

Subjective norms towards entrepreneurship and Malaysian students' entrepreneurial intentions: does gender matter?

Does gender
matter?

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Abstract

Purpose – Adopting an institutional view of entrepreneurship, this study aims to explore the potential mediating role of entrepreneurial self-efficacy (ESE) in the relationship between subjective norms and the entrepreneurial intentions of Malaysian students. Additionally, social role theory (SRT) was used to examine whether gender acts as a boundary condition in the proposed relationship.

Design/methodology/approach – Empirical evidence was based on responses from 220 final-year students registered from a final-year entrepreneurship module at a private university in Malaysia. The hypothesised relationships were tested using Model 7 of the PROCESS macro.

Findings – The findings indicated that subjective norms had a weak but positive effect on the entrepreneurial intentions of Malaysian students. Moreover, ESE was found to mediate the relationship between subjective norms and entrepreneurial intentions. However, contrary to theoretical expectations, gender did not act as a boundary condition in the proposed mediation relationship.

Originality/value – By incorporating SRT with institutional theory, this study sought to address a knowledge gap in the existing literature by investigating and empirically exploring the moderating influence

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1. Introduction

Entrepreneurial activity is vital for economic, innovation and societal transformation, especially in emerging economies (Chan and Mustafa, 2020). Developing students' entrepreneurial intention (EI) represents a necessary means through which emerging economies can increase entrepreneurial activity. Numerous scholars have explored a variety of contextual and individual determinants of a student's EI (Donaldson, 2019). However, while entrepreneurship is largely considered a social phenomenon, little is known about how specific elements in a student's social context influence EI (Liñán and Fayolle, 2015; Schmutzler *et al.*, 2019).

Macro-social values and societal beliefs towards entrepreneurship have been found to explain some of the variations in EI (Meoli *et al.*, 2020). Specifically, subjective norms (SNs), or social support and pressures from family, friends or significant others, have been identified as critical antecedents of EI (Robledo *et al.*, 2015). Although the social desirability of entrepreneurship is likely to contribute to an increase in EI, research on the specific impact of this perception on EI remains inconsistent (Henley *et al.*, 2017). For instance, studies that have found SNs to have a positive association with EI have reported weak effects of such an association (Santos *et al.*, 2016). In contrast, others have reported no significant effects of SNs on EI. Given the empirical inconsistencies observed with respect to the SNs–EI relationship, further research is sorely needed to uncover how this relationship actually unfolds. We address this gap in the literature by drawing upon both institutional theory (North, 1990) and social cognitive theory (SCT; Bandura, 1977) and proposing that SN (a distal social contextual factor) is likely to influence EIs through raising a student's entrepreneurial self-efficacy (ESE; an entrepreneurial cognition).

In addition to the effect of the proximate social context, evidence suggests that EIs can vary significantly concerning students' genders. According to social role theory (SRT; Eagly, 1987), gender is a social construction, as it reflects the prevailing beliefs or presumptions concerning the attitudes and conduct that are deemed appropriate, desirable and acceptable for men and women within a specific cultural context. Prior research has shown females to have different perceptions of SNs, ESE and even EI than men (Nikou *et al.*, 2019). Such findings raise the possibility of gender as an important boundary condition affecting students' perceptions of whether their social contexts support an entrepreneurial career and their own entrepreneurial cognitions. However, extant research examining whether the effects of SNs on students' ESE are weaker for female students than for males is sorely lacking. Knowing such information may help our understanding of why, even when society is somewhat supportive of entrepreneurship as a career choice, females remain less likely to become entrepreneurs. Therefore, integrating SRT (Eagly, 1987) with institutional theory, this study explores whether the SNs–ESE–EI relationship is contingent upon gender. Specifically, we seek to address the following objectives:

- Q1. Does students' ESE mediate the relationship between their perception of SNs towards entrepreneurship and their EIs?
- Q2. Are the SNs towards the entrepreneurship–ESE–EI relationship contingent upon a student's gender?

