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Enhancing Social Entrepreneurial Intentions through Entrepreneurial Creativity: A Comparative Study Between Taiwan and Hong Kong

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Attention toward social entrepreneurship has increased worldwide, particularly within younger generations. Based on the identified model of social entrepreneurial intentions, this study proposed a multiple mediation framework to examine the mediating role of entrepreneurial creativity for university students. It also compared the differences between Taiwanese ($N = 311$) and Hong Kong students ($N = 311$). Through a survey using both online and offline channels, the results of Study 1 confirmed the factor structures of the 3 scales, involving 5 antecedents of social entrepreneurial intention (i.e., empathy, moral obligation, self-efficacy, perceived social support, and prior experience with social problems), 2 factors of entrepreneurial creativity (i.e., originality and usefulness), and 2 factors of social entrepreneurial intention (i.e. conviction and preparation). The results of Study 2 supported the proposed multiple mediation model across regions. Prior experience with social problems, perceived social support, and originality were identified as the 3 most influential factors affecting the social entrepreneurial intentions of university students. The major differences between Taiwan and Hong Kong involved prior experience, empathy, self-efficacy, perceived social support, and usefulness.

The social entrepreneurship (SE) movement is growing worldwide. SE designates organizations with the purpose of connecting social mission and entrepreneurial action. Thus, SE is aimed at resolving social problems through the activities of social entrepreneurs financed through business actions in the market. Because of its dual-targeted characteristics, SE often creates nonprofit sector jobs, fosters

workforce development, and helps people to generate supplemental income (Hogg, Hibbert, & Quinn, 2005; Ruvio & Shoham, 2010; Tracey & Phillips, 2007). Although SE is common in Europe and the United States, it is relatively new to Asia. In addition to the lack of governmental support and common understanding, minimal support from academia has hampered the progress of SE development. Without systematically analyzing the start-up of SE, potential supporters will not invest in SE development because they lack knowledge regarding the sustainable operation of SE (Liang, Chang, Liang, & Liu, 2017; Liu, Ip, & Liang, 2018).

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Research on intention formation is often an initial and critical step toward a comprehensive realization of entrepreneurship. Mair and Noboa (2006) adopted Ajzen's (1991) theory of planned behaviour (TPB) and proposed empathy, moral judgement, self-efficacy, and perceived social support as the antecedents of social entrepreneurial intention (SEI). Mair and Noboa defined empathy as the ability to intellectually recognise and emotionally share the feelings of others. Empathy has been lengthily studied in the context of helping behaviour (Borman, Penner, Allen, & Motowidlo, 2001; Oswald, 1996) and identified as an innate predictor of SEI (Dees, 2012; London, 2010; Miller, Grimes, McMullen, & Vogus, 2012). Moral judgement refers to the cognitive process that motivates an individual to help others in search of a common good (Mair & Noboa, 2006). Numerous studies have recognized adherence to moral standards as essential attributes of social entrepreneurs (Chell, Spence, Perrini & Harris, 2016; Hemingway, 2005; Nga & Shamuganathan, 2010). *Self-efficacy* refers to a psychological state wherein one possesses self-confidence to succeed in specific situations or accomplish a task (Bandura, 2000; Mueller & Dato-On, 2008). High levels of self-efficacy allow individuals to perceive creating social ventures as feasible actions, which can positively affect the formation of the corresponding intention (Mair & Noboa, 2006; Piperopoulos & Dimov, 2015). Finally, perceived social support refers to the trust and cooperation derived from social networks (Backman & Smith, 2000). Scholars have suggested that social entrepreneurs should build collaborative relationships with diverse stakeholders for achieving social innovation (Chan, 2016; Estrin, Mickiewicz, & Stephan, 2013).

