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Motivation by role models: Do they inspire or discourage us? Investigating the link between role models and entrepreneurial career intentions

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ABSTRACT

While prior research has suggested links between role models and individuals' entrepreneurial career intentions (ECIs), there is a scarcity of empirical research on the impact of entrepreneurial role models (ERMs) (i.e., positive vs negative) on employees' ECIs in small and medium-sized enterprises (SMEs). To address this gap, our study draws on social learning theory (SLT) and conducts two experimental studies to examine the impact of role models in the workplace. We collected data from 216 students in Eastern China to analyse the effects of positive role models, and 198 for negative role models. Our findings demonstrate that successful role models have a significant impact on employees' ECIs. Additionally, the fear of failure (FOF) plays a substantial role in diminishing employees' ECIs. We also find that negative role models significantly impact employees' ECIs and should not be ignored while considering the importance of attaining an entrepreneurial career. Our study contributes to the literature by shedding light on the importance of ERMs in shaping employees' ECIs and highlights the role of fear of failure in this process. Finally, the study offers implications for both theory and practice.

1. Introduction

Entrepreneurs usually state that 'others' significantly influence their decision to start an entrepreneurial career. These 'others' are typically entrepreneurs of different types and different characteristics, such as notorious individuals, colleagues, relatives, and employers (Abbasianchavari & Moritz, 2021). Such people can be understood as role models (Bosma et al., 2012). There is a consensus among researchers that observing role models enables individuals to acquire specific skills and knowledge necessary for becoming an entrepreneur.

Recent research has highlighted the significance of exposure to previous role models in initiating or expanding an entrepreneurial career. According to Gibson (2004), "role models draw on individuals' tendency to identify with others and the psychological matching of cognitive skills and behaviour patterns between a person and an observing individual" (p. 136). Early studies on the association between role models and entrepreneurial intentions have focused on parental role models, mentors, and non-family role models (Bosma et al., 2012). Research has also indicated that exposure to positive and negative role models may enable individuals to

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evaluate their ability to engage in an entrepreneurial career. While prior research has sought to illuminate the mechanism linking positive and negative role models to entrepreneurial career intention (BarNir et al., 2011; Chlosta et al., 2012), this paper adopts the social learning theory (SLT) (Bandura & Walters, 1977) as the theoretical framework to identify the impact of fear of failure and societal uncertainty avoidance in the relationship between role models and entrepreneurial career intention (ECI). By uncovering the mechanisms through which role models reinforce ECI, this study sheds light on the effectiveness of utilizing role models to increase entrepreneurial action in the real world.

Moreover, the role of fear of failure (FOF) in the association between role models and individual career intention is crucial. FOF is generally viewed and primarily investigated as an emotional factor that restricts, inhibits, and acts as a substantial barrier to entrepreneurship (Cacciotti et al., 2016; Kollmann et al., 2017). Empirical evidence suggests that FOF increases the likelihood of both inhibitory and motivating responses towards entrepreneurial action (Mitchell & Shepherd, 2011). The various perspectives of FOF (Cacciotti and Hayton, 2015) include FOF as a negative emotion (Shinnar et al., 2012) and risk aversion (Patzelt and Shepherd, 2011). However, most of these approaches have portrayed FOF as a constant individual trait (Cacciotti et al., 2016). As Wagner and Sternberg, 2004 noted, "contacts with young entrepreneurs will reduce costs because they make it easier to get answers to lots of 'how-to' type questions related to a start-up" (p. 229). We anticipate a positive impact of contact with such a "role model". In this regard, the knowledge acquired through entrepreneurial role models (ERMs) is expected to mitigate entrepreneurial FOF, which might otherwise deter people from initiating their own businesses.

Finally, we propose that Uncertainty Avoidance (UA) moderates the relationship between ERMs and entrepreneurial FOF, which is defined as "the extent to which the members of an organization or a society strive to avoid uncertainty by relying on established social norms, rituals, and bureaucratic practices" (House et al., 2004, p. 11). In a society where UA is high, people show higher FOF, less eagerness to take risks, and strong resistance to change (Hofstede et al., 2005). Empirical evidence suggests that the propensity to avoid uncertainty is likely to affect entrepreneurial intentions and the rate of entrepreneurial start-ups in a country (Mueller & Thomas, 2001). Entrepreneurship involves uncertainty and is more likely to be discouraged in a culture where UA is high than in a low UA culture. The role of UA as a moderator between role models and FOF is not yet fully understood. We argue that UA affects the strength of the association between role models and entrepreneurial FOF.

Drawing on the social learning theory (Bandura & Walters, 1977), which posits that the environment influences human attitudes and behaviour; an impressive performance and achievements of an entrepreneurial role model (ERM) will motivate others to choose a parallel career. Similarly, if the role model experiences failure or has poor results, it will diminish others' interest in selecting a similar career, and in our case, will decrease employees' ECIs. Bandura's theory stated that individuals who observe a role model's characteristics and behaviour find it easier to form their perceptions as a reflection of the role model. Numerous studies have disclosed that the existence of role models is an essential determinant that encourages individuals to carry out entrepreneurial activities (Efrata et al., 2016; Moreno-Gómez et al., 2020). From the previous concepts and research outcomes, it is concluded that ERMs could influence ECIs in two ways. First, through ERMs, a positive image is formed in individuals regarding a particular profession and the desire to have a similar career (Gibson, 2004). Second, role models could also help create a constructive image of entrepreneurial activities (Krueger & Brazeal, 1994).

Although many studies have predicted the effect of a positive role model based on the SLT (Mungai & Velamuri, 2011; Scherer et al., 1989), empirical evidence on the impact of negative role models is scarce. Prior research does not establish a relationship between the presence of an entrepreneurial founder role model and its effect on employees' ECIs. Keeping the theoretical framework of SLT, this study investigates the impact of an entrepreneurial founder as a role model on employees' ECIs.

Our study contributes to role models and entrepreneurship literature in three ways and provides implications for educational institutes and policy makers. First, our study adds to the ERMs literature by providing an overview and analyzing the outcomes of prior studies on ERMs (Abbasianchavari & Moritz, 2021; Basow & Howe, 1980; Bell, 1970; Chen et al., 2016; Downes et al., 2021; Lockwood et al., 2002, 2005; Nowiński & Haddoud, 2019; Scherer et al., 1989; Zhao et al., 2023), identifying research gaps and proposing future research direction on role models and entrepreneurial careers. Second, we contribute to the entrepreneurship literature by conducting experimental studies (Chen et al., 2016; Lockwood et al., 2002) on positive and negative role models and concluded their impact on employees' ECIs. Finally, we provided suggestions and recommendation for the educational institutes (Muofhe & Du Toit, 2011; Nowiński & Haddoud, 2019; Ratten & Jones, 2021) by highlighting that the assimilation of role models in business education could foster ECIs, minimize FOF by real-life examples and practical sessions.

2. Theoretical background

2.1. The social learning theory

Social Learning Theory (SLT) suggests that one way learning occurs is vicariously, through observing the behaviors of others, known as role models (Bandura & Walters, 1977). By watching these role models engage in different social actions, individuals take note of the rewards or consequences that the models experience. This theory stresses the continuous communal interface among the elements of people's behavior and environmental influences to understand the social cognitive learning process. Thus, learning in this theory is based on observational learning and the process is composed of four interrelated components: attentional processes, retention processes, motor reproduction processes, and motivational processes. The motivational aspect is particularly important in entrepreneurship learning, as it fosters individuals' enthusiasm towards entrepreneurship. Bandura's theory identifies that the social learning process is best understood as a continuous, reciprocal interaction between an individual's behavior and environmental factors. In our study, we used the SLT (Bandura & Walters, 1977) to explore the role and importance of social learning in the formation of ECIs.