We examine our proposed model by using survey data obtained from 220 final-year students from a Malaysian university. We chose Malaysia as our empirical context for two main reasons. First, Malaysia, a Southeast Asian upper-middle-income country with a population of approximately 32 million, actively advocates for entrepreneurship as a viable career path for graduates through the implementation of policies that prioritise enterprise development and entrepreneurship education and training (Looi and Maritz, 2021). Second, despite its conservative nature and attitudes towards females, Malaysia has specific policies to encourage women's entrepreneurship; female entrepreneurs are prevalent and highly visible. Broadly, our study contributes to existing research on SNs in society towards entrepreneurship, gender and EI in the emerging economy context. Specifically, our study emphasises the significance of understanding the effects of SNs and individual cognitions on students' career choices.

2. Theoretical framework and hypothesis development

2.1 Institutional theory, social role theory and entrepreneurial intentions

Entrepreneurial activity represents economic behaviour that is ingrained in the institutional environment of a society or community (Schmutzler *et al.*, 2019). Scott (2001) defined institutions as "multifaceted, durable social structures, made up of symbolic elements, social activities, and material resources" (p. 49), with the fundamental constituents of institutions being rules, norms and values. This study focuses on the normative dimension present in a student's institutional environment. Entrepreneurs, in pursuit of economic efficiency and social legitimacy, are likely to conform to and align themselves with the social norms and rules within their macro-level institutional contexts (Schmutzler *et al.*, 2019).

In an extension of institutional theory, North (1990) differentiated institutional contexts into either informal or formal institutions. Formal contexts encompass more tangible systems and codified rules, such as constitutions, laws and property rights, whereas informal contexts include codes of conduct, norms of behaviour and conventions that are created, communicated and enforced outside of legally sanctioned channels (Scott, 2001). Accordingly, SNs present an informal social context. Broadly, SNs refer to perceived societal forces that influence individuals to conform to or deviate from specified behaviours (Ajzen, 1991). Put more simply, SNs are an individual's perception of other people's opinions about the proposed behaviour. Prior research on the link between SNs and EIs remains mixed (Meoli *et al.*, 2020; Robledo *et al.*, 2015). In light of these inconsistencies, we can hypothesise that the relationship between SNs and EIs remains complex; therefore, we emphasise the importance of investigating the possible sequential process through which this may transpire.

Entrepreneurship research has acknowledged that social cognitions regarding career choice in general (Lent *et al.*, 2000) and EIs may be shaped by elements in one's social context. Drawing on SCT (Bandura, 1977), we hypothesise that SNs may help activate students' cognitive processes, ultimately enhancing their intentions to pursue a career as entrepreneurs. Specifically, we adhere to Bandura's (1977) approach in that self-efficacy should be localised to a particular context and activity domain and use the concept of ESE, which pertains to an individual's belief in their capability to effectively initiate a business endeavour (Zhao *et al.*, 2005), in contrast to the more general conceptions of self-efficacy.

Individuals' responses to and evaluations of environmental cues, which are subject to individual interpretation, may also determine the degree to which one's context influences one's EI according to an institutional perspective on entrepreneurship (Schmutzler *et al.*, 2019). Gender is a particularly important individual-level factor that can shape one's view of SNs and ESE (Santos *et al.*, 2016). According to SRT (Eagly, 1987), men and women assume

distinct social roles, leading to occupations that are stereotyped as either predominantly feminine or masculine. In such socially conditioned perceptions, entrepreneurship has historically been portrayed as a masculine profession associated with stereotypically male attributes such as competitiveness, aggressiveness and risk-taking (Mustafa *et al.*, 2024). These societal perceptions may result in women perceiving a deficiency in the requisite expertise and competencies to pursue entrepreneurship (Arshad *et al.*, 2016; Nikou *et al.*, 2019). Therefore, by integrating institutional theory with SRT, we propose that the mediating properties of ESE on the relationship between social norms towards entrepreneurship and EI will be contingent on a student's gender. We present our conceptual model below (see Figure 1).

