



# The contribution of LinkedIn use to career outcome expectations

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## 1. Introduction

Social media has transformed organizations and employees' lives (Ngai, Tao & Moon, 2015; Tajvidi & Karami, 2017), millions of users have incorporated it into their daily routines (Boyd & Ellison, 2007), and it has improved the performance of organizations (Tajvidi & Karami, 2017). Social media, such as LinkedIn, Twitter, and Facebook, is becoming important for career-related subjects such as job searches, selection and recruitment practices, and career decisions (Levine & Aley, 2020). It is a useful tool for career progression and job searching (McCabe, 2017) and a source of information to set up careers for success (Levine & Aley, 2020). However, the research related to social media has been published mainly in journals on technology in general and in specific information and communications technology (Akkermans & Kubasch, 2017).

LinkedIn was created in 2002 (LinkedIn, 2020) to be used for job placement and long-term career development. It creates opportunities for any individual with short- and long-term career goals (Schneiderman, 2016; Zia & Malik, 2019). Increasingly, employees expect to have careers related to the adoption of technologies (Compeau, Higgins & Huff, 1999; Schneiderman, 2016; Fetherston, Cherney, & Bunton, 2018; Ma & Leung, 2019; Yan et al., 2019). There is little research on the contribution of social media to employees' careers except for Benson, Morgan, and Filippaios (2014), and Ellison, Vitak, Gray, and Lampe (2014) on its influence and Chan et al. (2018) and Chugh, Grose, and Macht (2021) on its influence on academics' careers. Yet as the role of social media is likely to increase in the years to come, the research on this topic should develop (Akkermans & Kubasch, 2017).

There is a growing interest in exploring the factors that determine the extent to which the adoption of technologies is related to career outcome expectations. However, most studies neglect the role of LinkedIn, and little is known about how the use of LinkedIn and the personal characteristics of employees contribute to those expectations. Following the Social Cognitive Theory (SCT) (Bandura, 1986) and the Social Cognitive

Career Theory (SCCT) (Lent & Brown, 2006; Olson, 2014), we explore the social network and demographic conditions of such expectations.

The use of social networking sites for professional purposes has received limited attention despite the evidence on the active use of social networks to develop valuable connections during job searches and career management (Benson & Filippaios, 2019). To fill this gap, we investigate the role of LinkedIn use in career outcome expectations. The research shows LinkedIn's effect on promoting employability (Badoer, Hollings, & Chester, 2021) and on connecting individuals to potential employers (McCool, 2019); however, no study exists on the role of LinkedIn in career outcome expectations. This work aims to address this contribution by LinkedIn and thus to expand on the literature that has focused on the influence of social media in career development (Avci, 2020), and LinkedIn in particular (Ma & Leung, 2019). Furthermore, the use of SCT allows us to explore the phenomenon at an early stage, and address the influence of LinkedIn use on career outcome expectations prior to future stages of career development.

Moreover, we address the contributions of employees' personal characteristics (age and gender) and the industry in which they work. This study adds to the current knowledge on the SCT contribution to generating career outcome expectations in the digital environment. Since social phenomena are complex, we propose two research questions. First, we question whether there are alternative configurations of conditions to generate those expectations. Second, we question if there are alternative configurations of conditions that lead to the absence of career outcome expectations.

In this study, we use a fuzzy set qualitative comparative analysis (fsQCA) to discover the alternative configurations of the conditions that lead to career outcome expectations and their absence. Based on our findings we conclude that using LinkedIn for professional purposes is a necessary but not sufficient condition to alone create career outcome expectations. The results show there are three alternative configurations that produce such expectations. On the other hand, there are no configurations that lead to their absence.

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This study is structured as follows: We address Bandura's Social Cognitive Theory in Section 2. Section 3 presents the literature on career outcome expectations, and Section 4 presents social networks and professional development. In Section 5, we elaborate on LinkedIn use as a social network. Section 6 presents on the chosen method as well as data collection, calibration, and analysis. Section 7 shows the main results of the investigation and the configurations for high career outcome expectations that is followed by Section 8 that has a discussion on the findings. Section 9 offers the conclusions and limitations of the study while inviting future work.

## 2. Bandura's Social Cognitive Theory

Social Cognitive Theory (SCT) emphasizes the concept of self-efficacy (beliefs about the ability to perform a behavior). This theory recognizes that positive career outcome expectations about an action will not exist if we have doubts about our ability to be successful (Compeau, Higgins & Huff, 1999). The expectations are related to the beliefs about the consequences of a behavior, and self-efficacy is related to the ability to behave successfully (Sheu, Lent, Brown, Miller, Hennesy & Duffy, 2010). Overall, self-efficacy is highly related to an individual's ability to assess, organize, and carry out actions to achieve goals (Luc, 2020). Therefore, self-efficacy is relevant for investigations into careers to analyze the antecedents of self-efficacy and the expectations for outcomes (Lent & Brown, 2019). Actions that have positive outcomes are usually adopted and used to bring feelings of hope. On the contrary, those that have negative results bring feelings of fear and usually are interrupted (Bandura, 1999; Lehne & Koelsch, 2015). Still, people can have both expectations at the same time (Tsai & Compeau, 2017) that indicates the phenomenon is complex.

