated actions such as job crafting [64, 69, 83, 87, 118]. Based on the literature, job autonomy promotes self-initiative, proactive behavior, and it has facilitative role for employees career development, because without freedom in their jobs they have limited exposures and chances of professional growth may decreased. It is assumed that job autonomy influences the positive relationship of career crafting, perceived employability, and subjective career success and the following two hypothesis are posit:

H5 Job autonomy will moderate the relationship between Career Crafting and subjective career success

H6 Job autonomy will moderate the relationship between Career Crafting and Perceived employability

Accordingly, Fig. 1 depicts the research model of the present study.

Method

Purpose and context of the study

This study aimed to examine the relationship of career crafting with key career outcomes, i.e., subjective career success and perceived employability as well as the moderating role of job autonomy in Pakistan. It is posited that

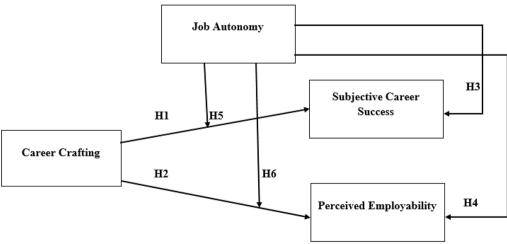


Fig. 1 Research model

Diaa et al. Future Business Journal (2024) 10:16 Page 8 of 20

career crafting is inevitable topic which has relevancy across all industries and occupations [162]. With the aim of attaining better understanding of career crafting, the data were collected from employees who are working across various organizations and sectors.

The study is guided by positivism approach which explores social phenomenon by using quantitative approach, selecting the appropriate participants and achieving the generalizability of the study results [124].

Sample size is identified using G-power software [72], and for social and business sciences, it is recommended [97]. According to the study model, the G-Power calculated 107 sample size using the instructions given by Memon et al. [128]. Surveys were distributed and 224 responses were received online using Google Forms from targeted respondents.

Data collection procedure

Research survey is created using Google Forms and carefully reviewed for any kind of errors. 30 samples were used in a pre-test to verify that the questionnaire is appropriate and usable for this study. Afterward, the research questionnaires were distributed online to individuals employed in Corporate, Government, NGO/ INGO, Education, Banking, and other sectors. The target respondents are working in geographically different locations and organizations, and they cannot be reached physically due to the scarcity and limitedness of resources. Respondents were informed beforehand that their data will be strictly remain confidential and solely used for research purposes. The research survey was sent to the participants through emails, personal messages and social networks (Facebook, WhatsApp, and LinkedIn). After receiving their responses, the data were inserted in in MS excel and SPSS for data analysis.

Measures

Data were collected using structured questionnaires, and 5-point Likert scales were employed to rate the responses ranging from strongly agree=5 to strongly disagree=1. All the construct items were adopted from scholarly research. Items were adapted to fit the criteria of the study. The questionnaires consisted of five sections, the first section consisted of questions about the demographics profile such as age, gender, qualification, job experience, and job sector. The second section consisted of questions about the career crafting adopted from [162]. The construct of career crafting has 8 items and sample items are "I set goals for where I want to be one year from now" and "I create an overview of my talents and competencies," section three includes questions about perceived employability and measured by 4 items, the scale

is adopted from [62] in the current study, and it is successfully employed in other research studies in various employment contexts [93, 173]. Section five consisted of questions about subjective career success, and it was measured, using Greenhaus and Callanan [88] career satisfaction scale. The scale consists of 5 items, and the sample item is "I am satisfied with the success I have achieved in my career."

Results and data analysis

Sample characteristics

This section includes demographic profile of the respondents covering five variables: gender, age, qualification, work experience, and job sector.

Table 1 indicates that 60% of respondents who participated in the current study are male and 40% are female. Half of the respondents aged between 26 and 33 years old for 50.2% while few responses received from respondents who are 50 years old or above only 1%. Work experience is an important factor for this study, to understand career satisfaction along other study variables succinctly. Table 1 shows that the highest number of responses which corresponds to 55% received from professionals who are having 1–5 years of experience, while individuals who are having 16–20 years of experience relatively responded less corresponding to 5.3%.

Qualification is another factor considered for data analysis, and Table 1 shows that more than half of the

Table 1 Sample characteristics

Variable	Dimensions	Frequency	Percent
Gender	Male	126	60.3
	Female	83	39.7
Age	20 Years and Below	4	1.9
	21–25 years	46	22.0
	26–33 years	105	50.2
	34–41 years	44	21.1
	42–49 years	8	3.8
Qualification	Intermediate	5	2.4
	Bachelors	60	28.7
	Masters	136	65.1
	PhD	8	3.8
Job Experience	1–5 Years	116	55.5
	6–10 Years	46	22.0
	11–15 Years	29	13.9
Job Sector	Corporate	54	25.8
	Government	34	16.3
	NGO/INGO	39	18.7
	Education	61	29.2
	Banking	21	10.0

Diaa et al. Future Business Journal (2024) 10:16 Page 9 of 20

respondents are holding master's qualification 65%, whereas few respondents are having intermediate (high school).

Work experience is an important factor for this study, to understand career satisfaction along other study variables succinctly as indicated in Table 1 that the highest number of responses which corresponds to 55% (116 responses), received from professionals who are having 1–5 years of experience, while individuals who are having 16–20 years of experience relatively responded less corresponding to 5.3% (11 responses).

Job sector was also considered as an important aspect to gain empirical insights about career crafting process and career satisfaction of those who are working in different type of industry or sector [162]. Table 4.7 indicates that 54 employees (25.8%) from corporate sector, 34 employees (16.3%) from government institutions, 39 employees (18.7%) from NGOs/INGOS, 61 (29.2%) employees from Education and 21 employees (10%) from banking sector filled the research survey. The highest number of responses were received from education sector (Schools, Colleges, and University) sector, whereas few responses were received from banking sector.

Descriptive statistics

Table 2 represents descriptive statistics, which provide information about constructs lowest and highest values of responses obtained on Likert scale, and it also includes variable values for mean and standard deviations. As shown in Table 2, career crafting has 4.67 mean (SD=0.80) which is the highest value for mean value in the data set, whereas, for dependent variables, i.e., subjective career success and perceived employability, the mean values are 3.6(SD=0.90), 3.5(SD=0.91), respectively. And the moderating variable, i.e., job autonomy, has mean value of 3.23(SD=0.96).

Normality test

The normality of the data is tested by checking the skewness and kurtosis values of variable scales. The values of skewness are ranged between (-0.237, -0.587),

Table 2 Descriptive statistics

Variables	n	Minimum	Maximum	М	SD
Career Crafting	209	2.25	6.00	4.67	.80356
Subjective Career Success	209	1.20	5.00	3.60	.90846
Perceived Employability	209	1.50	5.00	3.53	.91905
Job Autonomy	209	1.00	5.00	3.23	.96301

M mean, SD standard deviation, n sample size

and the values of kurtosis are ranged between (-0.403, 0.061). These values are within the range of cutoff criteria i.e., ± 1.96 [148], and the data are normally distributed (Table 3).

Reliability

For assessing the internal consistency of the scales, the Cronbach's alpha value is recommended to be equal or higher than 0.70 [132]. Table 4 indicates that the Cronbach's alpha values are higher than the minimum threshold and it is posited that the internal consistency (reliability) is conducted.

Correlation analysis

Correlation analysis is used to determine the positive or negative association between study variables. Pearson's correlation analysis is widely used for identifying the linear relationship between constructs. The correlation coefficient values are ranged between -1 and +1. The positive association between variables is indicated by positive values and level of significance, and negative association between variables is indicated by negative values and level of significance [110].