2.2 Hypothesis development

2.2.1 *Subjective norms and entrepreneurial intentions.* Entrepreneurship scholars have long acknowledged the significance of one's institutional environment (Schmutzler *et al.*, 2019) in shaping one's perceptions of self-employment. Society's normative support for entrepreneurship, specifically, has been identified as a critical component within an individual's informal institutional environment. This support can either encourage or discourage aspiring entrepreneurs from persisting in their endeavours to secure social approval (Kazumi and Kawai, 2017). SNs refer to the "perceived normative beliefs about significant others, such as family, relatives, friends, as well as other important individuals and groups of individuals" (Schlaegel and Koenig, 2014, p. 293). Scholars have identified three critical dimensions of SNs: normative beliefs, normative beliefs compliance and social valuation (Robledo *et al.*, 2015). Normative beliefs are one's perceptions of whether a reference group would approve of a particular behaviour, while normative belief compliance refers to one's willingness and motivation to conform to and behave following the expectations of others. Finally, social valuations refer to the manner in which individuals perceive the societal value of a particular activity based on macro-social values and beliefs. Multiple studies have demonstrated that SNs either legitimise or delegitimise entrepreneurship as a career choice (Newman *et al.*, 2019).

Perceived social pressures to perform a particular behaviour or not can shape one's intentions to start a new enterprise in several ways (Santos and Liguori, 2019). First, peers and significant others with favourable views towards entrepreneurship are more likely to persuade and support students to pursue entrepreneurship (Abbasiachavari and Moritz, 2021). Second, by capturing societal norms and values as to how society values

Conceptual Model

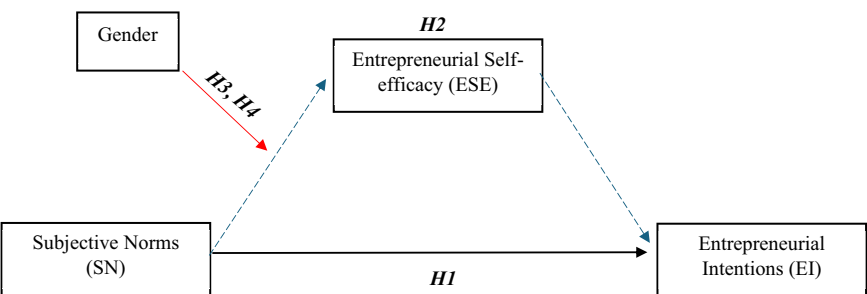


Figure 1.
Conceptual model

Source: Figure by authors

entrepreneurship, SNs can influence whether students develop constructive attitudes towards new venture creation (Kazumi and Kawai, 2017).

Finally, SNs can affect students' perceptions of behavioural control, raising their belief that they can perform entrepreneurship satisfactorily (Ahmad *et al.*, 2019). Therefore, students who perceive that SNs in their society underscore entrepreneurship as a worthy career are more likely to develop stronger EIs. This is consistent with earlier findings showing a positive relationship between SNs and EIs (Maheshwari *et al.*, 2022). Therefore, we propose the following hypothesis:

- H1. Positive perceptions of subjective norms are likely to increase students' entrepreneurial intentions (EI).

2.2.2 Mediating role of entrepreneurial self-efficacy. According to Bandura's (1977) social learning theory, self-efficacy refers to an individual's belief in their capacity to perform a set of tasks or activities successfully. Self-efficacy is closely related to the intentional actions of individuals, as it influences how one perceives a situation and responds to it (Newman *et al.*, 2019). Individuals have a tendency to avoid activities in which they perceive a lack of self-efficacy, while they exhibit greater interest and achieve higher levels of performance in activities that they perceive as possessing higher self-efficacy. Zhao *et al.* (2005) proposed a domain-specific definition of self-efficacy: ESE, which encompasses an individual's conviction in their capacity to effectively execute the diverse responsibilities and tasks associated with entrepreneurship, including the generation of novel concepts, products or services or the establishment of a new enterprise. ESE has been found to be a reliable predictor of EI (Newman *et al.*, 2019).

SCT (Bandura, 1977) posits that ESE is predominantly influenced by four sources: personal mastery, vicarious learning, social persuasion and psychological state. With respect to social persuasion, culture and SNs can act as powerful sources of persuasion and stimuli in shaping an individual's attitude towards entrepreneurship and belief in their entrepreneurial capabilities (Nikou *et al.*, 2019).