The social cognitive perspective brings different views of the context and the person. These measures of traits can be useful to explain career outcomes. The Social Cognitive Career Theory (SCCT) focuses on dynamic and specific aspects of individuals and their environments (Lent & Brown, 2006). SCCT is useful for assisting professionals during the early stages of their careers by exploring the individual's self-efficacy, expectations, and personal goals (Olson, 2014). Gaining an understanding of a career influences the self-efficacy of the decisions on it (Akhsania, Basuki, Sugiharto, & Japar, 2021). The more regular the use, the frequency, and the engagement with LinkedIn by students can help them to build self-efficacy about their future careers and job searches. After all, its perceived ease of use is a significant predictor of the self-efficacy of career preparation (Fetherston et al., 2018).

High self-efficacy is associated with several outcomes such as career preparation and planning. When the self-confidence in performing career-related tasks improves (high self-efficacy), it reinforces the motivation to explore careers and expands the depth and breadth of that exploration (Chan, 2018). Self-efficacy has positive effects on career outcome expectations (Lanero, Vázquez, & Aza, 2016). A high-quality relationship with a coworker is associated with career self-efficacy. In other words, high-quality relationships increase the belief of the professionals that they can successfully drive their careers and can influence career outcome expectations and the level at which they explore career opportunities (Ehrhardt & Sharif, 2019).

## 3. Career outcome expectations

We propose that career outcome expectations (adapted from the expectations in Compeau et al., 1999) come from the perceived likely career consequences from engaging in a behavior. Careers have become unpredictable and complex in recent decades (Akkermans & Kubasch, 2017). In this scenario, studies have defined "success" as the full use of an individual's talent to the advantage of not only the organization but also to family, community, and to themselves (Schein & Van Maanen, 2016). A promotion or an upward hierarchical movement in organizations no longer reflects a measure of success in professional life (Schein

& Van Maanen, 2016). Health, work-life balance, subjective well-being, status, earnings, promotion, reemployment success, and skill development are some of the indicators of career success (Guan, Arthur, Khapova, Hall, & Lord, 2018). Career studies are increasingly presented in international conferences, handbooks, and academic journals (Baruch, Szűcs, & Gunz, 2015). The SCT (Bandura, 1986) proposes that an individual's career development is based on expectations, self-efficacy, and personal goals. According to Bandura (2005), setting goals and expectations about outcomes motivates and guides behavior. Emotions represent the main role in individuals' beliefs and guide their behavior and decision-making (Sarabadani et al., 2020). Leadership should care about employees' emotional needs and motivation. When their needs and expectations are fulfilled, employees are likely to be more engaged in their work and have a higher level of self-efficacy that improves their career satisfaction (Ngo & Hui, 2018).

### 3.1. Individual characteristics and career outcome expectations

The expectations about potential career paths are influenced by personal learning experiences (Lent & Brown, 1996). The desire for career advancement is related to personal beliefs about a person's skills and knowledge to complete an assignment (Hartman & Barber, 2020). Expectations and self-efficacy are not influenced by temporal distance (Lee & Park, 2012). Self-motivation and action are affected by efficacy beliefs through their impact on aspirations and goals (Bandura, 2009). These goals represent people's ability to create the desired future results in which career plans, aspirations, decisions, and expressive choices are considered partial objectives (Lent, Brown, & Hackett, 1994) to build future outcomes. Individuals looking for meaningful work and a greater goal have more positive career outcome expectations than those who do not perceive their future careers in that way (Domene, 2012).

Compeau and Higgins (1995) adopt the SCT to explain the factors that influence the adoption of new technologies. They find that self-efficacy and career outcome expectations have an important impact on computer use. Career outcome expectations can be considered the likely consequences of using a technology and have two dimensions (personal and performance related) (Compeau et al., 1999). Performance expectations represent tangible and direct consequences of behavior; in contrast, personal expectations are related to values and personal images that are indirect and unclear (Kwahk, Ahn, & Ryu, 2018). Personal expectations are associated with the possibility of a change in status or image or even rewards (raises, promotions, and recognition) due to technology use. Expectations are associated with a better result at work (effectiveness and efficiency) with the use of technology (Compeau et al., 1999) and have an important influence on the use of computers (Compeau & Higgins, 1995).