Table 5 shows that career crafting has positive and significant relationship with subjective career success (r=0.419, P<0.001) and it also shows that career crafting has a positive and significant relationship with perceived employability (r=0.339, P<0.001).

Table 5 indicates that job autonomy also has significant positive relationship with subjective career success (r=0.421, P<0.001) and job autonomy has significant positive relationship with perceived employability (r=0.405, P<0.001).

Table 3 Normality test

Variable	Skewness	Kurtosis
Career crafting	587	.061
Subjective career success	444	403
Perceived employability	238	779
Job autonomy	237	473

Table 4 Cronbach's alpha value

Variable	No. Items	Cronbach's alpha	
Career Crafting	8	.824	
Subjective Career Success	5	.889	
Perceived Employability	4	.835	
Job Autonomy	9	.919	

Diaa et al. Future Business Journal (2024) 10:16 Page 10 of 20

Table 5 Correlation matrix

Variables	1	2		4
1. Career crafting	1			
2. Subjective career success	.419**	1		
3. Perceived employability	.339**	.405**	1	
4. Job autonomy	.277**	.421**	.296**	1

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

Confirmatory factor analysis

Confirmatory factor analysis (CFA) is used for testing the relationships of different kind of variables, i.e., independent, dependent, and others. CFA is a special type of structural equation modeling (SEM) and aimed to determine the fitness of measurement model before employing regression of latent variables [169]. The developed scales are adopted in this study, and CFA was run to check the validity of adopted scales (Table 6).

The reliability of the study variable in SEM is examined through composite reliability (CR), whereas the convergent and discriminant validity of variables is measured through AVE and MSV [96]. The variables reliability and validity was examined using master validity tool developed and recommended by Gaskin and Lim [81]. The values of CR of all four study variables ranged from 0.786 to 0.918, and these values higher than the minimum recommended threshold value, i.e., 0.6, recommended by Fornell and Larcker [74]. AVE determines convergent validity of variables [155], and the values of AVE of all constructs are examined and were found above the general given criteria, i.e., 0.5, except for value of CC (Career Crafting) variable. Lam [117] and Fornell and Larcker [74] posited that the values of AVE may examine the measurement model validity strictly and the researcher may decide the convergent validity of variables based only on CR values. Moreover, in his empirical study, the AVE value of CC, i.e., 0.350, will be maintained. Discriminant validity is assessed when the estimate values (diagonally presented in the table) are similar to square values (SQRT_AVE) of every construct [74], and the estimates values are higher than the values of its squares (AVE values) and discriminant validity is conducted [96].

Assessment of model fit

The measurement of the model fitness is specified using empirical statistics, which includes CMIN/DF, CFI, SRMR, and RMSEA [103]. The CFA results are recommended to be within the ranges defined principally below:

- Chi-square value—CMIN/DF < 5 [160]
- Comparative Fit Index—CFI≥0.90 [103]
- Root Mean Square Residual—RMR≤0.08 [103]
- Root Mean Squared Error of Approximation— RMSEA < 0.06 [103]

Table 7 indicates that the estimate values of chi-square, CFI, SRMR, and RMSEA fulfill the requirements of the cutoff criteria [81] and indicates fitness of the measurement model (Fig. 2).

Hypotheses testing

Table 8 shows the results of hypotheses testing. The constructs were standardized through Z score method in SPSS, and then, proposed hypotheses were examined in AMOS 23.0.

H1 predicted that career crafting will have positive relationship with subjective career success, the results supported hypothesis 1 and it is evident that career crafting has significant positive relationship with subjective career success ($\beta = .339$, p < 0.000).

H2 proposed that career crafting will have positive relationship with perceived employability. Results indicated that career crafting has positive and significant

Table 7 Model fit assessment

Measure	Estimate	Threshold	Interpretation
χ^2	525.358		
DF	266		
CMIN $\chi 2$ /DF	1.975	Between 1 and 3	Excellent
CFI	0.903	> 0.95	Acceptable
SRMR	0.074	< 0.08	Excellent
RMSEA	0.068	< 0.06	Excellent

Table 6 Reliability and validity

	CR	AVE	MSV	MaxR(H)	JA	СС	scs	PE
JA	0.918	0.555	0.211	0.920	0.745			
CC	0.786	0.350	0.176	0.803	0.233**	0.418***		
SCS	0.889	0.620	0.229	0.916	0.459***	0.787	0.889	
PE	0.835	0.563	0.229	0.862	0.348***	0.479***	0.419***	0.751

The bold values on the diagonal are the squareroot of the AVE assessing the discriminant validity of the construct

 $\textit{CR}\ composite\ reliability}, \textit{AVE}\ average\ variance\ extracted}, \textit{MSV}\ maximum\ shared\ variance}, \textit{MaxR(H)}\ maximum\ reliability}$

Diaa et al. Future Business Journal (2024) 10:16 Page 11 of 20

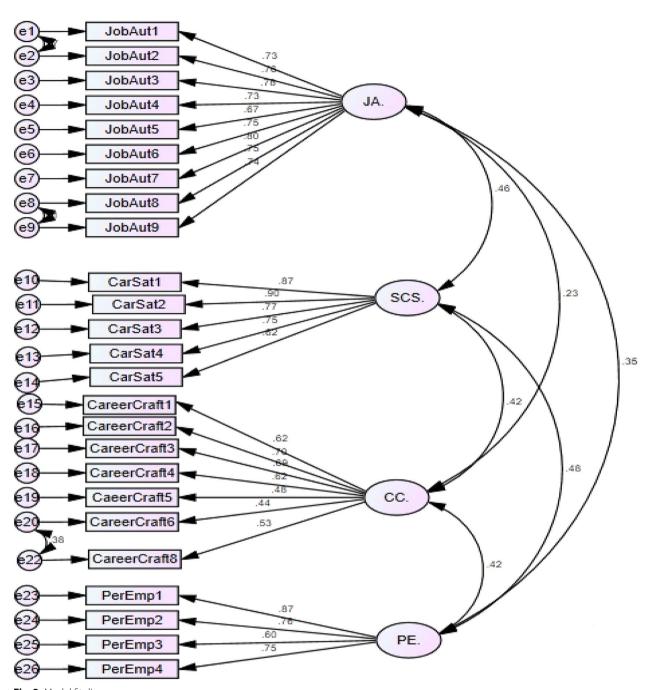


Fig. 2 Model fit diagram

relationship with perceived employability ($\beta = 0.260$, p < 0.000).

H3 proposed that job autonomy will have positive association with subjective career success and the hypothesis is supported (β = 0.319, p < 0.000).

H4 predicted that job autonomy has positive relationship with perceived employability, the result shows that job autonomy has positive and significant positive association with perceived employability ($\beta = 0.236$, p < 0.000).

H5 predicted that job autonomy will moderate the relationship of career crafting and subjective career success; for example, this relationship will be stronger when job

Diaa et al. Future Business Journal (2024) 10:16 Page 12 of 20

Table 8 Hypothesis testing

Hypotheses	Estimate	S.E.	C.R.	Р	Decision
ZCC → SCS	.339	.063	5.358	***	Supported
ZCC → PE	.260	.068	3.827	***	Supported
ZJA → SCS	.319	.063	5.052	***	Supported
$ZJA \rightarrow PE$.236	.068	3.475	***	Supported
CC*JA → SCS	.043	.059	.730	.465	Not Supported
CC*JA → PE	070	.063	- 1.107	.268	Not Supported

^{***} P<0.001

CC career crafting, SCS subjective career success, PE perceived employability, JA iob autonomy

autonomy is high than when job autonomy is low. The interaction term of career crafting and job autonomy was non-significant (β =0.043, p=0.465), and the hypothesis was not supported in this study.