This theory provides a framework for explaining how people learn either vicariously through role models or through their own working experiences. Role models can be individuals from various contexts, such as family members, friends, colleagues in the workplace (including founders and peers), who play a critical role in an individual's learning process and socialization. Learning can occur through verbal instructions, work demonstrations, and behavior modeling (Bandura & Walters, 1977; Falck et al., 2012; Gibson, 2004; Zhao et al., 2023). On the other hand, learning can also take place through an individual's own experiences, active engagement in activities, and mistakes, which play a crucial role in practical learning (Bandura & Walters, 1977), and in developing entrepreneurial attitudes and self-efficacy (Nowiński & Haddoud, 2019).

The SLT posits that human attitudes and behaviors vary depending on their environment and experiences. For instance, when an entrepreneurial role model performs well, they can motivate others to pursue an entrepreneurial career. Conversely, if the role model fails, it may diminish others' ECIs. Several studies suggest that the presence of role models is a crucial factor that motivates individuals to engage in similar entrepreneurial activities (Moreno-Gómez et al., 2020). While studies based on SLT have supported the positive effect of role models on entrepreneurship (Bosma et al., 2012; Mungai & Velamuri, 2011; Scherer et al., 1989), there is a lack of empirical evidence on the impact of negative role models. These findings do not align with the predictions of SLT on the effects of negative role models. Therefore, we aim to resolve these contradictions and examine how FOF plays a role in employees' ECIs while observing a business's failure or success.

2.2. Entrepreneurial role models and entrepreneurial career intentions

Role models play an important role in affecting the feasibility and perceived desirability of an entrepreneurial career (BarNir et al., 2011; Bosma et al., 2012; Fellnhofer, 2017). According to Gibson (2004), "The term 'role model' draws on two prominent theoretical constructs: the concept of role and the tendency of individuals to identify with other people … and the concept of modeling, the psychological matching of cognitive skills and patterns of behavior between a person and an observing individual'' (p. 136). Individuals are drawn to role models who share similar characteristics, behaviors, or goals (the role aspect), and from whom they can learn specific abilities or skills (the model aspect).

In the immediate context, such as family, parents often serve as a role model (Bloemen-Bekx et al., 2019; Chlosta et al., 2012; Hoffmann et al., 2015). The secondary context of role models is the established networks (Kim & Aldrich, 2005; Klyver, Hindle, & Schøtt, 2007) and peer groups (Djankov et al., 2006; Falck et al., 2012; Giannetti & Simonov, 2009; Nanda & Sørensen, 2010; Stuart & Ding, 2006) which influence individuals' decision to become an entrepreneur, while it is assumed that established networks and peer group may provide role models as they are helpful in terms of knowledge, information sharing, and motivation. This work not only involves observational learning but also helps and guides individuals on how things can be done, how and where resources can be obtained, and what factors are responsible for success and failure (Scherer et al., 1989).

It has been observed that Chinese students demonstrate a strong academic focus and are often influenced by family expectations, cultural values emphasizing stability, and perceptions of entrepreneurship as riskier compared to traditional paths. Entrepreneurial role models (ERMs) within their communities and the media also play a significant role in shaping their ECIs. Access to entrepreneurial resources and government support further shapes their ECIs, while exposure to technological innovation and global markets increasingly influences their ambitions towards entrepreneurial ventures.

Previous research indicates that ECIs is one of the most reliable predictors of an individual's desire to start a business (Chan, 2020). Scholars have concluded that ERMs could affect ECIs if they change a person's beliefs and attitudes about the perceived ability to succeed in a new venture. Role models usually refer to celebrities with whom the entrepreneur has no personal connection, such as Jack Ma or Elon Musk. On the other hand, the relationship can be more personal and include family, friends, colleagues, and bosses in SMEs, which is the theme of our study. Indeed, many studies have demonstrated the impact of ERMs on ECIs (Chlosta et al., 2012; Falck et al., 2012; Zhu et al., 2019). However, the relationship between employees and their ERMs has not yet been investigated.

Acquaintance with role models has gained attention in recent years (Austin & Nauta, 2016), particularly regarding career choices and business behaviour, focusing on their unique impact on specific careers and general motivation (Gibson, 2003). Role models serve as an example for social comparison, influencing individuals' capabilities, motivations, and perceptions of their potential futures (Buunk et al., 2007). This social comparison is crucial in career decision-making, especially amid uncertainty, as individuals often rely on it to justify and evaluate their options (Buunk et al., 2007). While it is widely accepted that role models significantly influence prospective entrepreneurs' decision-making, research on the impact of negative role models on employees' ECIs remains limited.

Although some scholars generally support a positive relationship between role models and ECIs (Bosma et al., 2012; Moreno-Gómez et al., 2020), other scholars failed to produce consistent results. For instance, Efrata et al. (2021) stated that ERMs do not have a direct impact on ECIs. Bosma et al. (2012) identified a crucial aspect in their research, emphasizing that not every successful entrepreneur serves as an exemplary ERM. This assertion underscores the nuanced nature of ERMs, suggesting that their presence does not invariably influence individuals' decisions to pursue entrepreneurial careers positively. Moreover, SLT posits that negative role models can detract individuals' inclination towards entrepreneurship. Chen et al. (2016) corroborated this perspective, highlighting that individuals with low self-esteem are particularly susceptible to the adverse effects of observing business failures, leading to a decline in their ECIs. Negative role models, typically individuals who have experienced entrepreneurial setbacks or failures, can serve as cautionary examples, motivating others to navigate away from similar circumstances (Lockwood et al., 2002). Thus, understanding

the multifaceted role of ERMs, including their potential negative influences, is critical for comprehensively assessing their impact on ECIs.

Based on the above arguments, we hypothesized the following:

Hypothesis (01). There is a significant impact of positive entrepreneurial role models on employees' ECIs and vice-versa.

Hypothesis (02). Entrepreneurial role models' displayed behavior and experiences influence employees' desirability of entrepreneurship as a career. This, in turn, affects employees' ECIs. Specifically, displayed positive emotions and experiences minimize FOF and increase employees ECIs, while negative emotions and failure experiences maximize FOF and diminish employees' ECIs.

2.3. Mediating role of entrepreneurial fear of failure

FOF is an emotional response that arises from the subjective evaluation of experiences that pose a threat to an individual's ability to achieve a personally significant goal (Conroy, 2001). Cacciotti et al. (2016) noted that "entrepreneurial FOF fluctuates over time and with experience"(p.314). Scholars have suggested that FOF in the performative context of entrepreneurship is not expected to remain constant as individuals gain entrepreneurial experience (Morris et al., 2012). During the early stages of entrepreneurship, individuals analyse the environment to construct representations of business opportunities and persistently evaluate future success or failure (Shepherd et al., 2009). Bélanger et al. (2013) provided the first empirical evidence supporting the idea that FOF can be "situationally triggered" (p. 9) and, therefore, as a mediator, affects individuals' intentions. Thus, challenges can cause developing entrepreneurs to re-experience the adverse consequences associated with previous failure events and the perceived risk of losses and an uncertain future (Conroy, 2003).