### 3.2. Behavior in career outcome expectations

There is a reciprocal and continuous interaction between the individual's environment and their personal cognitive perceptions (expectations of results, behavior, and self-efficacy) (Bandura, 1999), thoughts, and behaviors (Betz & Vuyten, 1997). Career outcome expectations concern the beliefs about the consequences of performing behaviors or directions of action, and self-efficacy is the ability to successfully perform (Sheu et al., 2010). Self-efficacy is deeply related to judgments of an individual's ability (Yen, 2016); it is an individual's capacity to evaluate, organize, and to achieve actions to reach goals ("I know I can do it") (Luc, 2020). Self-efficacy may predict some behaviors and attitudes in a remote work context (Staples et al., 1999). Higher self-efficacy may influence positive expectations and interests that meanwhile facilitate the choice of goals (Lent & Brown, 1996). Self-efficacy is considered in the SCT as an antecedent to technology use; however, successful interactions with technology can also influence self-efficacy.

Expectations and self-efficacy are the main contributors to the choice of goals that develop a career (Lent & Brown, 1996). Outcome

expectations are the beliefs about the consequences of an action (Bandura, 1986; Lent & Brown, 1996; Sheu et al., 2010; Luc, 2020) and they contribute to career decisions and self-efficacy (Fouad & Guillen, 2006). Furthermore, self-efficacy has positive effects on career choice and expectations (Lanero et al., 2016). Thus, we posit that the behavioral use of LinkedIn influences career outcome expectations. Outcome expectations relate to the consequences of engaging in adaptive behaviors (Lent et al., 2017). Additionally, outcome expectations and self-efficacy affect the development of interest in a career (Lee & Park, 2012). Self-efficacy beliefs and expectations contribute to intentions to engage in adaptive career behaviors (related to goals) as well as actual validation of these behaviors (associated to actions) (Roche et al., 2017). Positive expectations and self-efficacy promote goals to pursue career exploration and decision activities (Lent, Ireland, Penn, Morris & Sappington, 2017). According to Sheu and Bordon (2017), expectations about outcomes have received less empirical attention from researchers than self-efficacy studies.

### 3.3. The use of LinkedIn in career outcome expectations

LinkedIn is the best platform among professional social media ones (Brewer, 2018) because it is the most useful and effective website for employers (Kim & Malek, 2018) who are looking for individuals seeking job openings (Cerro, Rodríguez, Vidal, Escabrós, & Oberst, 2017). Further, LinkedIn provides job opportunities to its users (Ruparel, Dhir, Tandon, Kaur, & Islam, 2020) by offering information about job openings and what employers are searching for.

Professionals expect that the use of LinkedIn improves their outcomes because its use is professionally beneficial (Davis, Wolff, Forret, & Sullivan, 2020) with regard to networking (Baruffaldi, Di Maio, & Landoni, 2017; Castillo-de Mesa & Gómez-Jacinto, 2020; Davis et al., 2020) and career opportunities (Fetherston et al., 2018; Ma & Leung, 2019; Schneiderman, 2016; Zia & Malik, 2019). There are positive expectations about the possibility of good performance results associated with the use of technology (Compeau et al., 1999). Professionals use LinkedIn for the management and construction of professional careers (Schneiderman, 2016; Zia & Malik, 2019) and its use is positively related to reaching higher hierarchical positions (Brenner, Sezen, & Schwalbach, 2020). This literature is consistent with the arguments on the expectations of the use of technology being associated with the possibility of increased performance results (Compeau et al., 1999) that consider the relevance of the skills necessary to navigate in social networks for business use (Benson & Filippaios, 2019). Additionally, the information systems literature shows a nexus between internet behaviors and expectations from computer use (Chiu, Hsu, & Wang, 2006). Thus, we argue that LinkedIn use for professional purposes is relevant to career outcome expectations.

### 4. Social networks and professional development

The nature of work and career are changing. Social connections since the early stages of tertiary education are important to building and keeping social capital (Badoer et al., 2021). Networking might lead to a first job or professional advancement (Gerard, 2012). Furthermore, communication technologies are accessible and easy sources for reducing some of the uncertainty in career exploration (Fetherston et al., 2018). Professional social sites may help individuals to construct their networks by reducing negative emotions associated with networking that then contribute to a social compensation effect (Baumann & Utz, 2021). Social media provides individuals with information on who to search for when in need of assistance and to convey useful professional information to others as well (Davis et al., 2020). Equally important, employability gains strength with the increase in interpersonal interactions and the exchange of information provide by social networks (Mehreen, Hui, & Ali, 2019). The use of social media for professional development is related to employability. Companies should encourage

their employees to use social media for professional development, it is an approach with great potential in professional life (Habets, Van der Heijden, Ramzy, Stoffers, & Peters, 2021).