H6 proposed that job autonomy will moderate the relationship of career crafting and perceived employability such that this association will be stronger when job autonomy is high than when job autonomy is low. The interaction term of career crafting and job autonomy was non-significant (β = – 0.070, p=0.268), and the hypothesis was not supported (Fig. 3).

Discussion

The empirical evidence in the literature indicates that career crafting is the behavior of an individual that ensures career sustainability over time. Career crafting is a relatively new concept that has not been thoroughly investigated in the literature. In the current study, the empirical relationship between career crafting and other key career outcomes, such as career satisfaction and perceived employability, is examined.

In regards the first hypothesis, it was supported, and the results revealed that there is a positive relationship between career crafting and subjective career success. The results are in line with [9, 54] who confirmed that when employees engage in career crafting activities in advance, they will achieve success in their jobs and ultimately in their careers. And individuals who are responsible for crafting and redefining their careers effectively manage their career success [57, 59], in addition to King [109] who asserted that proactive career behaviors lead the employed individuals to achieve both life and career success. The results are also aligned with Tims and Akkermans [162] who found the clear positive relationship of career crafting with subjective career success and they maintained that career-related competencies such as communicating, planning, and career reflection are the leading factors for obtaining successful careers. Moreover, previous studies show that career competencies lead to career success [114] and career satisfaction [70].

Similarly, the second hypothesis was supported and the results indicate that career crafting has positive relationship with perceived employability confirming that employee who engage in career crafting process, and those who are looking into their careers proactively, will gain enhanced perceived employability skills and they will be able to make transitions in their careers within their organizations (internal perceived employability) or outside their organizations (external perceived employability). The results are in line with the study of De Vos et al. [58] which showed that when employees partake in career crafting process, it will yield intended career results, such as career success and employability. Furthermore, individual's job crafting actions enhance employability, and these job crafting actions include pursuing challenging job assignments, investing in

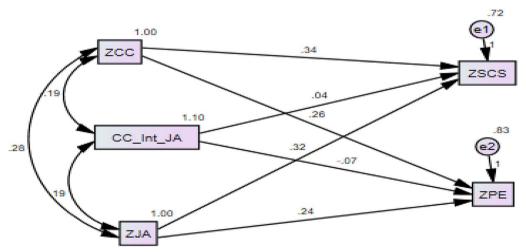


Fig. 3 Variables' interaction

Diaa et al. Future Business Journal (2024) 10:16 Page 13 of 20

self-capacity development related to his/her job, having access to learning opportunities and all these must add value to individuals' employability in the marketplace [76]. Career competencies and perceived employability are positively related; when employees are aware of what they seek in their careers, they are enabled to take help of career mentors and they can find the right career opportunities, they will eventually enhance both their external and internal employability qualities [6]. Moreover, the literature provides ample insights on positive relationship of increasing job resources, demanding job assignments and employability [7, 34, 135, 163]. Similarly, Lysova et al. [122] also supported the results as they proved in their study the positive link between crafting actions for career development and perceived employability.

In terms of the job autonomy and subjective career success, the third hypothesis is also supported, and the results of the current study indicated that that job autonomy has positive relationship with subjective career success. Similarly, in the study of Colakoglu [46] the relationship of career autonomy and subjective career success was examined and it was find that career autonomy plays a crucial role in obtaining subjective career success also referred as career satisfaction.

It can be explained that high career autonomy allows individuals to develop and steer their careers to achieve individual-career fit, resulting in increased career satisfaction. This is particularly important for employed individuals with dual careers. Individuals with career autonomy can avoid obstacles in their careers and pursue their aspirations efficiently. Additionally, having a certain degree of workplace freedom allows them to make work assignment-related decisions independently, resulting in subjective career success.

The fourth hypothesis is confirmed, and the results indicate the positive association between job autonomy and perceived employability. The literature indicates that autonomy enhances employees' responsibility for their job assignments, feedback enhances the usefulness of employees knowledge related to their work activities and the variety of work is perceived more meaningful[95], and it is argued that autonomy, variety, and feedback, these three altogether referred as job resources, have positive association with extrinsic and intrinsic job opportunities which ultimately create positive link with perceived employability [172], whereas the extrinsic job opportunities are the tangible compensations and benefits and intrinsic job opportunities are referred to development and growth of employees. Moreover, the association between resources (autonomy, feedback, and variety) and perceived employability can be comprehended further from empirical studies of job demands resources (JD-R) [18]. The perception of high level of job autonomy may help the employees to have the attention and trust of their organizations' top management. And the commitment of the management is continued by providing the necessary skills and knowledge to their employees so they can maintain their employability [129, 166]. Lastly, a recent longitudinal study [174] conducted among 238 Dutch gastroenterologists, and the findings of the study indicated that high level of job autonomy is associated with employability, in contrast, low level of job autonomy and increased quantity of workload negatively affect employability.

In regard to the moderation of job autonomy, Hypothesis 5 and Hypothesis 6 stated that job autonomy will moderate the association between career crafting and subjective career success and association between career crafting and perceived employability, both hypotheses are not supported, and the crucial reasons are explored and discussed.

It is argued that the findings of the relationships of career constructs with regard to individuals and organizations behavioral outcomes may produce different results, contingent upon the differences of the cultural contexts and organizational settings in which the empirical study is conducted [138]. It is explored that employees' high priority is to achieve high objective career success, i.e., raise in salary and promotion, and they pay less attention toward their career development to enhance their subjective career success.

Second, every employee works in different managerial level and has unique career objectives and some organizations are adversely affected by changes due to worldwide economic crisis. Job autonomy can facilitate individuals career success and employability but it is not the case to moderate the relationship of career crafting activities, career satisfaction, and perceived employability and it is argued that career management is the sole responsibility of individuals [36].

Third, job autonomy is considered organizational resource [45]; however, employees may not able to have access and utilize this resource well and it is imperative that individuals must engage in proactive career behaviors [162] for achieving their career success and employers may not support in career development of their employees. And employees are expected to take the responsibility of their own professional grooming, and individual will be influenced with regard to the initiative and efforts made for career advancement and they will attain subjective career success accordingly [22].

Fourth, employees working in the public/government sector organizations in Pakistan rarely resign from their jobs and they serve until retirement. The government organizations provide high job security, but employees lack proper career development plans, and it is explored

Diaa et al. Future Business Journal (2024) 10:16 Page 14 of 20

that they show indifference whether they provided with job autonomy or not, to take initiatives for their career success. Moreover, in the field of education, individuals are competing to obtain highest academic achievements, i.e., research publications and high qualifications such as PhD which makes the career objectives of every individual's different and organizations are unable to meet the unique career success demands of every individuals, rather it becomes the responsibility of the individuals to steer their careers successfully and this may not require to take assistance of job autonomy for their career development.

Moreover, the rapid technological advancements taking place in the worldwide industrial sector have caused concern among employees regarding their ability to maintain employment, as organizations may implement staff reduction policies [44]. There can be divergent viewpoints between employers and employees. Employers may expect employees to remain with the organization solely by honing their job-related competencies; employees, on the other hand, may seek employment with other organizations that offer higher salaries and benefits [60]. This heightened situation is commonly referred to as the "ongoing war for talent," which signifies the concerns of employers and is also called the management paradox [50], and the organizations may desire to enhance the career competencies of their employees, but these organizations also speculate the risk that their trained staffs will join their competitors before the invested value is recovered. The management paradox is existed everywhere before career practitioners but it is not studied nor confronted in the literature [60]. Furthermore, organizations are in quandary whether to assist their staff in career development and enhance their employability skills, this is because they are concerned that their trained value HR capital may be attracted by the competitors [21]. And it prevalent that job autonomy may not moderate the relationship of the variables.