Mair and Noboa's (2006) model has been verified empirically by several studies (Forster & Grichnik, 2013; Moorthy & Annamalah, 2014; Tukamushaba, Orobias, & George, 2011). Recently, Hockerts (2017) suggested that moral judgement should be replaced by moral obligation because moral obligation is a belief in between the act of moral judgement and the formation of moral intent. Hockerts also proposed that prior experience with social problems should be included as an antecedent of SEI and successfully verified this claim through three independent samples. Prior experience is included because familiarity with such problems can be a trigger for intention formation, which has been supported by previous studies (Carr & Sequeira, 2007; Miralles, Giones, & Riverola, 2016). However, this newly emerging model has not yet been fully tested in Asia.

In addition, social entrepreneurs exhibit statistically higher levels of creativity and risk-taking than do traditional entrepreneurs (Smith, Bell, & Watts, 2014), but few studies have been conducted on the relationship between entrepreneurial creativity and SEI antecedents. Although business school leaders have identified SE as one of the most in-demand areas of business research (Bridgestock, 2013), academic dedication to SEI is currently insufficient, particularly in highly urbanized areas such as Taiwan and Hong Kong, where sustainable economic development is especially crucial. To address the

remaining research gap, this study proposed a multiple mediation model to explicate the mediating role of entrepreneurial creativity in the relationship between the identified antecedents and the SEI of university students, in addition to comparing the differences between Taiwan and Hong Kong.

HYPOTHESSS

Constructs of Entrepreneurial Creativity

Creativity is a crucial motivator of entrepreneurial intention (Olufunso, 2010), and creative people exhibit high levels of entrepreneurial desirability (Zampetakis, 2008). In particular, social entrepreneurs strive to develop creative mechanisms for circumventing environmental barriers (Dacin, Dacin, & Matear, 2010; Shaw & Carter, 2007). According to Amabile (1997) and Puhakka (2012), entrepreneurial creativity refers to the business capacity to discover and exploit business opportunities for generating and implementing creative ideas, which help establish new ventures or revive existing organizations. Entrepreneurial creativity can be assessed on two dimensions, namely originality and usefulness (Runco & Jaeger, 2012). Entrepreneurial creativity has been found to have a profound impact on SEI, particularly in terms of entrepreneurial originality (Ip, Wu, Liu, & Liang, 2017; Liu et al., 2018).

Regarding the influences of entrepreneurial creativity on the antecedents of SEI, the positive association between empathy and creativity has been extensively discussed in various disciplines (Carlozzi, Bull, Eells, & Hurlburt, 1995; So & Joo, 2017; Yaniv, 2012). In the business world, empathy inspires entrepreneurs to take the needs of customers and coworkers into account, to see things from their perspectives, and to look for new possibilities to create social innovation (Grant & Berry, 2011). In addition, moral obligation may slow entrepreneurs down with unduly detailed calculations and thus become risk averse at the expense of creativity (Osti, 2012). In a regression of ethical decision-making on creative thinking, scholars found that both information gathering and concept selection are negatively associated with study conduct; both problem definition and implementation planning are negatively associated with most ethical strategies (Mumford et al., 2010).

Numerous studies have indicated that self-efficacy influences workplace creativity, which is a key driver of organizational innovation and success (Rego, Sousa, Marques, & Cunha, 2012; Zhou & Hoever, 2014). Konakll (2015) further determined the critical role of self-efficacy to predict personal creativity and risk-taking characteristics of SE. Furthermore, previous studies have suggested that social support leads toward creative performance of university students (Al-Srouf & Al-Oweidi, 2013; Yousaf & Ghayas, 2015). Recent business research has also indicated that ideational productivity occurs when trusted partners

exchange ideas and bestow support (Gemmell, Boland, & Kolb, 2012; Richter, Hirst, Van Knippenberg, & Baer, 2012). Finally, prior experience in a given task domain has been identified as a crucial predictor of creative performance (Amabile, 1997; Chua & Iyengar, 2008; Miralles et al., 2016) because it could help people avoid unnecessary try-outs and lead them to possible resolutions. However, some studies suggested that prior experience may not always be beneficial to market alertness and business creation (Liang, Liang, & Liu, 2017).