Scholars have noted that FOF negatively influences entrepreneurship as an anticipated occupational choice (Arenius & Minniti, 2005; Chua & Bedford, 2016). Research indicates that reducing these perceptions, such as through motivation from positive role models, can increase entrepreneurial intentions and the likelihood of starting a business (Arenius & Minniti, 2005; Langowitz & Minniti, 2007). However, the emergence of FOF once a business is operational and how entrepreneurs manage it remains underexplored (Cacciotti et al., 2016; Cacciotti & Hayton, 2015). Unlike in nascent contexts, where FOF may stimulate entrepreneurial avoidance, it could also serve as a motivation to overcome the threat of failure in established businesses (Morgan & Sisak, 2016), especially when influenced by a founder role model. Our experimental context aims to examine the impact of positive and negative role models and how individuals relate to these influences differently. Furthermore, prominent scholars have categorized FOF by operational variation, viewing it as a barrier towards entrepreneurial intentions and behaviour (Arenius & Minniti, 2005; Chua & Bedford, 2016; Mitchell & Shepherd, 2011).

Thus, we conclude that FOF varies with time, situations, and experiences. In our case, it may vary with the inputs from role models. Therefore, we hypothesized that:

Hypothesis (03). Fear of failure is negatively correlated with employees' ECIs. However, this relationship is influenced by the inputs, a negative role model could trigger fear to an alarming level while a positive role model could help sustain and minimize the fear level of employees intending to start an entrepreneurial career.

2.4. Moderating role of uncertainty avoidance

Hofstede (2001) identified uncertainty avoidance as one of the distinct cultural dimensions, which is defined as "the extent to which the members of a culture feel threatened by uncertain or unknown situations." Generally, some cultures tend to be more accepting of entrepreneurial initiatives than others (Lee & Peterson, 2000). This concept is related to the crucial characteristic of an entrepreneur's willingness and tolerance towards risk and uncertainty (Wennekers et al., 2007). Individuals in cultures that rank high on UA are likely to feel unwilling to engage when facing a risky situation (Shinnar et al., 2012). As UA is associated with FOF and a tendency to avoid competition, it can be a significant obstacle to developing entrepreneurial careers and starting businesses (Baughn & Neupert, 2003). For instance, Kreiser et al. (2010) found a negative relationship between societal UA and innovation.

Societies that place a high emphasis on UA tend to expect individuals to take sensible and calculated risks and lead a structured life (Venaik & Brewer, 2010). Conversely, societies that are less focused on UA tend to embrace change, take risks, and are more willing to pursue unfamiliar career paths (Hofstede, 2001; Venaik & Brewer, 2010). In cultures that value predictability, being an entrepreneurial founder may be associated with relatively low social appreciation and status, and a stable job may be preferred (Autio et al., 2013). Based on these arguments, we suggest that societal UA will have a negative association with employees' inclination to strengthen their ECIs and engage in entrepreneurial start-ups.

Hypothesis (04). The relationship between entrepreneurial role models and FOF will be negatively moderated by the level of societal uncertainty avoidance (Fig. 1).

3. Study 1: Methods

Since we conducted two studies, namely, "Entrepreneurial Positive Role Models" and "Entrepreneurial Negative Role Models," Study 1 solely focuses on the data analysis, results, and hypothesis testing of positive role models.

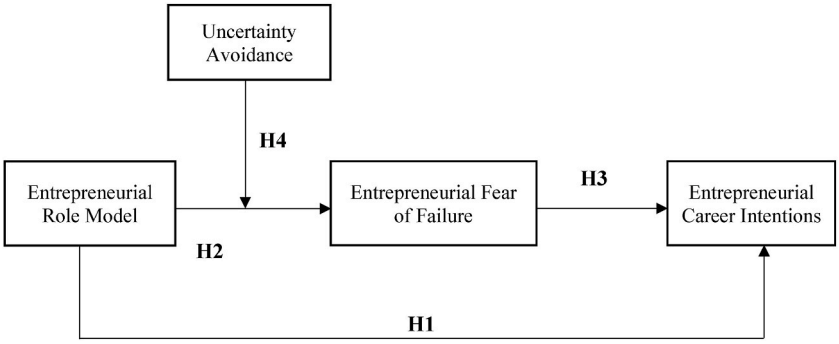

Fig. 1. Conceptual model of the Study.

3.1. Data collection and sampling

Study 1 involved 216 students (142 men, 74 women) from a large public university in Anhui, Eastern China. We collected data through WeChat[1] groups on campus by sharing the online questionnaire link with the consent of the admin, which enabled us to capture data from the target audience. Additionally, we used the snowball sampling technique and asked our colleagues/friends on campus to help us circulate the link in their personal capacity as our intentions were to target international students as well for result generalization. As USTC is home to students from all over China and around the world, we managed to involve international students and succeeded with 49% ratio of Chinese and 51% international students, including 43% Pakistanis as USTC hosts maximum number of Pakistani[2] students. This can help us generalize the results to central and southeast Asia.

Further, a cover letter was attached to the link to communicate the scope and purpose of the study. In the cover letter, we stated that the participation in the survey is voluntary, there are no right or wrong answers, and data would be confidential and used only in aggregated form for academic research. Moreover, we had two different links for positive and negative role models scenarios, initially we distributed the first link in the targeted groups for the positive role models scenario, followed by the link for negative role models scenario in a different set of groups two weeks later as planned. Over these two weeks, after multiple reminders, we obtained 238 responses. However, we removed 22 datasets due to two reasons as part of the manipulation check. We identified and removed responses that were completed in much less time than the average. Subsequently we also noted that all those participants who took less time on questionnaire only selected “Strongly Agree” or “Strongly Disagree” option for all questions. Finally, we retained a final set of 216 participants for further analysis.

To empirically test our proposed research model, we conducted an online tailored experimental scenario. As our target population includes people in Eastern China, including international students, we used the "double translation protocol" method (Brislin, 1980) to translate the initially English-language questionnaire into Chinese and finalized a bilingual questionnaire. The questionnaire was reviewed by academic professionals from the School of Management, including a university professor, two postdoctoral fellows, and senior PhD colleagues. We also conducted a pilot study to check the clarity and legibility of the study with 14 lab mates. None of the participants reported any misunderstanding or confusion regarding the questionnaire. Tables 1 and 2 provide information on the participants’ age, education, and demographics.

We also asked for the participant’s working experiences if it had an impact on entrepreneurial intentions, of which 175 participants (81%) stated 0–5 years, 23 (10.6%) marked 6–10 years, and the rest ticked more than 10 years.

3.2. Data analysis

We used IBM SPSS 26 and IBM AMOS to conduct data analysis in our study. SPSS was used for conducting descriptive analysis on our data while AMOS was used for Structural equation modeling (SEM) to test the hypothesized relationships of the study. First, the measurement model was used to establish the relationship between latent variables and their measures in the model and thereby established the reliability and validity of constructs. The structural model was then used to establish the relationship between the latent variables and thereby used to examine the significance of hypothesized relationships. Data analysis technique remains the same for Study 2.

3.3. Measures

There were two scenarios, high and low role models, or entrepreneurial control and entrepreneurial failure condition. A similar

[1] WeChat is a popular social networking app in China. It has reached monthly active users of 1 billion in 2018 (www.xinhuanet.com) http://www.xinhuanet.com/politics/2018-03/05/c_1122488991.htm.