Referents' attitudes towards entrepreneurship can be observed not only in their perceived endorsement or disapproval of EI but also in their readiness to provide access to the essential resources, knowledge and capital necessary to establish new ventures (Santos and Liguori, 2019). Positive SNs from relevant others can proactively facilitate access to different resources for an individual. Moreover, students who perceive that they have access to such resources from referent others may possess greater self-assurance in their capacity to start a new venture (Neneh, 2022). Such notions are consistent with Luthan's (2015) finding that an individual's self-efficacy can be strengthened when significant and respected others affirm their capability and offer constructive feedback regarding their advancement in a specific task.

The higher the students' ESE, the more likely they are to be confident in their capabilities to succeed and are expected to achieve more positive outcomes than those with lower ESE (Newman *et al.*, 2019). In particular, positive perceptions of SNs will likely raise students' ESE (Renko *et al.*, 2021). In turn, students with higher ESE are more likely to believe that they have the resources and abilities necessary to start a new venture, positively affecting their intentions to achieve this goal. Our argument is consistent with recent studies finding a positive association between ESE and EI (Neneh, 2022; Renko *et al.*, 2021). Therefore, we hypothesise the following:

- H2. Entrepreneurial self-efficacy (ESE) mediates the relationship between subjective norms and students' entrepreneurial intentions (EI).

2.2.3 Moderating role of gender. The association of entrepreneurial activity with masculine characteristics, according to SRT (Eagly, 1987), is likely to lead members of society (including these people of reference) to believe that males are more likely to be entrepreneurs because they are more likely to possess the necessary skills and capabilities to achieve success in this field. Therefore, unlike females, males are more likely to gain greater approval from referent people towards an entrepreneurial career (Mustafa *et al.*, 2024). Additionally, research has shown that men and women often perceive their ESE differently (Arshad *et al.*, 2016). Taken together, such evidence suggests that the relationship between SNs and ESE may be highly contingent on one's gender.

A large body of evidence has suggested that peers, family and society are likely to pressure females to avoid entrepreneurial activities, as it is often viewed as a masculinised occupation rooted primarily in masculine discourse (Mustafa *et al.*, 2024). Females may interpret such norms in society, with entrepreneurship being associated with masculine traits (Olakitan *et al.*, 2021) and thus feel that society is less supportive of them becoming entrepreneurs. Furthermore, research has shown that entrepreneurial characteristics, such as risk-taking, aggressiveness, dominance, challenge and independence, are often associated more with males than females (Arshad *et al.*, 2016). As such, females may feel that they do not adequately possess such entrepreneurial skills and abilities (Nikou *et al.*, 2019), leading them to perceive a lower ESE (Nowiński *et al.*, 2019). In sum, we propose that while SNs towards entrepreneurship in society are likely to influence ESE, this relationship will be weaker for women than men. This is because women are more likely to perceive SNs in society normalising entrepreneurship as a male-dominated career; thus, they may perceive themselves as less likely to have the necessary skills and capabilities to succeed as entrepreneurs (Karim *et al.*, 2023). Therefore, we hypothesise the following:

- H3.* Gender moderates the relationship between subjective norms and entrepreneurial self-efficacy (ESE), such that the relationship is weaker for women than for men.

Additionally, combining *H2* and *H3*, we propose the following hypothesis:

- H4.* Gender moderates the indirect effects of subjective norms on entrepreneurial intentions (EI) through entrepreneurial self-efficacy (ESE), such that the relationship is weaker for females than for males.

3. Methodology

3.1 Sample and procedure

We collected data from students completing a final-year entrepreneurial module at a private university in Malaysia between January and May 2023. The module in question provides students with knowledge about entrepreneurship and allows them to develop their entrepreneurial skills and cognition through an experiential learning component. We focused on final-year students because they are close to deciding whether to enter paid employment or start their entrepreneurial venture. Questionnaires were electronically disseminated to all students enrolled in the final-year entrepreneurial module, and 289 sets were received. After screening out questionnaire data sets that were flagged as potentially invalid, 220 complete responses were left for analysis (see Table 1).