This study extended Mair and Noboa's (2006) model through the inclusion of entrepreneurial creativity as a predictor of SEI and as a mediator between SEI and its antecedents. Based on the aforementioned literature reviewed, five hypotheses were proposed:

H1. Empathy positively affects SEI through entrepreneurial creativity.

H2. Moral obligation negatively affects SEI through the mediation of entrepreneurial creativity.

H3. Self-efficacy positively affects SEI through the mediation of entrepreneurial creativity.

H4. Perceived social support positively affects SEI through the mediation of entrepreneurial creativity.

H5. Prior experience positively affects SEI through the mediation of empathy, moral obligation, self-efficacy, perceived social support, and entrepreneurial creativity.

STUDY 1: CONFIRMATORY FACTOR ANALYSIS

Method

Participants

Three-hundred and five university students were recruited for Study 1, and they served as a validation sample to confirm the factor structures of three scales through a confirmatory factor analysis (CFA). Of these participants, 262 (135 from Taiwan and 127 from Hong Kong) completed all parts of the survey (Table 1). The surveys were administered by graduate

assistants who were accompanied by their class instructor. Participation was voluntary, confidential, and anonymous.

Measure

This study adopted Hockerts' (2017) model; from this model, 15 items about the antecedents of SEI were adopted. Another 12 items used by Chia and Liang (2016) to measure entrepreneurial creativity, which were developed based on research by Amabile (1997) and Puhakka (2012), were revised and included in this study. Finally, a total of eight items assessing entrepreneurial intention were collected from the study of Wang, Chang, Yao, and Liang (2016) and revised to gather information on the SE research context.

The items were measured using a 6-point Likert-type scale ranging from 1 (*strongly disagree*) to 6 (*strongly agree*). The factorial validity of the factor structures was tested using LISREL (Version 8.80) by performing CFA with the maximum likelihood estimation.

Procedures

The survey was conducted by using both online and offline channels. Students studying in Hong Kong and students who were born in Hong Kong but may not be currently studying in Hong Kong were the target respondents. The web address of the online survey was distributed by email and posted on Facebook, which provided the participants with a convenient and immediate means of response. The offline survey was performed during classes in two universities in Hong Kong.

Results

The five-factor solution of the antecedents of SEI, two-factor solution of entrepreneurial creativity, and two-factor solution of SEI yielded a good fit ($\chi^2 = 1288.65$, $df = 524$, $p < .005$, RMSEA = .074, SRMR = .066, CFI = .96, NFI = .93, NNFI = .95). The convergent validity of each factor was assessed using standardized factor loading, composite reliability, and average variance extracted (Table 2), and discriminant validity was tested by calculating the confidence intervals of interfactor correlation estimates, denoted as ϕ . The results indicated that all of the factors of the antecedents of SEI, entrepreneurial creativity, and SEI achieved both convergent validity (factor loading > 0.5)

TABLE 1
Descriptive analysis of Study 1 ($n = 262$)

	Taiwan ($n = 135$)				Hong Kong ($n = 127$)			
Gender	64 men		71 women		50 men		77 women	
Academic standings	103 undergraduates		32 postgraduates		111 undergraduates		15 postgraduates	
Age	20 or younger	21–25	26–30	31 or older	20 or younger	21–25	26–30	31 or older
	33	75	16	11	31	77	13	6

TABLE 2
The confirmatory factor analysis ($n = 262$)