[2] Currently, there are 385 Pakistani students enrolled at USTC out of 737 International students. This figure is obtained from the International College of USTC as the link attach only provides overall figures (https://en.ustc.edu.cn/About/up/Facts__Figures.htm).

Table 1
Sample demographic information (study 1).

Variable	Category	Number	Percentage
Gender	Male	142	65.7
	Female	74	34.4
Age	<25 years	45	20.8
	25–29 years	94	44.9
	30–34 years	49	22.7
	35–39 years	18	8.3
	>40 years	3	1.4
Education	Undergraduates	36	16.7
	Master's	111	51.4
	Ph.D.	66	30.6
	Postdoc	6	2.8
Field of Education	Business	68	31.5
	Non-Business	148	68.5

Table 2
Sample geographic distribution.

Country	Frequency	Percent	Valid Percent
China	106	49.1	49.1
Pakistan	92	42.6	42.6
USA	5	2.3	2.3
Russia	3	1.4	1.4
South Korea	3	1.4	1.4
Afghanistan	3	1.4	1.4
Iran	1	.5	.5
Africa	1	.5	.5
Togo	1	.5	.5
Zambia	1	.5	.5
Total	216	100.0	100.0

study was conducted by Chen (Chen et al., 2016), in their research, the authors investigated students' self-esteem to see how high versus low self-esteem students relate to entrepreneurial failure. Based on role models research, we designed a scenario to determine how entrepreneurial founder as a role model impacts employees' ECIs.

3.4. Scenario 1

Having an interest in becoming an entrepreneur, Li enrolled in an MBA program at a large public university in mainland China and graduated last year … A complete scenario can be found in Appendix A. The participants were asked to carefully read the scenario and answer the questionnaire while considering themselves as Li.

3.4.1. Control variables

We included two control variables; gender, and education, as they may impact our study. Many scholars found that women are less frequently engaged in entrepreneurial activities than men (Marlow & Patton, 2005). We also controlled for education because the participants in this study are from Business/Non-Business educational background. This control is essential as business students typically receive more comprehensive training in entrepreneurship (Shirokova et al., 2016), which can influence their FOF and ECIs differently compared to non-business students.

3.4.2. Entrepreneurial decision

After reading the scenario, the participants responded to a questionnaire that addressed the Entrepreneurial Decision-Making Scale (Chen et al., 1998) on a measurement scale from 1 (very little) to 5 (very much).

3.4.3. Uncertainty Avoidance

Uncertainty avoidance was operationalized using a 7-point Likert scale derived from the GLOBE research project. Uncertainty avoidance index of societal practices (Venaik & Brewer, 2010). The items ranged from 1 (definitely not) to 7 (definitely yes).

3.4.4. Entrepreneurial fear of failure

This measurement was developed by Cacciotti and Hayton (2015) and is modified and limited to individual intentions as our study does not include actual entrepreneurial behavior. The items were measured through a 5-point scale format (1 = strongly disagree; 5 = strongly agree).

3.4.5. Entrepreneurial career intentions

We measured ECIs with four items from (BarNir et al., 2011) on a seven-point Likert-type scale ranging from 1 (definitely not) to 7 (definitely yes).

4. Results

4.1. Manipulation check

The participants were asked to rate a six-point Likert scale on whether they agree or disagree to the questions about Wang's success and failure. This also included reverse-coding items as we asked if Wang failed as an entrepreneur (Chen et al., 2016). The manipulation check results fulfilled our expectations, and we found that the participants were affected by the entrepreneurial success story: The participants in study 1 (M = 4.85, SD = .748) reported that Wang succeeded as an entrepreneur than they answered that Wang failed as an entrepreneur (M = 2.02, SD = .691). Thus, the manipulation was effective. Moreover, we removed participants if they took less than 3.5 min as the average time was 6.54 min, however we analyse that 3.5 min is enough for above average reader. Thus, to confirm this, we double check point 2 based on their answers and mostly those who finished in the shortest time chose "All agree, or All disagree" options for all questions which were removed from data analysis. Hence, we removed 22 datasets from Study 1.

4.2. Common method bias

We used procedural and statistical methods to overcome CMB in our study as the data was collected from one source at a single point for each study, which might have a problem of CMB (Podsakoff et al., 2012). The two studies were spaced two weeks apart, with the questionnaire for positive role models distributed first, followed by the negative role model questionnaire. Despite this, concerns about CMB remained, prompting us to implement pre-remedial strategies recommended by Spector and Brannick (1995) to ensure participant anonymity and confidentiality. Furthermore, we utilized two statistical techniques to examine CMB, including Harman single factor analysis which states that if all the variables under a study are considered as a single factor and it explain the majority of the variance, which is more than 50%, common method bias may be present in the data (Harman, 1976; Podsakoff et al., 2003). To apply this test, we conducted an exploratory factor analysis using SPSS 26, combining all variables into a single factor. In study 1, the first factor demonstrates 27.90% of the variance, which is much lower than the acceptable ratio. Finally, we also assessed the CMB by using the full collinearity VIF test suggest by Kock (2015), who argued that if all of the VIF scores were less than 3.3, "the model can be considered free of common method bias." The full collinearity VIF score for Study 1 ranged from 1.02 to 1.11, suggesting that CMB is not an issue in our case.

4.3. Sampling adequacy

In Study 1, the positive role model KMO value is .812 and Bartlett's Test of Sphericity Approx. Chi-Square is 3187.966, df value is 210 with a 1% significant level. Hence the sampling adequacy implies that our data is adequate for further factor analysis.

4.4. Structural model assessment

We measured confirmatory factor analysis (CFA), using AMOS 26 to compute the convergent and discriminant validity of the four constructs. The CFA analysis results show that the model fits the four constructs measurement. The chi-square value (CMIN) is 289.188 and degree of freedom (DF) is 130. The CMIN/DF is 2.225, indicating an acceptable fit of the sample data and hypothetical model. The comparative fit index (CFI) = .943 Tucker-Lewis Index (TLI) = .917, Incremental Fit Index (IFI) = .944, root mean square error of approximation (RMSEA) = .075 and the standardized root mean square residual (SRMR) is .0695 (Hu & Bentler, 1999).

4.5. Internal consistency

To establish the reliability and validity of the scale, AVE, and Cronbach's alpha (Cronbach, 1951) reliabilities were computed. The standardized factor loading of entrepreneurial decision-making 4 items is between .73 and .94, Cronbach alpha .879, AVE .589, square root of AVE is .768 and composite reliability value is .876. Similarly, the uncertainty avoidance 3 items standardized factor loading falls in .71 and .89, Cronbach alpha .784, AVE .627, square root of AVE is .793 and composite reliability value is .834. FOF 5 items standardized factor loading falls between .73 and .87, Cronbach alpha .881, AVE .664, square root of AVE is .814 and composite reliability value is .922. Lastly, ECIs 4 items standardized factor loading occurs between .87 and .94, Cronbach alpha .949, AVE .722, square root of AVE .85 and composite reliability .912.

Nevertheless, we removed one item from entrepreneurial decision making, as well as from UA and FOF due to low factor loadings. All our variables had an alpha coefficient greater than the threshold level, indicating a higher level of internal consistency. Moreover, all the variables have a composite reliability value greater than .83, implying that our latent variables have a high level of internal stability.

The intercorrelation between the two constructs is less than the square root of the AVE values of all pairs of constructs (see Table 3) (Fornell & Larcker, 1981), thereby providing proof of discriminant validity.

Table 3
Fornell larcker criterion (discriminant validity test).