Individuals employed in NGOs/INGOs polish their job relevant competencies, and they transit to other organizations when they are offered higher compensation and perks or they shift to big cities for having exposure to vast career opportunities. It is known that many organizations in development sector do not provide a promising working environment which include work independence and interrupted work-life balance (due to heavy workload), whereas employees in the corporate sector receive market competitive salaries and they can enhance their careers and their employability skills [71], but these companies have strict objectives and deliverable to be achieved timely which may cause the employees to not give proper attention to their careers and they may

also not receive the work freedom they need for important on-job achievements.

Overall, the raising unfavorable circumstances further intensify employees job insecurity, and their perceptions may adversely change both by organizational and environmental causes [94] and therefore employees shall act proactively. The increasing shifts taking place in all spheres including technology, economy, and business workplaces, influencing the industries strongly to make amendments to its policies and recruit skilled workforce having expertise in their field of work and organizations are directed to come with sustainable solutions mutually beneficial both for the employed populations and organizations. In this way employers will sustain their valued human capital and employees will have the opportunity to work on their career development by availing training and development opportunities, receive employment benefits, and ultimately achieve their career success [22, 71].

Managerial implications

The current study provides significant empirical insights to the existing literature and fills an essential research gap. Examining the concept of career crafting, which is a newly established concept developed by Tims and Akkermans [162]. Few empirical studies are conducted on career crafting due to the novelty of the concept and the theoretical assumptions that may necessitate additional research to broaden its scope. This study investigated the relationship between important predictors, such as career crafting [162] and job autonomy [33], and important career outcome variables, such as subjective career success [89] and perceived employability [62]. The study provided significant support for the positive association between the predictive variables and key variables of career outcomes from a theoretical aspect, career crafting is a component of proactive behaviors or proactivity theory [162]. And career crafting is comparable to a comprehensive set of planned actions that reflect proactive career behaviors and lead to significant careerrelated outcomes. People can alter their circumstances through proactive planning and action [38]. Therefore, [24] is the first to propose the concept of "proactive behavior," which asserts that individuals can influence their surroundings through their proactive actions. Proactive individuals are conscious of upcoming risk and protect their careers through concise planning and timely action, they examine career opportunities and take initiative to attain their career development objectives. Those who are not proactive, on the other hand, are reactive and act on passive behaviors and attitudes; they wait for changes to occur and falsely believe that

Diaa et al. Future Business Journal (2024) 10:16 Page 15 of 20

career opportunities will appear on their doors; consequently, they fall behind the success curve.

Thus, the current study has imperative contribution to proactivity theory that individuals opting career crafting actions will be succeeded in achieving both subjective career success and perceived employability skills.

This study provides valuable empirical evidence that enables organizations to retain and support valuable human capital by enhancing employees' core competencies and appropriate skill sets, thereby obtaining a competitive advantage. It is insightful for today's managers working in diverse and multicultural settings and provides information on how individuals can take responsibility for their career development and ensure the sustainability of their careers.

It is crucial to incorporate career crafting practices. Facilitating employees' career development and career satisfaction may appear to be a challenge for organizations [22], but it is emphasized that organizations should choose a people-oriented approach over an authoritarian one [23]. In this way, organizations will be able to recruit and retain talented and skilled employees, however, the career choices that individuals make can have an adverse impact on the organization's ability to attract and retain new talent as well as employees' performance [56].

Moreover, professionals from a variety of disciplines and workplaces can obtain enlightening information regarding the various career aspects. They are able to implement effective strategies, such as participating in proactive career behaviors, such as networking, enhancing work-related abilities, and consistently searching for career development opportunities. When employees make informed decisions and invest in their personal and professional development, they attain career success. Individuals must independently craft their professions to achieve success [54].

This empirical research aids career practitioners and academicians for practical applications and provides guidance for organizations to develop strategies to support employees' career planning that is aligned with their visions and objectives. Career crafting research will enable organizations to improve their employability strategies, particularly in the post-COVID-19 era, when job security is tenuous [31]. Additionally, the research highlights employability skills that can be extremely beneficial for obtaining or retaining employment.

Employers are advised to include a career development component in their HR framework in order to create a friendly environment for their employees, as career development reduces negative outcomes such as underemployment and promotes positive outcomes such as increased employability skills and employee engagement [6].

When employees attain a high level of subjective career success, they will experience high levels of job motivation, goal achievement, and self-confidence [1], which will increase their productivity. Organizations must consider the career satisfaction of their employees by providing opportunities for career reflection and goal attainment. Employers invested few resources in employees with inadequate capabilities [131], but in today's competitive and ever-changing work environment, organizations must develop customized and sustainable solutions (career plans) for their employees in order to retain their loyalty and motivation.

Lastly, Kuvaas [116] posits that organizations can assist their employees in developing their work-related competencies by incorporating HR practices [9] which assert that the improvement of these competencies can become a crucial element of performance evaluation or connected to an organization's planning for the career development of its employees, reflecting their commitment and career satisfaction. Practitioners and HR policymakers should amend employee-oriented organization policies, such as considering and meeting employees' career needs assessment and requirements.

Limitations and future research directions

The study guides readers and researchers to new empirical findings regarding career crafting and significant career outcomes; nevertheless, some limitations in the current study are highlighted.

First, the research was conducted among professionals employed in various fields as suggested by Tims and Akkermans [162], and future researchers might select professionals from a specific field or industry, such as the education sector or the sector of non-governmental organizations.

Second, it was assumed that job autonomy may moderate the positive association between career crafting and subjective career success and similarly it may moderate the positive relationship of career crafting and perceived employability. But in this research context and geographical and cultural setting this assumption is not supported empirically. This can be explored in the future research to comprehend the unknown factors which led to this result.

The current study did not undertake the relationship of mediating variable with the study variables, and future research may consider the mediating variables into account to understand the dynamic nature of career crafting [162]. Career shocks is one of the contextual variables which may influence the study outcomes [151]. Resilience and adoptability may also be studied in addition to career shocks in career studies because some employees may leave career crafting behaviors,

Diaa et al. Future Business Journal (2024) 10:16 Page 16 of 20

while others may continue it. Additionally, other essential contextual variables can be included in the study, for instance, the role co-worker support or the role of supposal support which can help in enhancing proactive behaviors. The researchers may choose these contextual variables in the career crafting study.

Conclusion

Individuals make numerous significant career-related decisions over the course of their lives, during which they must maintain and improve their career competencies and sustainability to attain career identity, adoptability, and overall career success. The process of career crafting holds great importance in terms of nurturing both professional and personal development, enhancing job satisfaction, and achieving career success.

The main goal of this study was to explore the relationship of career crafting, subjective career success and perceived employability in Pakistan, Additionally, the study aimed at examining the moderating effect of job autonomy on the relationship between career crafting, subjective career success, and perceived employability. The results indicate that career crafting and job autonomy has significant and positive relationships with perceived employability and subjective career success. The study supported the proactive behavior theory of Crant [47]. Further, it provides comprehensive insights to understand career crafting mechanisms and dynamics for making correct career-related decisions. The empirical findings of the present study indicate that career crafting plays a significant role in attaining high employability skills and increased subjective career success.

Abbreviations

CC Career crafting

SCS Subjective career success PE Perceived employability

JA Job autonomy

NGO Non-government organization

INGO International non-government organization

SEM Structural equation modeling
CFA Confirmatory factor analysis
AMOS Analysis of moment structures
SPSS Statistical package for social sciences

Acknowledgements

Not applicable.

Author contributions

All authors have contributed to the work, have read the manuscript, verified the validity of the data and their interpretation, and agreed for publication of this manuscript.