Item Factor	Prior experience	Empathy	Moral obligation	Self-efficacy	Perceived social support	Originality	Usefulness	Conviction	Preparation
1	.69	.83	.85	.81	.55	.86	.66	.64	.89
2	.77	.79	.87	.90	.80	.82	.50	.78	.87
3	.78	.81	.91	.60	.86	.52	.52	.91	.86
4						.77	.86	.89	.74
5						.91	.90		
6						.89	.73		
Measurement errors	.39 ~ .52	.30 ~ .38	.18 ~ .28	.19 ~ .66	.26 ~ .70	.18 ~ .73	.18 ~ .95	.17 ~ .60	.20 ~ .45
Composite reliability	.7897	.8536	.9066	.8148	.7834	.963	.8187	.8814	.9069
Average variance extracted	.5566	.6606	.7641	.6019	.5529	.6527	.46664	.6541	.7099

and discriminant validity. Specifically, the ϕ values among all five antecedent factors, between Factors 1 and 2 of entrepreneurial creativity, and between Factors 1 and 2 of SEI ranged from 0.1828 to 0.8688, 0.8308 to 0.9092, and 0.8608 to 0.9392, respectively (all $1 > \phi > -1$).

STUDY 2: TESTING THE MEDIATION MODEL

Method

In total, 656 university students were recruited for Study 2, and they served as a model-building sample to construct the hypothesised mediation model. Of these participants, 622 completed all parts of the survey (311 from Taiwan and 311 from Hong Kong; Table 3). Similar to Study 1, participation was voluntary, confidential, and anonymous. The measurement tools and survey procedure were identical to those used in Study 1. The same online survey was reactivated 1 month after Study 1, and the survey web address was again sent through email and posted on Facebook. The participants who participated in Study 1 were instructed to not participate in Study 2. The results were delivered in aggregate and anonymous forms, and the data remained confidential but could be shared with others with researcher consent. The proposed hypotheses were tested using LISREL (Version 8.80) by performing structural equation modelling with the maximum likelihood estimation.

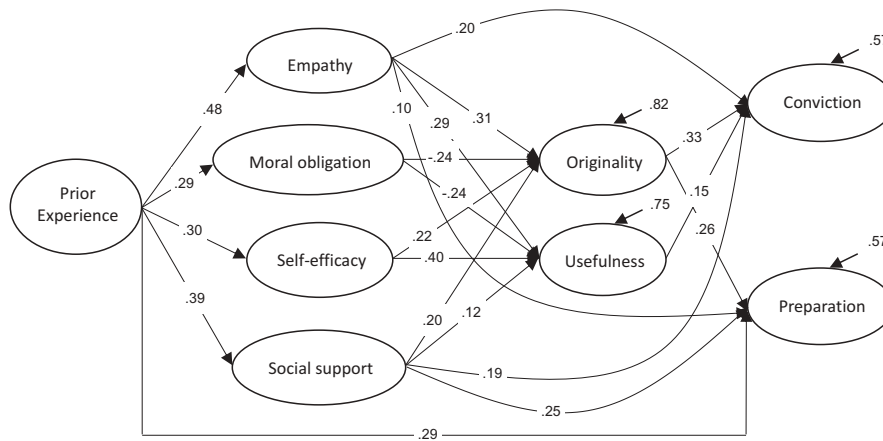
Results

The mediating effects were examined by following the four steps suggested by MacKinnon, Lockwood, Hoffman, West, and Sheets (2002). The final model of the Taiwan sample (Figure 1) showed a fit comparable to that of the initial model ($\chi^2 = 1595.81$, $df = 532$, $p < .005$, RMSEA = .078, SRMR = .072, CFI = .95, NFI = .92, NNFI = .94), and the results explained a substantial level of variance for the dimensions of conviction ($R^2 = .43$) and preparation ($R^2 = .43$). Notably, empathy, self-efficacy, perceived social support, and prior experience positively affected SEI, whereas moral obligation negatively affected SEI; hence, all hypotheses were supported. Table 4 presents the direct and indirect effects of the latent constructs.