LinkedIn is an effective and efficient opportunity to build and maintain a professional network that promotes employability (Badoer et al., 2021). Young professionals are establishing personal branding in a new way, they are using multiple media and transmedia storytelling techniques to connect to other professionals and network with potential employers (McCool, 2019). No doubt, the working conditions are changing, as a result employees should successfully manage their careers by using social networking (especially relationships with their leaders) as a priority in career development (Avci, 2020). LinkedIn and other professional network platforms are essential tools that present both opportunities and challenges for university students to enhance graduate employability (Badoer et al., 2021). Students who use social media daily have greater entrepreneurial ambitions (Barrera Verdugo & Villarroel Villarroel, 2021). Career advancement is a strong motive for the repeated use of LinkedIn by students as they recognize it as a provider of employment and internship opportunities (Florenthal, 2015). The benefits earned from the use of LinkedIn should not be ignored by professionals. The gain in knowledge and information offers new choices and options for career planning and development (Cho & Lam, 2020). Moreover, LinkedIn is the preferred platform for developing professional reputations (Ryan, Cruickshank, Hall, & Lawson, 2020).

Individuals can access extensive job posts and explore career opportunities on LinkedIn. It is a new way to search for jobs and it facilitates professional advancement in careers (Cho & Lam, 2020). Professionals are increasingly dependent on social media for professional development and career advancement as the result of increased mobility. The easy access to the internet anywhere and at any time has changed the way professionals regard and interact with others for their career development and advancement (Cho & Lam, 2020). On the other hand, the absence of social media can result in the loss of potential job opportunities. Even the lack of an individual profile may give off unintended and misleading signals that professionals are not updated with technology or that they are not interested in new career opportunities. It is important to be active and to have an updated profile to increase their career opportunities and to promote a positive image (Davis et al., 2020).

### 5. LinkedIn as a social network

LinkedIn is a professional social network which allows users to promote themselves professionally and expand their social networks (Utz & Breuer, 2019; Castillo-de Mesa & Gómez-Jacinto, 2020; Davis et al., 2020). Relationship networks and personal contacts are the main mechanisms for both objectives of those professionals (Baruffaldi et al., 2017), yet LinkedIn also allows for networking with potential employers (Harrison & Budworth, 2015). Networking is an effective career self-management strategy (Volmer, Schulte, Handke, Rodenbücher, & Tröger, 2019). LinkedIn provides connections between members according to professional interests, work, and type of professional contacts (Vithayathil, Osiri, & Dadgar, 2020). LinkedIn has a network of over 706 million users from more than 200 countries. Europe has 160 million users and North America has more than 189 million users (LinkedIn, 2020).

The main purpose of LinkedIn is to be a platform for social networking and making career connections between professionals (Carmack & Heiss, 2018). LinkedIn provides a place where individuals can present themselves as job applicants and show their positive image to potential employers (Rui, 2018). It enables professionals to exchange their experience and knowledge but also allows professionals to create a relationship with other professionals. Overall, professionals can build competence, autonomy, and a network for their professional advancement (Cho & Lam, 2020). LinkedIn has changed the nature of job seeking, personnel selection, and recruitment (Cubrich et al., 2021). It



provides opportunities for students and employees to advance their career aspirations (Ruparel et al., 2020). Using LinkedIn, they can obtain professional benefits such as gain more contacts, seek new career opportunities, or obtain information related to their areas of expertise and industry (Camargo & Cappellozza, 2016). In particular, they can use LinkedIn recommendations to enhance their image, increase their contacts, and develop their relationships (Rui, 2018).

### 5.1. Gender in LinkedIn use

The distribution by gender of LinkedIn users was 57% men and 47% women in July 2020 (Statista, 2020). There are gender differences in attitudes toward computers in which men are more interested and confident in using computers than women. But both genders realize computers' benefits in daily life (Shashaani, 1993) while women are less positive towards technology usage (Cai et al., 2017; Shashaani, 1993). Gender influences individuals' pattern and frequency of social media use (Andreassen, Torsheim, & Pallesen, 2014) because each gender has a different agenda (Valencia-Ortiz, Almenara, & Ruiz, 2020) and motives when using websites (Aten, DiRenzo, & Shatnawi, 2017). When using the internet, women discuss career information and are primarily motivated by the ability to gain social information and maintain close ties. In contrast, men interact less and are primarily motivated by access to general information (Krasnova, Veltri, Eling, & Buxmann, 2017; Levine & Aley, 2020). Women have lower career ambitions than men do (Hartman & Barber, 2020), thus social networking provides an opportunity for women to develop broader business networks (Aten et al., 2017), thus, we propose:

Proposition 1 – Gender has an effect on LinkedIn use.