3.2 Measurement model

A confirmatory factor analysis (Hu and Bentler, 1999) revealed an adequate fit of the measurement model (comparative fit index = 0.939; Tucker–Lewis index = 0.930;

Gender							Does gender matter?
Female, <i>n</i> = 121		Male, <i>n</i> = 99		Total, <i>N</i> = 220			
Aspects	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
<i>Field of study</i>							201
Arts/social sciences	12	9.917	13	13.131	25	11.364	
Business/management/marketing/economics/finance	70	57.851	57	57.576	127	57.727	
Engineering/IT	6	4.959	16	16.162	22	10.000	
Physical science	4	3.306	2	2.020	6	2.727	
Others	29	23.967	11	11.111	40	18.182	
<i>Mandatory involvement in entrepreneurship capstone module</i>							
No	43	35.537	32	32.323	75	34.091	
Yes	78	64.463	66	66.667	144	65.455	
<i>Parents as entrepreneurs</i>							
No	58	47.934	45	45.455	103	46.818	
Yes	63	52.066	54	54.545	117	53.182	
	M	SD	M	SD	M	SD	
Age	23.883	6.092	23.586	4.886	23.749	5.569	
Notes: M = mean; SD = standard deviation							Table 1. Participants' details, <i>N</i> = 220
Source: Table by authors							

Notes: M = mean; SD = standard deviation

Source: Table by authors

standardized root mean square residual = 0.055; root mean square error of approximation = 0.061), with the standardised factor loading of items ranging from 0.459 to 0.994. The average variance extracted (AVE) of each variable except EI was at least 0.50, and the $\sqrt{\text{AVE}}$ was larger than the correlation between the variables; hence, convergent and discriminant validities were established. Composite reliabilities for all variables surpassed the threshold values of 0.60 (Bagozzi and Yi, 1988) and 0.70 for assessing Cronbach's alpha. EI was included in our analysis despite its lower AVE (Table 2), as its reliability and discriminant validity scores exceeded the threshold (Fornell and Larcker, 1981).

3.2.1 Measures. Students' EIs were measured using six items from Thompson (2009) using a six-point Likert scale (1 = very untrue to 6 = very true). Students' ESE was measured with four items from Zhao *et al.* (2005) using a five-point Likert scale (1 = not at all to 5 = completely confident). Perceived SN was measured using six items from Kolvereid and Isaksen (2006). The students were asked along a seven-point scale if (a) "my closest

Variable	α	CR	AVE	1	2	3	4
1 Entrepreneurial intention	0.812	0.816	0.434	(0.658)			
2 Entrepreneurial self-efficacy	0.893	0.894	0.680	0.564***	(0.824)		
3 Subjective norms	0.852	0.855	0.668	0.410***	0.377***	(0.818)	
4 Perceived educational support	0.879	0.880	0.545	−0.022	−0.012	0.054	(0.739)
Mean				3.654	3.141	2.607	5.006
Standard deviation				1.182	1.017	4.522	1.175

Notes: α = Cronbach's alpha; AVE = average variances extracted; CR = composite reliability; ***correlation is significant at 0.001 (two-tailed); numbers within parentheses are the square roots of the AVEs

Source: Table by authors

Table 2.
Reliabilities, average
variances extracted
and correlations
between variables

family”, (b) “my closest friends” and (c) “people who are important to me” think that they should not (= 1) or should (= 7) pursue an entrepreneurial career. In assessing motivation to comply, the students were asked how much they cared about the abovementioned person’s opinion (1 = not at all to 7 = very much). An overall measure of SNs was obtained by recoding belief items into a bipolar scale (1 = −3 to 7 = + 3) and multiplying them by the respective motivation to comply with the item, and the scores were averaged.

We controlled whether students had family members who run their own businesses (1 = Yes, 0 = No) and students’ perceptions of whether their institutions provide educational support for entrepreneurship using six items from Saeed *et al.’s* (2015) perceived university support for entrepreneurship scale. All items were measured on a seven-point Likert scale (1 = strongly disagree to 7 = strongly agree).