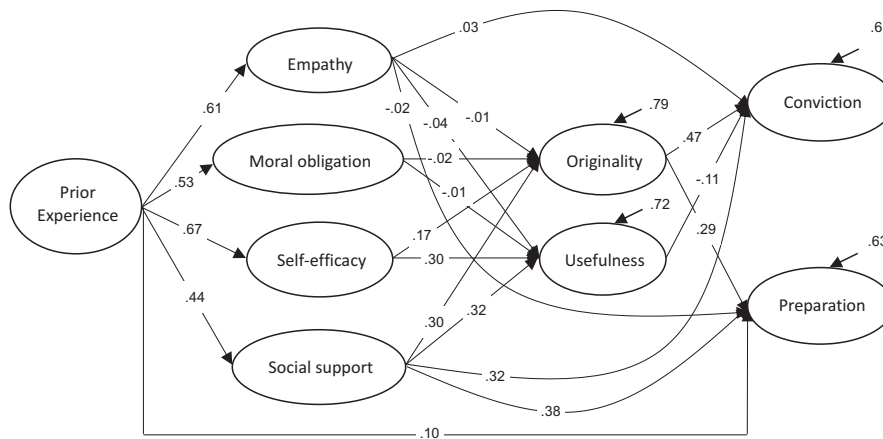
The final model of the Hong Kong sample (Figure 2) showed a fit comparable to that of the initial model ($\chi^2 = 1515.01$, $df = 532$, $p < .005$, RMSEA = .080, SRMR = .073, CFI = .96, NFI = .94, NNFI = .95), and the results explained a substantial level of variance for the dimensions of conviction ($R^2 = .35$) and preparation ($R^2 = .37$). Accordingly, self-efficacy, perceived social support, and prior experience positively affected SEI, whereas moral obligation negatively affected SEI; hence, H2, H3, H4, and H5 were supported. Notably, the effects of empathy on SEI were revealed to be negative; thus, H1 was rejected. Table 5 shows the direct and indirect effects of the latent constructs.

TABLE 3
Descriptive analysis of Study 2 ($n = 622$)

	Taiwan ($n = 311$)				Hong Kong ($n = 311$)			
Gender	144 men		167 women		121 men		190 women	
Academic standings	206 undergraduates		105 postgraduates		239 undergraduates		72 postgraduates	
Age	20 or younger	21–25	26–30	31 or older	20 or younger	21–25	26–30	31 or older
	86	169	41	15	79	193	29	10

FIGURE 1 Multiple mediation model for SEI (TW, $n = 311$).TABLE 4
Effects of latent independent and mediating variables (TW, $n = 311$)

Independent and mediating variables	Direct effect		Indirect effect		Total	
	Conviction	Preparation	Conviction	Preparation	Conviction	Preparation
1. Prior experience	-	.29	.28	.21	.28	.50
2. Empathy	.20	.10	.15	.08	.35	.18
3. Moral obligation	-	-	-.11	-.06	-.11	-.06
4. Self-efficacy	-	-	.13	.06	.13	.06
5. Perceived social support	.19	.25	.09	.06	.28	.31
6. Originality	.33	.26	-	-	.33	.26
7. Usefulness	.15	-	-	-	.15	-

FIGURE 2 Multiple mediation model for SEI (HK, $n = 311$).

DISCUSSION

The results of Study 1 confirmed the factor structures of the scales used in the subsequent studies. Specifically, it is valid

to divide the antecedents of SEI into empathy, moral obligation, self-efficacy, perceived social support, and prior experience with social problems; entrepreneurial creativity into originality and usefulness; and SEI into conviction and

TABLE 5
Effects of latent independent and mediating variables (HK, $n = 311$)

Independent and mediating variables	Direct effect		Indirect effect		Total	
	Conviction	Preparation	Conviction	Preparation	Conviction	Preparation
1. Prior experience	-	.10	.24	.23	.24	.33
2. Empathy	.03	-.02	.00	-.01	.03	-.03
3. Moral obligation	-	-	-.01	-.01	-.01	-.01
4. Self-efficacy	-	-	.04	.05	.04	.05
5. Perceived social support	.32	.38	.13	.10	.45	.48
6. Originality	.47	.29	-	-	.47	.29
7. Usefulness	-.11	-	-	-	-.11	-

preparation. Additionally, the results of Study 2 partially supported the proposed multiple mediation model. Prior experience with social problems, perceived social support, originality, empathy, and usefulness were identified as the five most influential factors to the SEIs of university students. The major differences between Taiwan and Hong Kong were the effects engendered by prior experience, empathy, self-efficacy, perceived social support, and usefulness. These effects and differences are explored in the following.