### 5.2. Life experience and LinkedIn use

The users' profile contains information about their work history, current employment, and educational background (Makela & Hoff, 2019). LinkedIn is used for professional purposes as employees can organize connections, manage profiles, and search for other people (Zia & Malik, 2019). LinkedIn provides a platform to network with potential employers (Harrison & Budworth, 2015) and also to develop and share career-related opportunities and information (Makela & Hoff, 2019). It is a smart source in the search for long-term career development (Schneiderman, 2016). Furthermore, when employees seek an above-average increase in salary (associated to career success), they are more likely to be part of social media networks (Brenner et al., 2020). Higher-level of managerial positions and education are positively correlated with the participation of individuals in professional social networks (Vithayathil et al., 2020). Young adults and teenagers are more prevalent on social media than older people. Individuals between 18 and 25 years old are the most common. Since the needs for self-presentation and for belongingness motivate the use of social media (Zia & Malik, 2019), these needs may justify a different use depending on the users' age. In July 2020, 63.6% of the global users of LinkedIn were between 25 and 34 years old, and 18.3% were between 18 and 24 years old (Statista, 2020). Therefore, we propose:

Proposition 2 – Age has an effect on LinkedIn use.

### 5.3. LinkedIn use for professional purposes

To create visibility on LinkedIn, users adopt different strategies such as leaving likes or comments on articles, following company information, and adding new contacts to expand their professional network (Ma & Leung, 2019). Such employees work on their image and present it in an extremely positive way as always meeting deadlines, and getting things done (Castillo-de Mesa & Gómez-Jacinto, 2020). The use of LinkedIn has a positive effect on employees with high levels of education (Vithayathil et al., 2020). There is a spontaneous bond between the professionals who use LinkedIn. They cooperate and share work

practices to their mutual benefit to increase each other's skills and create social capital (Castillo-de Mesa & Gómez-Jacinto, 2020). LinkedIn users have higher informational benefits for professional purposes than non-users (Utz & Breuer, 2016). Consequently, organizations that promote the use of social media for work-related purposes can expect an increase in productivity (Chu, 2020). The type of industry influences the use of a corporate social network. Firms use social networks in different ways, according to their purposes and characteristics. Finance companies in particular show a greater usage of LinkedIn to find jobs, people, and business opportunities (Kim, Kim, & Nam, 2014); thus, employees in such an industry may engage more in LinkedIn use. LinkedIn is the place where professionals from different industries meet to provide inputs to their profiles. An individual needs to know how to make the correct posts to have a great profile in order to become influential on industry social networks in LinkedIn (Djuric, 2019). Hence, we propose:

Proposition 3 – The industry where the individual works affects LinkedIn use.

Unlike other social media, LinkedIn users' main motivation relates to professional career development (Ma & Leung, 2019). However, it is also used for personal branding that demonstrates that certain individuals adopt this means of communication as an opportunity to build their professional image (Damnjanovic, Matovic, Kostic, & Okanovic, 2012). While LinkedIn is the most powerful tool for job seekers and recruiters (Fernandez, Stöcklin, Terrier, & Kim, 2021), not all users want to change jobs at once. Some of them might just be open to opportunities for finding a new job in the future or for expanding their professional network (Cho & Lam, 2020). Additionally, LinkedIn provides the ability to publish and to read unique content; to write and to ask for recommendations; to search for jobs, people, and companies; to learn how to structure a resume; and as a result, proper actions to network and to build a career (Gerard, 2012). Thus, the use of LinkedIn positively affects the formation of social capital (Hoda, Gupta, Ahmad, & Gupta, 2021).

Employees' attitudes are visible on social networks (Cubrich et al., 2021). LinkedIn profiles have a lot of information on the user's personality that might be relevant to hiring decisions; it goes beyond the CV. LinkedIn profiles are public; thus, recruiters can use LinkedIn to assess users' personality with accuracy (Fernandez et al., 2021) since it is easier to cheat on a resume than on a profile. Since revealing the information on a profile is voluntary and is motivated by the returns from such action, we propose that individuals engage in LinkedIn use because of the expectations from such behavior:

Proposition 4 – LinkedIn use for professional purposes affects career outcome expectations.

Proposition 5 – Frequent use of LinkedIn affects career outcome expectations.

## 6. Method

We use fsQCA to address the configurations of causal conditions and career outcome expectations. FsQCA is not new to scholars of human resource management (López-Cabarcos, Vázquez-Rodríguez, & Piñero-Chousa, 2016; Muñoz-Pascual, Galende, & Curado, 2020). Many studies have already used it to examine the success of online social networks (Mozas-Moral, Bernal-Jurado, Medina-Viruel, & Fernández-Uclés, 2016). Although professional social media combines personal and job aspects (Gerard, 2012), these studies have not yet addressed the personal characteristics of the individuals, the professional purpose for and the frequency of using LinkedIn, along with the industry in which the individuals work in order to identify the alternative configurations that generate their career outcome expectations.