Variable	Mean	SD	1	2	3	4	5	6
1. Gender	1.342	.475						
2. Education	1.68	.465	.27					
3. EDM	4.06	.637	.110	-.182**	**.768**			
4. UA	4.15	.883	.128	−.063	.096	**.792**		
5. FOF	2.33	.538	-.148*	−.077	-.294**	-.152*	**.814**	
6. ECIs	5.32	1.22	−.034	-.168*	.603**	−.056	-.391**	**.850**

Note: N = 218, *p < 0.05, **p < 0.01. SD = Standard deviation, EDM = Entrepreneurial decision making, UA = Uncertainty avoidance, FOF = Fear of failure, and ECIs = Entrepreneurial career intentions. The bold values on the diagonals are the square roots of the AVE values of the constructs.

4.6. Test of normality

Normality test is one of the key postulations of Structural Equation Modeling. Therefore, we conducted Normality tests on data using the assessment of normality tool in IBM SPSS 26 (Cain et al., 2017). In Table 4, we got the Skewness and kurtosis values for all the variables in the model. As we know, Skewness measures the extent to which the distribution of data deviates from symmetry, and kurtosis measures the peakedness of the data distribution. A variable is supposed to be normal when the skewness value is between +2 and −2, and the kurtosis value is between the +7 and −7 range. The skewness and kurtosis values for all our variables are within an acceptable range, signifying that our variables are normally distributed.

4.6.1. Hypothesis testing

As presented in Table 5, our exogenous variables have a statistically significant impact on our endogenous variables. Our first hypothesis pertained to the relationship between positive role models and ECI. The findings reveal that a one-unit increase in entrepreneurial motivation results in a 1.131 unit increase in employees' ECI, which is significant at a 1% level of significance. A comprehensive table of hypothesis testing outcomes, including their corresponding p-values, is available in Table 5. Furthermore, we extracted a separate table (see Table 6) to find out the impact of UA as a mediator with FOF as a dependent variable. To simplify analysis, we plotted this important interaction effect in Fig. 2 by comparing high UA fit (i.e., one SD above the mean) with low UA fit (i.e., one SD below the mean). We also performed a simple slope test shown in Fig. 2 (Aiken et al., 1991).

5. Study 2: Methods

Study 2 analyzed the impact of negative role models in entrepreneurship and their effect on employees' ECIs. This section discusses the data analysis, results, and hypothesis testing of study 2, i.e., the impact of negative role models.

5.1. Data collection and sampling

In study 2, we observed the impact of negative role models on employees' ECI. Participants included 198 students (80 men, 118 women) from a large public university in Anhui, Eastern China. The data collection technique was the same as in study 1, however in study 2 as planned, we circulated the link in different groups[3] to obtain feedback from students who did not participate in the first study. We also informed the participants that if they participated in role models study earlier from any group or privately transferred link, they are requested not to fill out the questionnaire again. After multiple reminders for two weeks, we received a total of 231 responses and removed 33 based on the same procedure detailed in study 1. For the participant's educational background, demographics, and age, refer to Tables 7 and 8. We also inquired about the candidates' working experience to determine if it impacted ECI, of which 98 (49.5%) stated 0–5 years, 72 (36.4%) marked 6–10 years and the remainder selected more than 10 years.

5.2. Measures

In study two, we added one more sentence about entrepreneurial failure conditions. The rest of the scales are the same as in study 1.

5.3. Scenario 2

Having an interest in becoming an entrepreneur … In scenario 2, we added that Wang failed as an entrepreneur. A complete scenario can be found in Appendix A.

[3] Different classes and years groups on campus such as IMBA2021, International Students Group 2021, IMBA2022, International Students Group 2022, Chinese Language Corner etc.

Table 4
Assessment of normality.

Variable	Min	Max	Skew	Kurtosis
Entrepreneurial Decision Making	2	5	−.374	−.778
Uncertainty Avoidance	1.75	6.25	−.267	.507
Fear of Failure	1.22	4.00	.527	1.016
Entrepreneurial Career Intentions	2.25	7.00	−.295	−.603

Table 5
Regression weights.

Hypothesis	Dependent Variable		Independent Variable	Estimate	S.E.	t	P Value
H1	Career Intentions	<—	Entrepreneurial Decision	1.131	.137	8.235	***
H2	Fear of Failure	<—	Entrepreneurial Decision	−.263	.065	−4.041	***
H3	Career Intentions	<—	Fear of Failure	−.844	.145	−5.820	***
H4	Fear of Failure	<—	ED*UA	−.030	.029	1.036	.300
H5	Fear of Failure	<—	Gender	−.014	.064	−.219	.826
H6	Fear of Failure	<—	Education	−.208	.067	−3.101	**
H7	Fear of Failure	<—	Uncertainty Avoidance	−.155	.048	−3.229	**
H8	Career Intentions	<—	Uncertainty Avoidance	−.306	.099	−3.078	**
H9	Career Intentions	<—	Gender	−.210	.131	−1.611	.107
H10	Career Intentions	<—	Education	−.327	.138	−2.374	*

Note: N = 216, ***p < 0.001, **p < 0.01, *p < 0.05.

Table 6
Moderating Role of Uncertainty Avoidance (Dependent variable = Fear of Failure).

Variable	b	se	R^2
			.48
ED	−.263***	.065	
UA	−.155	.048	
UA*ED	.030	.029	
Gender	−.014	.064	
Education	−.208	.067	

***p < 0.001; **p < 0.01, *p < 0.05.

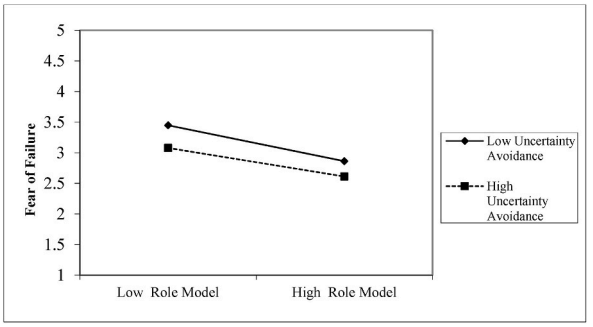

Fig. 2. Moderating effect of UA on the ERM-FOF relationship.

6. Results

6.1. Manipulation check

The participants were asked to rate a six-point Likert scale that whether they agree or disagree to the questions about Wang's success and failure. This also included reverse-coding items as we asked if Wang succeeded as an entrepreneur (Chen et al., 2016). The participants in study 2 (M = 4.68, SD = .782) were more likely to report that Wang failed as an entrepreneur than they answer that Wang succeeded as an entrepreneur (M = 2.33, SD = .652). Thus, the manipulation was effective. Moreover, we removed participants if they took less than 3.8 min as the average time was 7.0 min, however we analyse that 3.8 min is enough for above average reader. Thus, to confirm this, we double check point 2 based on their answers and mostly those who finished in shortest time choses "All agree,

Table 7
Sample demographic information (study 2).

Variable	Category	Number	Percentage
Gender	Male	80	40.4
	Female	118	59.6
Age	<25 years	32	16.2
	25–29 years	91	46.0
	30–34 years	48	24.2
	35–39 years	23	11.6
	>40 years	4	2.0
Education	Undergraduates	93	47.0
	Master's	59	29.8
	Ph.D.	25	12.6
	Postdoc	3	1.5
	Other	18	9.1
Field of Education	Business	42	21.2
	Non-Business	156	78.8

Table 8
Sample geographic distribution.