3.3 Data analysis

Analytical procedures were performed using Rstudio software (version 2022.02.1). Before analysis, we detected outliers using boxplots and replaced them with computed values from the K-nearest neighbour method. We applied z-tests to assess data normality using skewness and kurtosis. Data normality was established by the fact that all absolute z-scores were below 3.29 (Kim, 2013). Pearson’s correlational analysis was used to investigate the relationships among the variables (Table 2). Model 7 of PROCESS macro was used to test our moderated-mediation model with a bootstrapped sample = 5,000 and a 95% confidence interval (Table 3). Multicollinearity issues were absent, as indicated by the variance inflation factor values of the predictors and control variables, which ranged from 1.026 to 1.199 and were all below 5 (James *et al.*, 2021).

4. Results

4.1 Moderated mediation analysis

Both H1 and H2 were accepted, as student’s SNs strengthened their EIs ($\beta = 0.061$, SE = 0.015, $t = 3.935$, $p < 0.001$) directly and partially through their ESE (SN > ESE: $\beta = 0.084$, SE = 0.016, $t = 5.267$, $p < 0.001$; ESE > EI: $\beta = 0.550$, SE = 0.069, $t = 7.999$, $p < 0.001$). However, gender did not moderate the effect of SNs on ESE ($\beta = -0.002$, SE = 0.036, $t = -0.050$, $p = 0.960$), leading

	β	SE	LLCI	ULCI	t -value	p -value	Hypothesis
<i>Mediator variable model</i>							
SN > ESE	0.084	0.016	0.053	0.116	5.267	0.000	–
Gender > ESE	0.009	0.152	−0.290	0.308	0.062	0.951	–
SN × Gender > ESE	−0.002	0.036	−0.073	0.070	−0.050	0.960	H3: Not supported
<i>Dependent variable model</i>							
SN > EI	0.061	0.015	0.030	0.091	3.935	0.000	H1: Supported
ESE > EI	0.550	0.069	0.414	0.685	7.999	0.000	H2: Supported
<i>Conditional indirect effect of SN on EI through ESE in female and male groups, respectively</i>							
Female	0.046	0.011	0.027	0.070	4.296	0.000	–
Male	0.045	0.021	0.007	0.091	2.162	0.032	–
Index of moderated mediation	−0.001	0.022	−0.044	0.044	0.046	0.963	H4: Not supported

Table 3.
Moderated-mediation
model results

Notes: β = unstandardized coefficient; SE = standard error; LL/ULCI = lower/upper limit of 95% confidence interval; EI = entrepreneurial intention; ESE = entrepreneurial self-efficacy; SN = subjective norm; PES = perceived educational support
Source: Table by authors

to a non-significant moderated-mediation index = -0.001 ($SE = 0.022$, $t = 0.046$, $p = 0.963$). Therefore, $H3$ and $H4$ are not supported. Additionally, the significant mediating effect of ESE on the SNs–EI pathway was similar for both genders (Female: $\beta = 0.046$, $SE = 0.011$, $t = 4.296$, $p < 0.001$; Male: $\beta = 0.045$, $SE = 0.021$, $t = 2.162$, $p = 0.032$).

5. Discussion, practical implications and agenda for future research

5.1 Discussion and theoretical implications

Responding to Liñán and Fayolle's (2015) call for deeper exploration into the influence of social context in influencing one's EI, this study explored how SNs influence students' EIs and whether the mechanism behind the proposed relationship varies between male and female students. Our study makes three significant contributions to the existing literature. First, our findings add to the empirical evidence concerning SNs' direct and indirect effects on EIs (Santos *et al.*, 2016). In doing so, we continue to add to the debate regarding the role and significance of SNs in influencing students' entrepreneurial career decisions. Consistent with earlier studies, our findings demonstrate a positive direct yet weak effect of SNs on EI (Robledo *et al.*, 2015; Santos *et al.*, 2016). Such a finding further demonstrates the need to further explore the mechanisms through which SNs influence EI.