Prior Experience with Social Problems

Prior experience with social problems was found to directly affect SE preparation and to indirectly affect both SE conviction and preparation through all mediators, implying that prior experience strongly leads the action intentions of university students and that it requires certain motivators to trigger SEI formation; this finding is consistent with those of previous studies (Carr & Sequeira, 2007; Miralles et al., 2016) and verifies the findings of Hockerts (2017). This result implies that, if promoting SE is one of the central goals in modern higher education, entrepreneurial educators should appropriately design coursework and class projects, carefully plan service-learning and placement experience programs, and pay close attention to extra-curricular activities, with the objective of accumulating diverse experiences for social innovation. These educational strategies are of particular benefit to Taiwanese students in terms of intentional behaviour. Notably, although most of the indirect effects were positive, the effects of prior experience on SEI through moral obligation were negative because moral obligation negatively affected entrepreneurial creativity and continually affected SEI. This result means that the effects of prior experience with social problems on SEI could become undesirable when particular motivators (e.g., moral obligation) are considered. Taken together, depending on the details of an SE venture and entrepreneurial motives, prior experience may be a benefit or a detriment (Chua

& Iyengar, 2008; Liang et al., 2017). For Taiwanese students, direct and meaningful experiences with social organizations are vital, whereas these experiences combined with other interventions for enhancing student self-efficacy, perceived social support, and entrepreneurial creativity are advantageous for Hong Kong students.

Empathy

Empathy directed toward a particular societal problem can be transferred toward individuals belonging to a specific target population. This is especially true for social entrepreneurs, who often need to place themselves in the same disadvantageous situations faced by involved inhabitants. Empathy was found to directly and indirectly affect SEI through entrepreneurial creativity, particularly for conviction, implying that this trait greatly facilitates the intentional belief of university students; this finding agrees with those of prior research (Dees, 2012; Grant & Berry, 2011; London, 2010; Miller et al., 2012) and lends additional support to Hockerts' (2017) findings derived in two student samples. This finding implies that instructional strategies that are aimed at augmenting student empathy should be embedded into educational activities, such as teamwork, role playing, and social distance (Hojat, Bianco, Mann, Massello, & Calabrese, 2014; Rivers, Wickramasekera II, Pekala, & Rivers, 2016; Stephan, Liberman, & Trope, 2011); such measures would be particularly beneficial for Taiwanese students in constructing their entrepreneurial belief through the mediation of entrepreneurial creativity.

Although empathy significantly affected the SEI of Taiwanese students, its effects on the Hong Kong students were marginal. A common objective of Hong Kong social enterprises is to mitigate poverty (Chan, Kuan, & Wang, 2011), but acts to relieve poverty are diverse and SE is but one of numerous approaches. The collective tendency toward pragmatism held by Hongkongers (Lee, 2010) may discourage them from adhering to a single SE resolution. Furthermore, Hong Kong is a highly internationalized

region, with a complicated mixture of individualism and collectivism due to the influences of both British colonization and Chinese governance. By contrast, the Taiwanese tend to be more collectivistic because of the influences of both Japanese colonization and cultural connection to a great respect for Confucianism; empathy could thus have a diverse range of impacts on entrepreneurial creativity (Kim, Lee, Chae, Anderson, & Laurence, 2011; Tan, 2016). In other words, the effects engendered by this emotional sharing capability can be realized by the person–context relationships between Taiwan and Hong Kong.