Country	Frequency	Percent	Valid Percent
China	133	67.2	67.2
Pakistan	54	27.3	27.3
Afghanistan	6	3.0	3.0
Kenya	2	1.0	1.0
Nepal	2	1.0	1.0
Canada	1	.50	.50
Total	198	100.0	100.0

or All disagree" options for all questions which were removed from further data analysis. In total, we removed 33 datasets from Study 2.

6.2. Common method bias

We used the same procedural and statistical methods as discussed in detail in Study 1 to examine CMB. In study 2, Harman's single factor analysis demonstrates 15.26% of the variance which is much lower than the acceptable ratio (Harman, 1976). The full collinearity VIF score for Study 2 ranged from 1.003 to 1.005, which is less than the standard score of 3.3, suggested by Kock (2015) for the model to be considered as free of CMB.

6.3. Sampling adequacy

In study 2, the negative role model KMO value is .857 and Bartlett's Test of Sphericity Approx. Chi-Square is 2741.817, df value is 231 with 1% significant level. The sampling adequacy implies that our data is satisfactory for further factor analysis.

6.4. Structural model assessment

The CFA analysis result shows that the model fits the four constructs measurement. The chi-square value (CMIN) is 280.298, and degree of freedom (DF) is 224. The CMIN/DF is 1.251, indicating an acceptable fit of the sample data and hypothetical model. The comparative fit index (CFI) = .978 Tucker-Lewis Index (TLI) = .973, Incremental Fit Index (IFI) = .979, root mean square error of approximation (RMSEA) = .036 and the standardized root mean square residual (SRMR) is .0736 (Hu & Bentler, 1999).

6.5. Internal consistency

To establish the reliability and validity of our scale, we computed the average variance extracted (AVE) and Cronbach's alpha (Cronbach, 1951) reliabilities. For the 5 items related to entrepreneurial decision-making, the standardized factor loading ranged between .71 and .91, the Cronbach alpha is .906, the AVE is .673, the square root of AVE is .820, and the composite reliability value is .910. Similarly, for the 3 items related to UA, the standardized factor loading ranged between .72 and .78, the Cronbach alpha is .794, the AVE is .558, the square root of AVE is .747, and the composite reliability value is .791. For the 6 items related to FOF, the standardized factor loading ranged between .71 and .78, the Cronbach alpha is .905, the AVE is .566, the square root of AVE is .752, and the composite reliability value is .902. Finally, for the 4 items related to ECIs, the standardized factor loading ranged between .77 and .93, the Cronbach alpha is .879, the AVE is .751, the square root of AVE is .867, and the composite reliability value is .923.

We did, however, removed one item from the UA variable due to low factor loadings. All our variables have an alpha coefficient greater than the threshold level, indicating a high level of internal consistency. Moreover, all the variables have a composite reliability value greater than .79, implying that our latent variables have a high level of internal stability.

A latent variable has discriminant validity if the square root of its AVE is greater than its correlation with other latent variables. In our study, the variables ECI and FOF have a problem of discriminant validity, as their correlation coefficient is greater than the AVE of FOF. However, this is not a major concern as ECI is a dependent variable, and FOF is an independent variable. The intercorrelation between the other constructs is less than the square root of their respective AVE values (see Table 9) (Fornell & Larcker, 1981), proving no issue of discriminant validity.

6.6. Test of normality

Normality test is one of the key postulations of Structural Equation Modeling. Therefore, we have conducted Normality tests (see Table 10) on data using the assessment of normality tool in IBM SPSS 26 (Cain et al., 2017). The skewness and kurtosis values for all our variables are within satisfactory range, signifying that our variables are normally distributed.

6.7. Hypothesis testing

In Study 2, we hypothesized that negative role models have a significant impact on employees' ECI. Our results were highly significant, and we found that a one-unit increase in motivation from a negative role model would only lead to an increase of .515 units in employees ECI, which means that the motivation from ERM who face failure or uncertainty is much lower than that of a successful ERM. As in study 1, we analyzed that if the motivation from a successful ERM increases by one unit, employees' ECIs will increase by 1.11 units. So, our proposed hypothesis 1 for Study 2 is fully supported, and the relationship is significant at the 1% level. A detailed summary of the hypothesis testing result can be found in Table 11. Furthermore, we extracted a separate table (see Table 12) to find out the impact of UA as a mediator with FOF as a dependent variable. Finally, to facilitate interpretation, we plotted this considerable interaction effect in Fig. 3 by comparing high UA fit (i.e., one SD above the mean) with low UA fit (i.e., one SD below the mean). We also performed a simple slope test, shown in Fig. 3 (Aiken et al., 1991).

Interestingly, in study 2, gender and education have no significant impact. The possible reason could be that most participants in study 2 are aged and marked years of working experience compared to study 1. As for the educational background in study 2, very limited participants marked their education background as business studies, which could be why education also has no significant impact in study 2.

7. Discussion

This study provides empirical evidence of how entrepreneurial positive role model influence employees' ECIs and how this relationship interacts with FOF as a mediator. Out of 10 proposed hypotheses, seven are accepted, and three are rejected in Study 1. The data analysis shows that H1, H2, and H3 are accepted, which indicate that the existence of entrepreneurial positive role model in the workplace encourages and strengthen employees' ECIs. Bosma et al. (2012) investigated the impact of positive entrepreneurial role models on startup success. They collected data from entrepreneurs, assessing the presence and significance of these role models, as well as the resemblance and strength of their relationships with entrepreneurs. However, our study is focused on employees' ECIs, and we also included the impact of negative role models; therefore, this is the first study to fill this gap. In general, scholars paid limited attention to studying entrepreneurial role models and its impact on employees' ECIs. Besides some conceptual studies constructing a relation among role models and ECIs, empirical research on the significance of role models in the workplace is scarce. There is still limited information and partial knowledge about what defines the use of specific role models and how they influence employees' ECIs.

In Study 1, an empirical study gathered data from 216 students in Eastern China to explore the impact of ERMs on employees in SMEs. Specifically, the research addressed whether employees are influenced by positive role models and how they relate to their founders as an ERM. Results indicated that successful founders significantly enhance employees' entrepreneurial aspirations in SMEs. Employees joining SMEs for entrepreneurial experience are motivated by working alongside such founders, seeing them as role models.

Table 9
Fornell larcker criterion (discriminant validity test).

Variable	Mean	SD	1	2	3	4	5	6
1. Gender	1.596	.491						
2. Education	1.545	.499	.137					
3. EDM	2.523	.838	−.095	−.072	**.823**			
4. UA	3.573	.853	.074	.013	.251**	**.747**		
5. FOF	3.365	.700	−.021	.034	-.297**	−.058	**.752**	
6. ECIs	3.423	1.131	−.077	−.060	.624**	.113	*-.87***	**.867**

Note: N = 198, *p < 0.05, **p < 0.01. SD = Standard deviation, EDM = Entrepreneurial decision making, UA = Uncertainty avoidance, FOF = Fear of failure, and ECIs = Entrepreneurial career intentions. The bold values on the diagonals are the square roots of the AVE values of the constructs. The number in Italic shows violation of discriminant validity.

Table 10
Assessment of normality.

Variable	Min	Max	Skew	Kurtosis
Entrepreneurial Decision Making	1.00	5	.833	.312
Uncertainty Avoidance	2.00	5.75	.228	−.534
Fear of Failure	1.00	5.11	−1.015	2.108
Entrepreneurial Career Intentions	1.00	7.00	.827	.434

Table 11
Regression weights.