Second, our study contributes to the extant literature by drawing on both institutional theory (North, 1990) and SCT to examine the mediating influence of ESE on students' EIs. Specifically, our findings show that ESE partially mediates the relationship between SNs and EI. When students experience positive subject norms towards entrepreneurship by referent others in their immediate social contexts, they are likely to have greater ESE, which in turn influences their EIs. Our finding provides further empirical evidence of the mediating role of ESE in the SNs–EI relationship and reinforces the significance of domain-specific self-efficacy over general self-efficacy for EI (Newman *et al.*, 2019). Additionally, adopting an institutional theory perspective of entrepreneurship in examining the mechanisms underlying the relationship between SNs and EI, our study also responds to calls by scholars to take into greater account the role of one's context, values and norms in shaping EI (Kazumi and Kawai, 2017) and also provides an alternative explanation of this process that extends beyond traditional approaches, such as the theory of planned behaviour.

Finally, our study further illuminates the conditions under which SNs influence EI. More specifically, we add to the existing literature on the role of gender in shaping perceptions of social contexts, either supportive or unsupportive of entrepreneurship and entrepreneurship cognitions (Mustafa *et al.*, 2023a, 2023b). Drawing on SRT, we propose that the strength of the relationship between SNs and ESE would be weaker for female students than for male students. Contrary to our theoretical expectations, gender did not moderate the SNs–ESE relationship, nor was the mediating effect of ESE in the SNs–EI relationship conditional on a student's gender.

Two possible explanations account for our findings. First, our findings can be attributed in part to the Malaysian Government's role in fostering entrepreneurship. As noted in the introduction of the paper, on a national policy level, Malaysia has significantly invested in programs that try to encourage women's entrepreneurship – such efforts may have positively affected society's attitudes towards entrepreneurs and the notion of women's equality in general (Franzke *et al.*, 2022). In such instances, male and female students are likely to perceive that norms towards entrepreneurship in Malaysia are not based on gendered perceptions, thus generating greater belief and confidence in their abilities to carry out entrepreneurship-related tasks.

A second possible explanation lies in the observable growth of female entrepreneurial role models in Malaysian society (Mustafa *et al.*, 2024). According to social learning theory (Bandura, 1977), one way that individuals learn is by observing the behaviours of others. Although only one in five companies is owned by women [Department of Statistics

Malaysia (DOSM, 2022], the informal non-agricultural sector, which includes informal home businesses and market/street stalls, has a higher female participation rate (44.7%) (DOSM, 2022). The growing presence of female formal and informal entrepreneurs in Malaysia and on social media has facilitated females in developing more favourable perceptions of entrepreneurship and the belief that female entrepreneurs are part and parcel of Malaysian society. Females are now able to see entrepreneurship as a viable career choice for themselves and one that empowers them.

5.2 *Practical implications and directions for future research*

The gender gap in entrepreneurship has serious implications for both researchers and policymakers alike. It is documented in the literature that worldwide, per capita gross domestic product levels are “significantly associated with the gender gap in entrepreneurial behaviour but that subjection perceptions also play a role [...]”, but in contrast, “individual demographic and economic conditions are found to be of relatively little importance” (Minniti, 2010, p. 294). This study highlighted an exciting gender dimension by showing the inconsequence of gender in the determination of EI and ESE and as a boundary condition in the mediation relationship between SNs and EI through ESE. Our findings have profound implications for shaping future policies and practices.

There have been many documented situations across the developing world that evidenced gender-specific barriers to entry to entrepreneurship, such as exploitation, access to technology and a lack of managerial training (Franzke *et al.*, 2022). Concerning policymakers, this study provides some evidence to merit studying whether programs targeted at women entrepreneurs more effectively enhance EI and business creation than generalised entrepreneurship programs.

Accordingly, we recommend that policymakers take a holistic approach to entrepreneurship in their countries, elevating the stature and appreciation of entrepreneurs across the nation beyond the confines of higher education. In fact, our evidence shows that changing norms towards entrepreneurship at the national level, rather than specifically targeting female programmes, can raise EIs for all. Developing nations with limited resources would find this information helpful in policy planning to advance the entrepreneurial landscape in their countries; hence, this could be a future direction for upcoming research projects (Mustafa *et al.*, 2023a, 2023b).