A qualitative comparative analysis can be used to analyze individual-level data in studies with medium-size samples and datasets composed of responses to closed-ended survey questions (Cragun, Pal, Vadaparampil, Baldwin, Hampel, & DeBate, 2016; Ragin, 2000). FsQCA is best suited to obtain a deeper understanding of the complex and nonlinear

arrangements of circumstances that result in an outcome of interest (Rihoux & Ragin, 2009), such as the individuals' expectations (Pappas, Kourouthanassis, Giannakos, & Chrissikopoulos, 2016). Demographic conditions addressed in this study are gender and age as well as the different industries in which individuals work (e.g., Curado, Henriques, Oliveira, & Matos, 2016). The conditions related to LinkedIn use characterize the behavior of individuals. Additionally, the use of a small number of causal conditions is possible with fsQCA because it has no omitted variable bias like regression analyses as it draws on Boolean algebra rather than on correlations. Therefore, there is no need for control variables (Fainshmidt, Witt, Aguilera, & Verbeke 2020).

6.1. Data collection and calibration

The data collection used a survey on the Qualtrics platform. The link to the questionnaire was distributed by email to 1,200 professionals using a snowball approach. The targeted professionals were individuals in management careers. First, we contacted our professional and personal email contacts and second asked them to share the link with their contacts. This procedure generated 253 responses, 12 of which were excluded because they were incomplete. Thus, the final sample totaled 241 complete responses. The questionnaire consisted of an initial set of three questions related to the demographic characteristics of the sample (employees' gender and age, and the industry of the company they worked for). The following questions were related to the purpose and level of use of LinkedIn and the existence of career outcome expectations.

The calibration of the data classifies conditions from “fully in” (1) to “fully out” (0). This process demands the attribution of fuzzy scores to address the varying degrees of membership. The calibration uses theoretical and empirical knowledge. In the present study, the data were calibrated in several categories to reflect different qualitative sets: from full non-membership to full membership (Ragin, 2005; 2008). The categorical conditions used in this study were the age and frequency of using LinkedIn. The data also included binary conditions, coded as 1 for “present” and 0 for “absent” (Rihoux & Ragin, 2009). Since they are acceptable for fsQCA use (Ragin, 2006), we used gender (we asked for a self-identification of either male or female), industry (the individuals needed to identify the industry they worked in at the moment that ranged from manufacturing to services), and LinkedIn use for professional purposes (the options allowed participants to state if they use LinkedIn for professional purposes or not) as those conditions. The outcome in this study—career outcome expectations—is also a binary condition (we asked participants if they had expectations that using LinkedIn would affect their careers) (Table 1). The absence of a condition or outcome is expressed by using ~ before either.

7. Results of the necessity and sufficiency analysis

The condition's degree of necessity indicates the extent to which it is required to achieve the outcome. There is a single necessary condition that generates career outcome expectations: the use of LinkedIn for professional purposes. This condition presents a consistency level above 0.90 (Schneider, Schulze-Bentrop, & Paunescu, 2010)—0.951351—and thus it respects the threshold in the literature.

Regarding the sufficiency analysis, fsQCA provides three solutions to configurational modeling: complex, intermediate, and parsimonious (Ragin, 2008; Fiss, 2011). Following the literature, we report the intermediate solution because it is more conservative and assumes the most plausible simplifying assumptions (Ragin, 2008). The configurations as well as the overall solution's consistency levels respect the threshold of 0.80 (Ragin, 2008; Fiss 2011), and coverage levels are within the suggested range of 0.25 to 0.90 (Ragin, 2008; Woodside & Zhang, 2013). Consistency reflects the extent to which sharing a configuration of conditions leads to the outcome in question (Ragin, 2008). Coverage reflects how much of the variation in the outcome is

Table 1 Demographics and calibration cutoffs.

Conditions and outcome	Demographics (n = 241)	Calibration cutoffs
Gender (Gen)	Male – 51.87% Female – 48.13%	Male – 0 Female – 1
Age (years) (Age)	≤25–10.37% >25 and <45–62.66% ≥45–26.97%	≤25–0 >25 and <45–0.5 ≥45–1
Industry (Ind)	Manufacture – 11.20% Services – 88.80%	Manufacture – 0 Services – 1
LinkedIn use for professional purposes (Prof)	No – 12.45% Yes – 87.55%	No – 0 Yes – 1
LinkedIn use frequency (Freq)	No use – 3.73% Less than once a week – 15.77% Once a week on average – 19.92% 2 or 3 times a week – 19.50% 4 to 6 times a week – 7.05% Once a day on average – 13.69% More than once a day – 20.33%	No use – 0 Less than once a week – 0.17 Once a week on average – 0.33 2 or 3 times a week – 0.5 4 to 6 times a week – 0.67 Once a day on average – 0.83 More than once a day – 1
Career outcome expectations (COE)	No – 23.24% Yes – 76.76%	No – 0 Yes – 1

accounted for by a condition or a configuration of them (Ragin, 2006), which is similar to the R<sup>2</sup> in linear regressions (Fiss, Sharapov, & Conqvist, 2013). Specifically, unique coverage shows the relative importance of each configuration (Fiss, 2011).