Hypothesis	Dependent Variable		Independent Variable	Estimate	S.E.	t	P Value
H1	Career Intentions	<—	Entrepreneurial Decision	.515	.091	5.671	***
H2	Fear of Failure	<—	Entrepreneurial Decision	−.379	.076	−4.962	***
H3	Career Intentions	<—	Fear of Failure	−.118	.058	−2.304	*
H4	Fear of Failure	<—	ED*UA	.164	.046	3.596	***
H5	Fear of Failure	<—	Gender	−.099	.092	−1.079	.281
H6	Fear of Failure	<—	Education	.037	.091	.411	.681
H7	Fear of Failure	<—	Uncertainty Avoidance	.028	.081	.349	.727
H8	Career Intentions	<—	Uncertainty Avoidance	−.066	.059	−1.117	.264
H9	Career Intentions	<—	Gender	−.021	.066	−.322	.748
H10	Career Intentions	<—	Education	−.043	.065	−.658	.510

Note: N = 198, ***p < 0.001; **p < 0.01, *p < 0.05.

Table 12
Moderating Role of Uncertainty Avoidance (Dependent variable = Fear of Failure).

Variable	b	se	R^2
			.42
ED	−.379***	.076	
UA	.028	.081	
UA*ED	.164***	.046	
Gender	−.099	.092	
Education	.037	.091	

***p < 0.001; **p < 0.01, *p < 0.05.

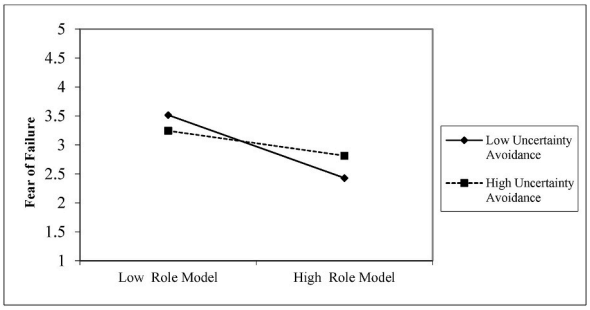

Fig. 3. Moderating effect of UA on the ERM-FOF relationship.

Moreover, educational institutions could also play a pivotal role in this arena to improve students' ECIs by integrating lectures, seminars, and practical tasks led by ERMs with real-world entrepreneurial experiences and successful ventures. These activities should involve tangible challenges and hands-on experiences, preparing students for entrepreneurship while simultaneously enhancing their skills, mitigating FOF, and fostering resilience. The research findings are in line with previous research, which showed that ERMs has a positive impact on ECIs (Boyd & Vozikis, 1994; Krueger & Carsrud, 1993; Moreno-Gómez et al., 2020; Nauta & Kokaly, 2001; Scherer et al., 1991; Zhu et al., 2019).

The primary function of a role model is to be a good example and be compassionate, which will help maximize employees' ECIs and motivate them towards an entrepreneurial career. Bosma et al. (2012) found that one-third of the entrepreneurs claimed that they would never have started their entrepreneurial careers without role models. We found the role models and employees' ECIs relationship with a 1% significance level. These findings are consistent with both social learning and role identification theory. Thus, it is

essential for fresh graduates who have entrepreneurial intentions to work side-by-side with the entrepreneurial founder in SMEs. This exposure will help the prospective entrepreneur to learn by example and get instant support to boost their ECIs.

Moreover, we found that the support and guidance from a role model minimize FOF. Our study discovered that if there is a unit increase in role models' motivation, the FOF will decrease by .263 units. Hence, a positive role model not only strengthens one's ECIs but also minimizes FOF and induces one to persuade his/her goals. Our findings are aligning with Li (2011) and Welpe et al. (2012) who stated that FOF is a negative emotional state that leads entrepreneurs to have a less favorable view of opportunities (Kollmann et al., 2017). Therefore, with a positive role model and support, FOF can be overcome. These findings are in contradiction with some scholars who have a different opinion about FOF and define it as a stable motive disposition that leads people to avoid starting a self-startup (Arenius & Minniti, 2005; Minniti & Nardone, 2007). As supposed in our hypothesis 3, FOF has a substantial direct impact on career intention, and with one unit increase in FOF, career intention decreases by .884 units. But with a positive role model input, there is no massive impact of FOF as a mediator between ERM and ECI. Hence this study also concluded that FOF is an emotional state, and it can vary with different inputs and circumstances.

In study 1, we also supposed that UA plays a moderating role between ERMs and FOF. After data analysis, we concluded that there is no significant role of UA as a moderator. This may be because of the substantial positive impact of the role model or diversity of the population, as more than 50% of the respondents are from different cultures and backgrounds and even Chinese who are living and studying in urban areas have little consideration for societal UA. Though, UA does have a direct negative impact on FOF and career intentions with a 5% significance level.

Furthermore, this research also specifies empirical evidence that how entrepreneurial negative role models (Study 2) decreases employees' ECIs and how entrepreneurial FOF mediate this relationship. Out of 10 hypotheses, including control variables, four are accepted, and six are rejected in Study 2. The data analysis shows that H1, H2, H3, and H4 are accepted, indicating that an entrepreneurial negative role model decreases employees' ECIs. Negative role models could dampen employees' enthusiasm towards an entrepreneurial career. There are few studies on entrepreneurial positive role models, but articles on negative role models are scarce (Chen et al., 2016). Lockwood et al. (2002) contributed to this regard as they conducted experiments to study regulatory focus, i.e., promotion and prevention strategies of students while observing an academic success or failure of their fellow as a role model.

In study 2, we found that a negative role model has an impact on employee's ECIs. If role model face failure or uncertainty in the business and the motivation from role models increases by one unit, the employee's ECIs would only increase by .515 units which means that the inspiration from an unsuccessful ERM is much lower than that of a successful ERM. As in study 1, we analyzed that if a role model motivation increases by one unit, employees' ECIs will increase by 1.11 units. Thus, we concluded that positive role models have a higher impact on employees' ECI than negative role models. Our findings are aligning with those of Lockwood who concluded that most individuals (73%) generate positive role models rather than negative ones (Lockwood et al., 2002).

In Study 2, we also observed that exposure to a negative role model heightens FOF, prompting employees to actively avoid similar behavior and outcomes. This effect is particularly pronounced in uncertain and ambiguous situations. While prior research suggests that FOF mainly affects aspiring or early-stage entrepreneurs and inhibits them from actual entrepreneurial behavior (Arenius & Minniti, 2005; Langowitz & Minniti, 2007), our study focuses on employees ECIs, potentially explaining their heightened FOF when confronted with entrepreneurial challenges. We concluded that FOF is not a stable motive inclination that hinder people from starting a new venture. In both studies, we found that FOF varies upon the situation (Li, 2011; Welpe et al., 2012). Similarly, UA plays a significant role in demoralization from negative role models. When employees witnessed the devastating outcomes and are demoralized, it is more likely that they will consider societal and cultural factors to stay safe and not to get into a situation where someone failed recently.

7.1. Theoretical implications

Our research has numerous theoretical implications. First, our study contributes to the SLT, which predicts that negative role models reduce individuals' ECIs to pursue an entrepreneurial career. These findings are conditionally supported by Chen et al. (2016) who stated that negative role models decrease entrepreneurial intention of individuals with low self-esteem. Furthermore, in line with the work of Moreno-Gómez et al., 2020 it can be suggested that experiencing negative role models contributes to FOF that negatively affects ECIs. Moreover, Lockwood et al. (2002) also affirms such a view that negative role models lead to reduced incentives to perform entrepreneurial tasks.