Funding

No funding was received from any organization for this paper.

Availability of data and materials

The datasets used and/or analyzed during the current study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

Not applicable

Consent for publication

This statement is to certify that all authors have seen and approved the manuscript being submitted. We warrant that the article is the authors' original work. We warrant that the article has not received prior publication and is not under consideration for publication elsewhere.

Competing interests

The authors declare that they do not have any competing interests associated with this publication.

Received: 19 November 2023 Accepted: 12 January 2024 Published online: 27 January 2024

References

- Abele AE, Spurk D (2009) The longitudinal impact of self-efficacy and career goals on objective and subjective career success. J Vocat Behav 74(1):53–62
- Abele AE, Wiese BS (2008) The nomological network of self-management strategies and career success. J Occup Organ Psychol 81(4):733–749
- Abidi SM, Malik AA (2020) Career assessment in pakistan: current Scenario. New Horiz 14(2):255
- Ahuja MK, Thatcher JB (2005) Moving beyond intentions and toward the theory of trying: effects of work environment and gender on postadoption information technology use. MIS Quart, pp 427–459
- Akkermans J, Brenninkmeijer V, Huibers M, Blonk RW (2013) Competencies for the contemporary career: development and preliminary validation of the career competencies questionnaire. J Career Dev 40(3):245–267
- Akkermans J, Brenninkmeijer V, Schaufeli WB, Blonk RW (2015) It's all about CareerSKILLS: effectiveness of a career development intervention for young employees. Human Resour Manage 54(4):533–551
- Akkermans J, Kubasch S (2017) Trending topics in careers: a review and future research agenda. Career Dev Int
- Akkermans J, Paradniké K, Van der Heijden BI, De Vos A (2018) The best of both worlds: the role of career adaptability and career competencies in students' well-being and performance. Front Psychol 9:1678. https:// doi.org/10.3389/fpsyg.2018.01678
- Akkermans J, Tims M (2017) Crafting your career: How career competencies relate to career success via job crafting. Appl Psychol 66(1):168–195
- Al-Hussami M, Hammad S, Alsoleihat F (2018) The influence of leadership behavior, organizational commitment, organizational support, subjective career success on organizational readiness for change in healthcare organizations. Leadersh Health Serv 31(4):354–370. https:// doi.org/10.1108/LHS-06-2017-0031
- Alarcon GM (2011) A meta-analysis of burnout with job demands, resources, and attitudes. J Vocat Behav 79(2):549–562
- Alikaj A, Ning W, Wu B (2021) Proactive personality and creative behavior: examining the role of thriving at work and high-involvement HR practices. J Bus Psychol 36(5):857–869
- Allen J, Balfour R, Bell R, Marmot M (2014) Social determinants of mental health. Int Rev Psychiatry 26(4):392–407
- Arthur MB, Hall DT, Lawrence BS (1989) Generating new directions in career theory: the case for a transdisciplinary approach. Handbook Career Theory 7:25
- Arthur MB, Khapova SN, Wilderom CP (2005) Career success in a boundaryless career world. J Organ Behav 26(2):177–202
- Arthur MB, Rousseau DM (1996) A career lexicon for the 21st century. Acad Manag Perspect 10(4):28–39
- Aryee S, Tan K (1992) Antecedents and outcomes of career commitment. J Vocat Behav 40(3):288–305

- Bakker AB, Demerouti E (2007) The job demands-resources model: State of the art. J Manag Psychol 22(3):309–328. https://doi.org/10.1108/ 02683940710733115
- Bakker AB, Tims M, Derks D (2012) Proactive personality and job performance: the role of job crafting and work engagement. Human Relations 65(10):1359–1378
- Ballout HI (2007) Career success. J Manag Psychol 22(8):741–765. https://doi.org/10.1108/02683940710837705
- Baranchenko Y, Xie Y, Lin Z, Lau MCK, Ma J (2020) Relationship between employability and turnover intention: the moderating effects of organizational support and career orientation. J Manag Organ 26(2):241–262
- Barnett BR, Bradley L (2007) The impact of organisational support for career development on career satisfaction. Career Dev Int 12(7):617– 636. https://doi.org/10.1108/13620430710834396
- Baruch Y (2006) Career development in organizations and beyond: balancing traditional and contemporary viewpoints. Hum Resour Manag Rev 16(2):125–138
- 24. Bateman TS, Crant JM (1993) The proactive component of organizational behavior: a measure and correlates. J Organ Behav 14(2):103–118
- Belschak FD, Den Hartog DN (2010) Pro-self, prosocial, and proorganizational foci of proactive behaviour: differential antecedents and consequences. J Occup Organ Psychol 83(2):475–498
- Berntson E, Marklund S (2007) The relationship between perceived employability and subsequent health. Work Stress 21(3):279–292
- Berntson E, Näswall K, Sverke M (2008) Investigating the relationship between employability and self-efficacy: a cross-lagged analysis. Eur J Work Organ Psy 17(4):413–425
- Berntson E, Sverke M, Marklund S (2006) Predicting perceived employability: human capital or labour market opportunities? Econ Ind Democr 27(2):223–244
- Betz NE, Fitzgerald LF (1987) The career psychology of women. Academic Press
- Blokker R, Akkermans J, Tims M, Jansen P, Khapova S (2019) Building a sustainable start: the role of career competencies, career success, and career shocks in young professionals' employability. J Vocat Behav 112:172–184
- Blustein DL, Duffy R, Ferreira JA, Cohen-Scali V, Cinamon RG, Allan BA (2020) Unemployment in the time of COVID-19: a research agenda. J Vocat Behav 119:103436
- 32. Bozionelos N (2004) Mentoring provided: relation to mentor's career success, personality, and mentoring received. J Vocat Behav 64(1):24–46
- Breaugh JA (1999) Further investigation of the work autonomy scales: two studies. J Bus Psychol 13(3):357–373
- Brenninkmeijer V, Hekkert-Koning M (2015) To craft or not to craft. Career Dev Int 20(2):147–162. https://doi.org/10.1108/ CDI-12-2014-0162
- Bridgstock R (2009) The graduate attributes we've overlooked: enhancing graduate employability through career management skills. High Educ Res Dev 28(1):31–44
- Briscoe JP, Hall DT (2006) The interplay of boundaryless and protean careers: combinations and implications. J Vocat Behav 69(1):4–18
- Brown P, Hesketh A, Wiliams S (2003) Employability in a knowledgedriven economy. J Educ Work 16(2):107–126
- Buss DM (1987) Selection, evocation, and manipulation. J Pers Soc Psychol 53(6):1214
- Cai W, Lysova EI, Khapova SN, Bossink BA (2018) Servant leadership and innovative work behavior in Chinese high-tech firms: a moderated mediation model of meaningful work and job autonomy. Front Psychol. https://doi.org/10.3389/fpsyg.2018.01767
- 40. Castillo JJ (2009) Convenience sampling. Retrieved on October, 2, 2013
- Cenciotti R, Alessandri G, Borgogni L (2017) Psychological capital and career success over time: the mediating role of job crafting". J Leadership Organ Stud 24(3):372–384. https://doi.org/10.1177/1548051816 680558
- 42. Chesley N (2014) Information and communication technology use, work intensification and employee strain and distress. Work Employ Soc 28(4):589–610
- Chiaburu DS, Baker VL, Pitariu AH (2006) Beyond being proactive: what (else) matters for career self-management behaviors? Career Dev Int 11(7):619–632. https://doi.org/10.1108/13620430610713481