The results from the configurational modeling in Table 2 provide the three alternative configurations of employees' conditions that have career outcome expectations. The use of LinkedIn for professional purposes is the unique condition that is part of all configurations. Following best practices (Fiss, 2011; Fiss et al., 2013; Ragin, 2008), we wanted to report the configurations that lead to career outcome expectations and their absence. However, there is no solution that leads to the absence of career outcome expectations that respects the cutoffs in the literature. Thus, there are no configurations of causal conditions that lead to the absence of career outcome expectations when considering the conditions in this study.

8. Discussion

In this study, we use a fuzzy set qualitative comparative analysis (fsQCA) (Rihoux & Ragin 2009; Fiss 2011) to answer our research questions. We introduce career outcome expectations (adapted from those in Compeau et al., 1999) to capture the perceived likely career consequences from engaging in a behavior. Our findings show that using LinkedIn for professional purposes is a necessary but not sufficient condition to alone create career outcome expectations (Table 2). There are more sufficient conditions that can be necessary but not necessarily sufficient to generate the outcome (Woodside, 2016). There are three alternative configurations that produce career outcome expectations, all of which involve using LinkedIn for professional purposes plus two other conditions. Furthermore, two out of the three alternative configurations regard young employees who are either women or working in the services industries. The third configuration regards older employees that use LinkedIn frequently for professional purposes. Thus, we can answer our first research question by saying that there are three alternative configurations of conditions that lead to career outcome expectations, according to Table 2:

Configuration 1 describes a profile of young employees from the services industry who use LinkedIn for professional purposes and have career outcome expectations.

Configuration 2 describes a profile of young female employees who use LinkedIn for professional purposes and have career outcome

**Table 2**  
Results from configurational modeling.

COE = f (Gen, Age, Ind, Prof, Freq)				
Configurations	Raw coverage	Unique coverage	Consistency	Interpretation of fsQCA results
Configuration 1: ~Age*Ind*Prof	0.364865	0.046054	0.865385	Young employees from the services industry and <u>using LinkedIn for professional purposes</u> have high levels of career outcome expectations
Configuration 2: Gen*~Age*Prof	0.227027	0.022541	0.865979	Young female employees <u>using LinkedIn for professional purposes</u> have high levels of career outcome expectations
Configuration 3: Age*Prof*Freq	0.415730	0.171784	0.866591	Older employees <u>using LinkedIn</u> frequently and <u>for professional purposes</u> have high levels of career outcome expectations
Solution coverage: 0.569081				
Solution consistency: 0.859709				

expectations.

Configuration 3 describes a profile of older employees who use LinkedIn frequently for professional purposes and have career outcome expectations.

Our results are important as they relate directly to the aim of this study and support our propositions:

Results from configuration 1 support propositions 2, 3, and 4. Young individuals from a specific industry use the industry social networks in LinkedIn (Djuric, 2019) to build social capital (Hoda et al., 2021) and to increase reputation and professional returns (Henriques, Curado, Oliveira, & Maçada, 2019) that lead to high career outcome expectations.

Results from configuration 2 support propositions 1, 2, and 4. Young female individuals use LinkedIn to gain social information, to maintain close ties (Krasnova, et al., 2017; Levine & Aley, 2020), and to develop broader business networks (Aten et al., 2017). By building social capital (Hoda et al., 2021) and increasing reputation and professional returns (Henriques et al., 2019), they gain high career outcome expectations.

Results from configuration 3 support propositions 2, 4, and 5. Older individuals who use LinkedIn frequently—probably due to perceived ease of use (Fetherston et al., 2018) and motivated by career advancement (Florenthal, 2015)—do so to build social capital (Hoda et al., 2021) and to increase reputational and professional returns (Henriques et al., 2019) that lead to high career outcome expectations.

Configuration 1 regards employees from the services industry that indicate the employees in this industry have higher career outcome expectations than those in manufacturing industries. They are likely to use specific LinkedIn industry social networks (Djuric, 2019). Configuration 2 is consistent with the literature on the different uses of websites by each gender (Valencia-Ortiz et al., 2020) as women use them for career purposes (Levine & Aley, 2020). Both configurations 1 and 2 show that young people use LinkedIn which is in agreement with recently reported evidence (Zia & Malik, 2019; Statista, 2020). They also show that such employees use LinkedIn for professional purposes (Harrison & Budworth, 2015; Schneiderman, 2016; Makela & Hoff, 2019). Despite regarding employees from the services industry or women, these two configurations show that young professionals who use LinkedIn for professional purposes have higher career outcome expectations.

Configuration 3 regards people using LinkedIn frequently and for professional purposes which the literature shows have professional benefits (Davis et al., 2020). This way of using LinkedIn provides career opportunities (Fetherston et al., 2018; Ma & Leung, 2019; Schneiderman, 2016; Zia & Malik, 2019), supports the management and construction of professional careers (Schneiderman, 2016; Zia & Malik, 2019), and is positively related to reaching higher hierarchical positions (Brenner et al., 2020).