Second, the findings regarding positive role models suggest that employees' ECIs increases in the workplace when they work alongside a successful role model, such as their boss, in SMEs. Previous literature on entrepreneurship has studied the role of workplace colleagues in influencing ECIs and actual behaviour (Nandra & Sorenson, 2010). Thus, our study adds to the literature by including and examining the impact of the entrepreneurial boss as a role model in the workplace. Moreover, Abbasianchavari and Moritz (2021) have pointed out that where positive role models exist, the motivation and self-efficacy of the employees will rise in tandem with their ECIs. Since our study expands some of these ideas, it can contribute to this debate.

Third, we concluded that the impact is substantial when the relationship with the role model is strong, such as working alongside the founder as an ERM. Previous studies have shown that entrepreneurs are usually inspired by positive role models to achieve their goals (Chen et al., 2016; Lockwood & Kunda, 1999). A study conducted by Bosma et al. (2012) on entrepreneurs concluded that 81% of entrepreneurs have had a successful role model before starting their entrepreneurial venture. Lockwood et al. (2002) also found that most individuals (73%) generate positive role models rather than negative ones. Whereas in our study, we found that the impact of positive role models is greater than that of negative role models.

7.2. Practical implications

This study has important practical implications. First, entrepreneurial initiatives stimulate economic growth and development (Audretsch & Phillips, 2007). Therefore, academic institutions should encourage and train students from different majors to seek entrepreneurial careers in the global competitive market (Fossatti et al., 2023). However, entrepreneurship is a path filled with uncertainty and risk of failure (Kiani et al., 2022), and business school instructors should focus on teaching the key entrepreneurial mindsets and new skills that help make a successful entrepreneur (Jones et al., 2021; Ratten & Jones, 2021). As it has been proved that Chinese university students improved their competency by participating in entrepreneurial competition (Ratten & Jones, 2021). So, faculty members should guide, train, and prepare students to overcome fear and learn from others' failures. As Jack Ma once stated, "A good entrepreneur should learn from others' mistakes." FOF can also provide useful information to predict individuals' persistence or withdrawal from entrepreneurial action. Therefore, carefully examining individuals' FOF can be an essential reference point to explore and weigh the advantages and disadvantages of pursuing a business idea (Kollmann et al., 2017).

Finally, it should also be noted that an entrepreneurial career is not suitable for everyone, and employees with ECIs should not ignore their activated FOF. An overly negative experience from a role model's failure will increase the likelihood of employees' withdrawal from entrepreneurial action. Individuals who are not fully convinced and have low ECIs are unlikely to survive and persist, given their inability to deal with risks and uncertainty (Cardon & Kirk, 2015; Kiani et al., 2023). Therefore, before initiating an entrepreneurial career, individuals should better evaluate entrepreneurial ideas and the lessons learned from the role models. Educational institutions should arrange practical activities in which students can assess the fear and deal with uncertainty in a realistic environment to better prepare for the long-term career path (Almeida et al., 2021).

7.3. Limitations and future research directions

Our research has several limitations that present opportunities for future studies. First, our participants were students with no practical entrepreneurial experience, limiting the validity and reliability of our findings to perceptions and observations; future research should involve actual entrepreneurs and employees to better generalize the impact of positive and negative role models in SMEs. Second, while our diverse cultural backgrounds aid in generalizing results to central and southeast Asia, they restrict our use of Hofstede's dimensions and cultural variations; future studies should specifically examine cultural differences, particularly in China, to deepen our understanding of how these factors influence entrepreneurial attitudes. Our unique approach of using two random groups to gather student feedback without conditions could be expanded; future research should analyse the impact of role models in educational settings by collecting data from students before and after exposure to entrepreneurial seminars or courses, helping to determine how educational institutions can enhance students' attitudes toward entrepreneurial careers and identify the most beneficial programs for their development.

Furthermore, socio demographic factors and peer pressure intervene and can therefore distort the implications put on role models. The expansion of a more diverse sample of participants regarding cultural and socioeconomic context might provide broader data. Cultural differences make the outcome even more complex because the presence of role models can affect people differently (Manstead, 2018). Other studies that might be quite useful could be comparative studies in which cross-cultural approaches are taken to assess the effects of role models of different flavors – for instance, local and global, traditional and nontraditional. Using both qualitative and quantitative data will enrich understanding of people's interactions with their role models more (Moriano et al., 2012). Cultural and experimental tactics that put participants into contact with different role models could offer clues about shifts in career plans. Thus, examining how technology and social networking sites (SNS) help introduce and amplify the influence of role models, alongside evaluating the effectiveness of mentoring programs, could enhance our understanding of how role models shape career aspirations.

Finally, social media generates millions of instant role models. Your former classmates, neighbors, and colleagues are now content creators, online sellers, or travel vloggers, each with tens of thousands of fans following them. It would be interesting to see how these social networks (Palacios-Marqués et al., 2015) and content creators, who have taken very different routes to become millionaires, can influence individuals' ECIs.

8. Conclusion

ERMs are increasingly recognized in shaping individuals' career decision. Educational institutions around the world are gradually including successful role models, such as 'icon' entrepreneurs, in their study curriculums to inspire entrepreneurship among learners. However, the impact of role models from individuals' immediate environment, particularly negative role models, has received little attention. In general, academics have paid limited attention to studying role models (positive vs. negative) and their impact on employees' ECIs. Our experimental studies investigated the impact of positive vs. negative role models on employees' ECIs in SMEs. We found that positive role models increase employees' ECIs, while negative role models dampen enthusiasm towards an entrepreneurial career. We also concluded that FOF plays a significant role in diminishing employees' ECIs. Therefore, our study suggests the need for educational institutions to prepare students for handling uncertain and risky situations and interpreting FOF to turn it into a successful entrepreneurial career.

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CRediT authorship contribution statement

Noor ul Amin: Writing – review & editing, Writing – original draft, Visualization, Software, Methodology, Formal analysis, Data curation, Conceptualization. **Ataullah Kiani:** Writing – review & editing, Validation, Project administration. **Nisar Ahmad:** Writing – review & editing, Validation, Project administration. **Qingxiong Weng:** Writing – review & editing, Supervision, Resources, Project administration, Funding acquisition.

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Appendix A

Scenario 1: Entrepreneurial Control Condition (Positive Role Models)

Having an interest in becoming an entrepreneur, Li enrolled in an MBA program at a large public university in mainland China and graduated last year. To gain first-hand experience, Li decided to work for a company and learn from a business founder before starting his own business. Li got in touch with Wang, a former high school friend who had started his own consulting firm. Wang agreed to employ Li as a sales manager.

Before starting his own company in 2015, Wang had worked for nonprofit agencies in fundraising, marketing, public relations, and sales for a couple of years. Wang made every effort to attract customers, market the brand, and manage finances. Since there are a lot of companies that provide consulting services, Wang believed that the only way his company could survive and succeed in the cut-throat competition is through hard work, diligence, and perseverance.

Scenario 2: Entrepreneurial Failure Condition (Negative Role Models)

In entrepreneurial failure condition, we only added one more sentence in the end. “Unfortunately, despite Wang’s efforts, it becomes harder and harder to retain local customers. Wang had to close the company last week”.

Data availability

Data will be made available on request.

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