- Clarke M, Patrickson M (2008) The new covenant of employability. Empl Relat 30(2):121–141. https://doi.org/10.1108/01425450810843320
- Clausen T, Pedersen LRM, Andersen MF, Theorell T, Madsen IE (2022) Job autonomy and psychological well-being: a linear or a non-linear association? Eur J Work Organ Psy 31(3):395–405
- Colakoglu SN (2011) The impact of career boundarylessness on subjective career success: the role of career competencies, career autonomy, and career insecurity. J Vocat Behav 79(1):47–59
- 47. Crant JM (2000) Proactive behavior in organizations. J Manag 26(3):435–462
- 48. Das SP, Mishra PS (2014) Antecedents and consequences of employee engagement: a critical analysis of literature review. Int J Human Resour Manage 3(2):73–86
- De Cuyper N, De Jong J, De Witte H, Isaksson K, Rigotti T, Schalk R (2008) Literature review of theory and research on the psychological impact of temporary employment: Towards a conceptual model. Int J Manag Rev 10(1):25–51
- De Cuyper N, De Witte H (2011) The management paradox: self-rated employability and organizational commitment and performance. Pers Rev 40(2):152–172. https://doi.org/10.1108/00483481111106057
- De Cuyper N, Mäkikangas A, Kinnunen U, Mauno S, Witte HD (2012) Cross-lagged associations between perceived external employability, job insecurity, and exhaustion: testing gain and loss spirals according to the conservation of resources theory. J Organ Behav 33(6):770–788
- De Cuyper N, Sora B, De Witte H, Caballer A, Peiró JM (2009) Organizations' use of temporary employment and a climate of job insecurity among Belgian and Spanish permanent workers. Econ Ind Democr 30(4):564–591
- De Gieter S, Hofmans J, Bakker AB (2018) Need satisfaction at work, job strain, and performance: a diary study. J Occup Health Psychol 23(3):361–372. https://doi.org/10.1037/ocp0000098
- De Vos A, Akkermans J, Van Der Heijden B (2019a) From occupational choice to career crafting. The Routledge Companion to Career Studies, pp 128–142
- De Vos A, Akkermans J, Van Der Heijden B (2019) From occupational choice to career crafting. Routledge, The Routledge Companion to Career Studies, pp 128–142
- De Vos A, Cambré B (2017) Career management in high-performing organizations: A set-theoretic approach. Hum Resour Manage 56(3):501–518
- De Vos A, De Clippeleer I, Dewilde T (2009) Proactive career behaviours and career success during the early career. J Occup Organ Psychol 82(4):761–777
- De Vos A, De Hauw S, Van der Heijden BI (2011) Competency development and career success: the mediating role of employability. J Vocat Behav 79(2):438–447
- De Vos A, Dewettinck K, Buyens D (2009) The professional career on the right track: a study on the interaction between career self-management and organizational career management in explaining employee outcomes. Eur J Work Organ Psy 18(1):55–80
- De Vos A, Forrier A, Van der Heijden B, De Cuyper N (2017) Keep the expert! Occupational expertise, perceived employability and job search. Career Dev Int 22(3):318–332. https://doi.org/10.1108/CDI-122016-0229
- De Vos A, Soens N (2008) Protean attitude and career success: The mediating role of self-management. J Vocat Behav 73(3):449–456
- De Witte H (1992) Tussen optimisten en teruggetrokkenen: een empirisch onderzoek naar het psychosociaal profiel van langdurig werkloen en deelnemers aan de Weer-Werkactie in Vlaanderen: HIVA; Leuven
- 63. Deci EL, Connell JP, Ryan RM (1989) Self-determination in a work organization. J Appl Psychol 74(4):580–590
- Demerouti E (2014) Design your own job through job crafting. European psychologist.
- Dhar RL (2016) Ethical leadership and its impact on service innovative behavior: The role of LMX and job autonomy. Tour Manage 57:139–148
- Dierdorff EC, Jensen JM (2018) Crafting in context: Exploring when job crafting is dysfunctional for performance effectiveness. J Appl Psychol 103(5):463–477. https://doi.org/10.1037/apl0000295
- 67. Dik BJ, Duffy RD (2009) Calling and vocation at work: Definitions and prospects for research and practice. Couns Psychol 37(3):424–450

- Doherty J (2010) Teaching styles in physical education and Mosston's spectrum. Kahperd J 48(1):4–6
- Dubbelt L, Demerouti E, Rispens S (2019) The value of job crafting for work engagement, task performance, and career satisfaction: longitudinal and quasi-experimental evidence. Eur J Work Organ Psy 28(3):300–314
- Eby LT, Butts M, Lockwood A (2003) Predictors of success in the era of the boundaryless career. J Organ Behav 24(6):689–708
- Egbuta OU, Akinlabi B (2019) Influence of organizational support practices on employees' career development in the nigerian national petroleum corporation. doi: https://doi.org/10.7176/EJBM/11-18-04
- 72. Faul F, Erdfelder E, Buchner A, Lang AG (2009) Statistical power analyses using G* Power 31: tests for correlation and regression analyses. Behav Res Methods 41(4):1149–1160
- Fernandes AAR, Taba IM (2018) Welding technology as the moderation variable in the relationships between government policy and quality of human resources and workforce competitiveness. J Sci Technol Policy Manage 10(1):58–72. https://doi.org/10.1108/JSTPM-05-2017-0019
- Fornell C, Larcker DF (1981) Structural equation models with unobservable variables and measurement error: Algebra and statistics: Sage Publications, Sage CA, Los Angeles, CA
- Forrier A, Sels L (2003) The concept employability: a complex mosaic. Int J Human Resour Dev Manage 3(2):102–124
- 76. Forrier A, Verbruggen M, De Cuyper N (2015) Integrating different notions of employability in a dynamic chain: the relationship between job transitions, movement capital and perceived employability. J Vocat Behav 89:56–64
- 77. Frese M (1989) Theoretical models of control and health. Job Control Worker Health 107:108
- 78. Fryer D, Payne R (1984) Proactive behaviour in unemployment: findings and implications. Leis Stud 3(3):273–295
- Fugate M, Kinicki AJ, Ashforth BE (2004) Employability: a psycho-social construct, its dimensions, and applications. J Vocat Behav 65(1):14–38
- Gadi PD, Silas G, Bagobiri E (2022) Intention to quit of proactive health workers: the intervening role of employee engagement and the moderated mediating effect of job autonomy. Int J Bus Manage Econ 3(1):1–23
- 81. Gaskin J, Lim J (2016) Master validity tool. *AMOS Plugin In: Gaskination's* StatWiki.
- 82. Gattiker UE, Larwood L (1986) Subjective career success: a study of managers and support personnel. J Bus Psychol 1(2):78–94
- 83. Goulet LR, Singh P (2002) Career commitment: a reexamination and an extension. J Vocat Behav 61(1):73–91
- Gowan MA (2014) Moving from job loss to career management: the past, present, and future of involuntary job loss research. Hum Resour Manag Rev 24(3):258–270
- Grant AM, Ashford SJ (2008) The dynamics of proactivity at work. Res Organ Behav 28:3–34
- Grant AM, Fried Y, Juillerat T (2011) Work matters: Job design in classic and contemporary perspectives 1:417–453. https://doi.org/10.1037/ 12169-013
- 87. Grant AM, Parker SK (2009) 7 redesigning work design theories: the rise of relational and proactive perspectives. Acad Manag Ann 3(1):317–375
- 88. Greenhaus JH, Callanan GA (2006) Encyclopedia of career development. Sage Publications
- 89. Greenhaus JH, Parasuraman S, Wormley WM (1990) Effects of race on organizational experiences, job performance evaluations, and career outcomes. Acad Manag J 33(1):64–86
- 90. Griffeth RW, Hom PW, Gaertner S (2000) A meta-analysis of antecedents and correlates of employee turnover: update, moderator tests, and research implications for the next millennium. J Manag 26(3):463–488
- 91. Gruman JA, Saks AM (2011) Performance management and employee engagement. Hum Resour Manag Rev 21(2):123–136
- 92. Guan Y, Arthur MB, Khapova SN, Hall RJ, Lord RG (2019) Career boundarylessness and career success: a review, integration and guide to future research. J Vocat Behav 110:390–402
- Guest DE, Isaksson K, De Witte H (2010) Employment contracts, psychological contracts, and employee well-being: an international study. Oxford University Press
- 94. Guilbert L, Carrein C, Guénolé N, Monfray L, Rossier J, Priolo D (2018) Relationship between perceived organizational support, proactive