Following the previous section’s discussion on the nonsignificant gender effect, the gender gap in entrepreneurial spirit appeared to have improved. Nevertheless, the disparity between high informal engagement rates and low formal engagement rates still exists. Although Malaysians may have a receptive entrepreneurial culture, perceptions of gender-appropriate entrepreneurial activities vary. According to a recent study, rural female youth may show a preference for formal employment and a side business over full-time entrepreneurial engagements (Nungsari *et al.*, 2023). This, in conjunction with the absence of targeted policies for grassroots women entrepreneurs (Ariffin *et al.*, 2020), could potentially account for the disparity between formal and informal entrepreneurial endeavours among women. However, definitive answers will not be available until future research on the barriers to legitimising informal businesses in the emerging economy context fills the knowledge gap.

Specifically, we would like to provide three specific suggestions for educators and policymakers based on the study’s findings. First, the significance of enhancing ESE within educational paradigms cannot be overstated. This enhancement can be achieved by deliberately integrating curricular and extracurricular activities designed to immerse students in real-world entrepreneurial experiences. By facilitating direct engagement with entrepreneurial projects and obtaining mentorship opportunities from seasoned entrepreneurs, students can develop a robust

sense of self-efficacy in their entrepreneurial capabilities. Such initiatives not only bolster students' confidence in their entrepreneurial skills but also prepare them for the challenges of the entrepreneurial journey, thereby fostering a proactive and resilient entrepreneurial mindset.

Second, in addressing the imperative to cultivate positive SNs towards entrepreneurship, policymakers and educators need to collaborate in promoting an environment that values entrepreneurial endeavours. This entails the implementation of targeted campaigns and educational programs that highlight the societal benefits of entrepreneurship and present a diverse array of successful entrepreneurial role models (Ahmed *et al.*, 2024). By reinforcing positive societal attitudes and providing supportive networks, students are more likely to perceive entrepreneurship as a viable and esteemed career path, which in turn can significantly influence their EIs and aspirations.

Third, the adoption of gender-neutral policies in the promotion of entrepreneurship is a critical consideration. Given that the study found no significant moderating effect of gender on the relationship between SNs, ESE and EI, it is imperative that educational programs and policies are designed to be inclusive and accessible to all students. This approach should be aimed at eradicating any existing gender biases and ensuring that all individuals, regardless of gender, are equally encouraged and supported in their entrepreneurial pursuits. These policies can contribute to a more inclusive and equitable entrepreneurial ecosystem by addressing and removing barriers that may disproportionately affect certain groups.

As with any study, our study is not without its limitations. First, this study is limited by its design, which was cross-sectional in nature. Future studies may adopt longitudinal designs to explore how SNs and ESE, in particular, evolve over time. Specifically, future research may investigate whether women at different age intervals have differing perceptions of SNs and their ESE. Second, the generalisability of our study's findings may be further limited by the sampled population: students from a single private university in Malaysia. Malaysia, contrary to expectations, is a diverse country, and significant differences in societal attitudes towards gender and entrepreneurship exist (Nungsari *et al.*, 2023). Thus, future research may attempt to replicate this finding using a sample of Malaysian students from various regions or students from other emerging economies. Finally, this study focused only on the elements in students' immediate social contexts that may influence their ESE and EIs. However, scholars have pointed out that individuals are simultaneously embedded in several layers of context (Mustafa *et al.*, 2023a, 2023b). Hence, future studies may wish to examine the effects of multiple contexts, such as the university, social, economic and political environments on students' EI formation to obtain a more holistic picture of the impact of context.

6. Conclusion

This study draws on institutional theory (North, 1990) and SRT (Eagly, 1987) to explore whether ESE mediates the relationship between the SNs and the EI of Malaysian students. It also examines whether gender acts as a boundary condition in the proposed relationship. Based on data from 220 final-year students registered in a final-year entrepreneurship module, we found that SNs had a weak positive effect on the EIs of Malaysian students. Moreover, ESE mediated the relationship between SNs and EI. However, contrary to theoretical expectations, gender did not act as a boundary condition in the proposed mediation relationship.

This study addresses a knowledge gap in the existing literature by investigating the moderating role of gender in the nexus among SNs, ESE and EI. The study also adds to the literature by further empirically validating how SNs can influence EI by increasing students' ESE. Additionally, we provide more evidence for the need to study societal gender-specific norms and how they influence attitudes and perceptions towards entrepreneurship.

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