There is no solution that leads to the absence of career outcome expectations under the addressed conditions, although some participants in the study declare they do not have such expectations (23.24%), although both expectations can be felt at the same time (Tsai & Compeau, 2017). These findings reinforce the contribution of the configurations that lead to career outcome expectations, given that most of the

participants declared that they have career outcome expectations (76.76%). Having no configurations that lead to the absence of career outcome expectations indicates that employees with such prospects may have other conditions than the ones considered in this study that influence their behavior. Therefore, using the conditions in this study we were not able to identify configurations that lead to the absence of career outcome expectations and thus the answer to our second research question is negative: there are no alternative configurations of conditions that lead to the absence of career outcome expectations.

Considering that using LinkedIn for professional purposes is a necessary condition for career outcome expectations, and it is a condition in the three alternative configurations that lead to career outcome expectations, then using LinkedIn is strongly related to having career outcome expectations. Our results further clarify the research on social media's effect on career development (Avci, 2020), LinkedIn in particular (Ma & Leung, 2019), and additionally expands the knowledge on the effect of LinkedIn in promoting employability (Badoer et al., 2021) and connecting individuals to potential employers (McCool, 2019). The inexistence of alternative configurations of conditions that lead to the absence of career outcome expectations is consistent with “*a contrario*” results. These results contribute directly to extending the SCT (Bandura, 1986) and SCCT (Lent & Brown, 2006; Olson, 2014) to the digital dimension by showing that the rationale in the theory is supported when addressing the use of LinkedIn for professional purposes.

## 9. Conclusions

In this study, we add to the understanding of the social network and demographic related conditions that influence career outcome expectations. The SCT (Bandura, 1986) and SCCT rationales (Lent & Brown, 2006; Olson, 2014) postulate that the individual's career development is based on expectations. Our contribution regards the sources of such expectations (digital and demographic ones). Specifically, our results provide a clear contribution on the link between the use of LinkedIn and career outcome expectations that, according to Bandura (1986; 1999; 2005; 2009), should influence the individual's career development. Therefore, we offer the support of a digital antecedent for the individual's career development that further develops the argument that LinkedIn influences the self-efficacy of career preparation (Fetherston et al., 2018 and responding to Lent & Brown's 2019) request to study the phenomenon).

We offer evidence that using LinkedIn for professional purposes is a relevant condition (necessary but not sufficient alone) to create career outcome expectations. We identify three different configurations (1, 2 and 3) of individuals that have such high expectations. Managerial implications arise from our results. Considering that LinkedIn plays an important part in having career outcome expectations, employers should acknowledge such evidence and account for the associated consequences of adopting adequate human resource management practices, like having a LinkedIn-based recruitment process (Levine & Aley, 2020) and career progression process (McCabe, 2017).

Social media can support the HR department in talent acquisition,



learning and development initiatives, and employee engagement and communication that facilitate onboarding across the globe with on time employee support and knowledge sharing and collaboration. Thus, HR managers have a pivotal role in enhancing organizational competitive advantage through social media usage (Gandhi, 2017). Our results show that HR managers should acknowledge that employees in configurations 1, 2 and 3 have high career outcome expectations and thus they should act accordingly by monitoring and offering them solid career perspectives.

Considering that when using the conditions in this study there are no configurations leading to the absence of career outcome expectations, managers should look for determinants of such absence in other sources. Since there are employees that may experience both expectations at the same time (Tsai & Compeau, 2017), they may declare that they have no career outcome expectations (and that may have negative consequences at the performance level). Therefore, HR managers should look for the conditions that explain such a posture.

This study encompasses limitations mainly due to the qualitative nature of the research that prevents the generalization of the results. We must acknowledge that a nonrandom sample generates possible biases, although they are acceptable as a consequence of the qualitative essence of the study. Additionally, we recognize that a richer database would facilitate more analysis and possibly generate more configurations (e.g., data on the employees' hierarchical levels, or work experience), yet a relatively small number of conditions should be used in a qualitative comparative analysis (Cragun et al., 2016).

Based on our findings, we invite colleagues to measure the extent and significance of the effect of demographic and LinkedIn use variables on career outcome expectations by using traditional conventional statistical techniques to address the net effect of the use of LinkedIn on career outcome expectations. Upcoming studies can further explore the digital environment's influence by addressing the relation between the use of LinkedIn for professional purposes by employees and the employees' practice of making company-related posts on corporate social media. Additionally, colleagues may want to study the effect of the use of LinkedIn for professional purposes on other job-related aspects such as organizational citizenship or commitment. Moreover, since higher level managerial positions are positively correlated with the participation of individuals in professional social networks (Vithayathil et al., 2020), further research should clarify the use of LinkedIn for professional purposes by top managers.

## Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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