- personality, and perceived employability in workers over 50. J Employ Couns 55(2):58–71
- 95. Hackman JR, Oldham GR (1976) Motivation through the design of work: test of a theory. Organ Behav Hum Perform 16(2):250–279
- 96. Hair JF, Black WC, Babin BJ, Anderson RE, Tatham R (2014) Multivariate data analysis, new, international edn. Pearson Education, Harlow
- Hair JF, Hult GTM, Ringle CM, Sarstedt M, Thiele KO (2017) Mirror, mirror on the wall: a comparative evaluation of composite-based structural equation modeling methods. J Acad Mark Sci 45(5):616–632
- 98. Hall DT (2002) Careers in and out of organizations. Sage
- Hall DT, Heras ML (2010) Reintegrating job design and career theory: Creating not just good jobs but" smart" jobs. J Organ Behav 31(2/3):448–462
- Harju LK, Hakanen JJ, Schaufeli WB (2016) Can job crafting reduce job boredom and increase work engagement? A three-year cross-lagged panel study. J Vocat Behav 95:11–20
- 101. Harvey L (2001) Defining and measuring employability. Qual High Educ 7(2):97–109
- Hirschi A, Nagy N, Baumeler F, Johnston CS, Spurk D (2018) Assessing key predictors of career success: Development and validation of the career resources questionnaire. J Career Assess 26(2):338–358
- Hu L, Bentler PM (1999) Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives. Struct Equ Modeling 6(1):1–55
- Iqbal Q (2016) Job-crafting and organizational commitment: personjob fit as moderator in banking sector of Pakistan. Int J Manage Account Fcon 3(12):837–851
- International Workplace Group (2019) "The iwg global workspace survey", http://assets.regus.com/pdfs/iwg-workplace-survey/iwg-workplace-survey-2019.pdf/. Accessed 8 Jan 2024
- Kaye B, Jordan-Evans S (2000) Retention: tag, you're it! Training and development-Alexandria-American society for training and development, 54(4): 29–39.
- 107. Khan MM, Khan E, Imran SA (2018) Using job crafting to improve the well-being and faculty performance: the case of higher education institutions of Pakistan. Global Manage J Acad Corporate Stud 8(1):65–77
- Khapova SN, Arthur MB (2011) Interdisciplinary approaches to contemporary career studies. Human Relations 64(1):3–17
- 109. King Z (2004) Career self-management: Its nature, causes and consequences. J Vocat Behav 65(1):112–133
- Kirch W (2008) Pearson's correlation coefficient. Encyclopedia of Public Health, pp 1090–1091
- Kooij DT, Tims M, Akkermans J (2017) The influence of future time perspective on work engagement and job performance: the role of job crafting. Eur J Work Organ Psy 26(1):4–15
- Kooij DT, Tims M, Kanfer R (2015) Successful aging at work: the role of job crafting Aging Workers and the Employee-Employer Relationship, pp 145–161. Springer
- Kossek EE, Roberts K, Fisher S, Demarr B (1998) Career self-management: A quasi-experimental assessment of the effects of a training intervention. Pers Psychol 51(4):935–960
- 114. Kuijpers M, Scheerens J (2006) Career competencies for the modern career. J Career Dev 32(4):303–319
- Kundi YM, Hollet-Haudebert S, Peterson J (2022) Career adaptability, job crafting and subjective career success: the moderating roles of lone wolf personality and positive perfectionism. Pers Rev 51(3):945–965
- Kuvaas B (2008) An exploration of how the employee—organization relationship affects the linkage between perception of developmental human resource practices and employee outcomes. J Manage Stud 45(1):1–25
- Lam LW (2012) Impact of competitiveness on salespeople's commitment and performance. J Bus Res 65(9):1328–1334
- Laurence GA, Fried Y, Yan W, Li J (2020) Enjoyment of work and driven to work as motivations of job crafting: evidence from Japan and China. Jpn Psychol Res 62(1):1–13
- Li J, Han X, Qi J, He X (2021) Managing one's career: the joint effects of job autonomy, supervisor support, and calling. J Career Dev 48(6):973–986
- 120. Li CS, Goering DD, Montanye MR, Su R (2021) Understanding the career and job outcomes of contemporary career attitudes within the context

- of career environments: an integrative meta-analysis. J Organ Behav 42(2):1–24. https://doi.org/10.1002/job.2510
- 121. Lo Presti A, Van der Heijden B, Briscoe JP, De Rosa A (2023) "Crafting your own success": a time-lagged study on the mediating role of job crafting dimensions in the relationship between protean career and career success. Career Dev Int 28(2):180–195
- Lysova El, Jansen PG, Khapova SN, Plomp J, Tims M (2018) Examining calling as a double-edged sword for employability. J Vocat Behav 104:261–272
- 123. Marais HC, Pienaar-Marais M (2016) Analysis of research methodology in business and management studies as reflected in the ECRM 2015 proceedings. Paper presented at the European Conference on Research Methodology for Business and Management Studies
- 124. Mark S, Philip L, Adrian T (2009) Research methods for business students. Prentice Hall
- Maslach C, Schaufeli WB, Leiter MP (2001) Job burnout. Annu Rev Psychol 52(1):397–422
- 126. Mayrhofer W, Briscoe JP, Hall DTT, Dickmann M, Dries N, Dysvik A, et al (2016) Career success across the globe: insights from the 5C project
- 127. McDonald KS, Hite LM (2008) The next generation of career success: Implications for HRD. Adv Dev Hum Resour 10(1):86–103
- Memon M, Ting H, Cheah J, Ramayah T, Chuah F, Cham T (2020) Sample size for survey research: review and recommendations. J Appl Struct Equ Model 4(2):1–20
- Nelissen J, Forrier A, Verbruggen M (2017) Employee development and voluntary turnover: Testing the employability paradox. Hum Resour Manag J 27(1):152–168
- Ng TW, Eby LT, Sorensen KL, Feldman DC (2005) Predictors of objective and subjective career success: a meta-analysis. Pers Psychol 58(2):367–408
- 131. Ng TW, Feldman DC (2014) Subjective career success: a meta-analytic review. J Vocat Behav 85(2):169–179
- 132. Nunnally JC (1994) Psychometric theory 3E: Tata McGraw-hill education
- 133. Parasuraman S, Greenhaus JH, Linnehan F (2000) Time, person-career fit, and the boundaryless career. Trends Org Behav 7:63–78
- Plomp J, Tims M, Akkermans J, Khapova SN, Jansen PG, Bakker AB (2016)
 Career competencies and job crafting. Career Dev Int 21(6):587–602
- Plomp J, Tims M, Khapova S, Jansen P, Bakker A (2018) The role of job crafting and contract type in the relationship between psychological safety and employability: Working paper
- Plomp J, Tims M, Khapova SN, Jansen PG, Bakker AB (2019) Psychological safety, job crafting, and employability: a comparison between permanent and temporary workers. Front Psychol 10:974. https://doi.org/10.3389/fpsyg.2019.00974
- Posig M, Kickul J (2003) Extending our understanding of burnout: test of an integrated model in nonservice occupations. J Occup Health Psychol 8(1):3–19. https://doi.org/10.1037/1076-8998.8.1.3
- Rahman H, Rahman W, Khan MA, Anwar KJ (2017) The mediating role of career development in its antecedents and outcomes: empirical evidence from Pakistan. Sarhad J Manage Sci 2(02):164–175
- 139. Raybould J, Sheedy V (2005) Are graduates equipped with the right skills in the employability stakes? Ind Commer Train
- Rehman U, Shahnawaz M G (2021) Machiavellianism and task-orientated leadership: moderating effect of job autonomy. Leadersh Educ Person Interdiscip J, pp 1–7
- Riaz CH (2021) Impact of workplace telepressure on work-family conflict: mediating role of psychological detachment and moderating role of job autonomy. Capital University
- Robson SM, Hansson RO, Abalos A, Booth M (2006) Successful aging: criteria for aging well in the workplace. J Career Dev 33(2):156–177
- Rosin HM (1990) The effects of dual career participation on men: some determinants of variation in career and personal satisfaction. Human Relations 43(2):169–182
- Rothwell AT (2015) Employability. APA handbook of career intervention, vol 2 applications, pp 337–350. American Psychological Association. Doi:https://doi.org/10.1037/14439-025
- Rudolph CW, Katz IM, Lavigne KN, Zacher H (2017) Job crafting: a metaanalysis of relationships with individual differences, job characteristics, and work outcomes. J Vocat Behav 102:112–138

- Salanova M, Llorens S, Cifre E (2013) The dark side of technologies: Technostress among users of information and communication technologies. Int J Psychol 48(3):422–436
- 147. Sarason SB (1977) Work, aging, and social change: professionals and the one life-one career imperative. Free Press
- Schaufeli WB, Bakker AB, Salanova M (2006) The measurement of work engagement with a short questionnaire: a cross-national study. Educ Psychol Measur 66(4):701–716
- Segers J, Inceoglu I (2012) Exploring supportive and developmental career management through business strategies and coaching. Hum Resour Manage 51(1):99–120
- Seibert SE, Crant JM, Kraimer ML (1999) Proactive personality and career success. J Appl Psychol 84(3):416
- Seibert SE, Kraimer ML, Holtom BC, Pierotti AJ (2013) Even the best laid plans sometimes go askew: career self-management processes, career shocks, and the decision to pursue graduate education. J Appl Psychol 98(1):169
- 152. Shiffler RE (1988) Maximum Z scores and outliers. Am Stat 42(1):79–80
- Shockley KM, Ureksoy H, Rodopman OB, Poteat LF, Dullaghan TR (2016) Development of a new scale to measure subjective career success: a mixed-methods study. J Organ Behav 37(1):128–153
- Shuck B (2011) Four emerging perspectives of employee engagement: an integrative literature review. Human Resouce Dev Rev. https://doi. org/10.1177/1534484311410840
- Smale A, Bagdadli S, Cotton R, Dello Russo S, Dickmann M, Dysvik A, Reichel A (2019) Proactive career behaviors and subjective career success: the moderating role of national culture. J Organ Behav 40(1):105–122
- Spector PE (1986) Perceived control by employees: a meta-analysis of studies concerning autonomy and participation at work. Human Relations 39(11):1005–1016
- Spreitzer GM (1995) Psychological empowerment in the workplace: dimensions, measurement, and validation. Acad Manag J 38(5):1442–1465
- 158. Sturges J, Guest D, Conway N, Davey KM (2002) A longitudinal study of the relationship between career management and organizational commitment among graduates in the first ten years at work. J Organ Behavior 23(6):731–748
- Super DE, Jordaan JP (1973) Career development theory. Br J Guid Couns 1(1):3–16
- Tabachnick BG, Fidell LS, Ullman JB (2007) Using multivariate statistics (vol 5): Pearson Boston, MA
- Tierney P, Farmer SM (2002) Creative self-efficacy: Its potential antecedents and relationship to creative performance. Acad Manag J 45(6):1137–1148
- Tims M, Akkermans J (2020) Job and career crafting to fulfill individual career pathways. Career Pathways–School to Retirement and Beyond, pp 165–190
- Tims M, Bakker AB, Derks D (2012) Development and validation of the job crafting scale. J Vocat Behav 80(1):173–186
- Tims M, Bakker AB, Derks D (2013) The impact of job crafting on job demands, job resources, and well-being. J Occup Health Psychol 18(2):230–240
- 165. Tims M, Derks D, Bakker AB (2016) Job crafting and its relationships with person–job fit and meaningfulness: a three-wave study. J Vocat Behav 92:44–53
- 166. Tremblay M, Roger A (2004) Career plateauing reactions: the moderating role of job scope, role ambiguity and participation among Canadian managers. Int J Human Resour Manage 15(6):996–1017
- Tummers L, Kruyen PM, Vijverberg DM, Voesenek TJ (2015) Connecting HRM and change management: The importance of proactivity and vitality. J Organ Chang Manag 28(4):627–640
- Tymon A (2013) The student perspective on employability. Stud High Educ 38(6):841–856
- Ullman JB, Bentler PM (2012) Structural equation modeling. Handbook of Psychology, 2nd edn
- Van der Heijden BI, De Vos A (2015) Sustainable careers: introductory chapter Handbook of research on sustainable careers: Edward Elgar Publishing.
- 171. van Emmerik IH, Schreurs B, De Cuyper N, Jawahar I, Peeters MC (2012a)
 The route to employability. Career Development International

Diaa et al. Future Business Journal (2024) 10:16 Page 20 of 20

- 172. van Emmerik IH, Schreurs B, De Cuyper N, Jawahar I, Peeters MC (2012b)
 The route to employability: Examining resources and the mediating role of motivation. Career Dev Int
- 173. Van Hootegem A, De Witte H, De Cuyper N, Elst TV (2019) Job insecurity and the willingness to undertake training: the moderating role of perceived employability. J Career Dev 46(4):395–409
- 174. van Leeuwen EH, Kuyvenhoven JP, Taris TW, Verhagen MA (2022) Burnout and employability rates are impacted by the level of job autonomy and workload among Dutch gastroenterologists. United Eur Gastroenterol J 10(3):296–307
- 175. Van Maanen JE, Schein EH (1977) Toward a theory of organizational socialization
- 176. Vanhercke D, De Cuyper N, Peeters E, De Witte H (2014) Defining perceived employability: a psychological approach. Personnel Rev
- 177. Wang AC, Cheng BS (2010) When does benevolent leadership lead to creativity? The moderating role of creative role identity and job autonomy. J Organ Behav 31(1):106–121
- Wang H-j, Chen X, Lu C-q (2020) When career dissatisfaction leads to employee job crafting. Career Dev Int 25(4):337–354
- Wang M-T (2012) Educational and career interests in math: a longitudinal examination of the links between classroom environment, motivational beliefs, and interests. Dev Psychol 48(6):1643–1657
- Wrzesniewski A, Dutton JE (2001) Crafting a job: revisioning employees as active crafters of their work. Acad Manag Rev 26(2):179–201
- Yagil D, Oren R (2021) Servant leadership, engagement, and employee outcomes: the moderating roles of proactivity and job autonomy. J Work Organ Psychol 37(1):58–67
- 182. Zhou W, Xie B, Xin X, Bai G, Miao R (2015) A meta-analysis on effects of human, social, and psychological capital on career success in Chinese business organizations. Acta Psychol Sin 47(2):251–263
- 183. Zikmund WG, Babin B, Carr J, Griffin M (2003) Business research methods, 7th edn. Thompson Learning, CA

Publisher's Note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.