Moral Obligation

The effects of moral obligation on SEI through entrepreneurial creativity were negative, and this finding is echoed by those of previous studies (Mumford et al., 2010; Osti, 2012). The negative effects were particularly noticeable on the entrepreneurial conviction of Taiwanese students. This result implies that the effects of moral obligation on SEI could be detrimental when entrepreneurial approaches become excessively uncommon. In other words, any social innovation would need to be accepted by the marketplace, or it could be seen as only a grandstanding act that would shake entrepreneurial belief and conduct. Therefore, entrepreneurial educators should consider this while giving students entrepreneurial advice regarding social innovation. In addition, the effects on the Hong Kong sample were non-significant, which could thus be ignored.

Our findings, compared with the contradictory results of Hockerts' (2017) three samples, prompted us to rethink the justification of moral judgement (Mair & Noboa, 2006) or moral obligation (Hockerts, 2017) as a proxy for social norms (Ajzen, 1991). Hockerts' proxy decision was based on the belief that moral obligation is positioned between the act of moral judgement and the formation of moral intent. However, Chell and colleagues (2016, p. 623) indicated that the motives of social entrepreneurs could be "impurely altruistic," which may include the desire for status, recognition, respect, friendship, or other private benefits. In other words, SEI may not be perceived as a moral intent. Furthermore, both moral judgement and moral obligation are not necessarily linked to general business contexts; thus this proxy could be further substituted with *social responsibility*, which is considerably close to the modern business world and warrants extensive inquiry.

Self-Efficacy

The results indicate that self-efficacy affected SEI, exhibiting a particular effect on intentional conviction in the Taiwan sample; this finding concurs with those of prior research (Mueller & Dato-On, 2008; Piperopoulos &

Dimov, 2015). Appropriate strategies for enhancing self-efficacy may include setting appropriate task demands and expectations, providing explicit feedback, demonstrating confidence in students, and recognizing and praising effort promptly. Similar to moral obligation, the effects of self-efficacy primarily came from the mediating power of entrepreneurial creativity (Rego et al., 2012; Zhou & Hoever, 2014); this finding implies that the aforementioned strategies must be executed in conjunction with learning activities promoting entrepreneurial novelty and flexibility.

However, the effects of self-efficacy on SEI in the Hong Kong sample were marginal, a finding that is inconsistent with those of Lans, Gulikers, and Batterink (2010), Hockerts (2017), and Ip et al. (2017). One possible explanation for this contradiction is the current socioeconomic context of Hong Kong, which is now a special administrative region of the People's Republic of China (PRC) with a limited degree of autonomy. China (the PRC) has the ultimate and institutionalized political power to determine the pace of development in Hong Kong (Seng, Keung, & Cheng, 2008). The struggle for SE in Hong Kong seems to be the struggle to define a harsh reality, rather than individual self-efficacy. The other possible reason for this result is that people have multiple alternatives in a highly urbanized region such as Hong Kong and can engage in careers other than being social entrepreneurs. Although China continues to claim that Taiwan (the Republic of China, ROC) is under its governance, the ROC is the legitimate government of Taiwan, where young generations enjoy full democratic freedom and possess comparatively higher levels of self-efficacy than Hongkongers.

Perceived Social Support

Perceived social support was revealed to exhibit a dominant and direct power on SEI, as well as a minor effect through entrepreneurial creativity, agreeing with the findings of previous studies (Chan, 2016; Estrin et al., 2013; Yousaf & Ghayas, 2015). Accordingly, students with high levels of perceived social support are likely to maintain high levels of action-related intention in social innovation. High levels of social support require dense social networks, both homogeneous and heterogeneous (Sivadas & Dwyer, 2000), and the source of social support is an important determinant of its effectiveness as a coping strategy (Ozbay et al., 2007). Therefore, entrepreneurial educators should encourage students to construct and maintain their social capital, particularly in both aspects of diversity and strength.

Although perceived social support was confirmed to be the robust motivator for SEI in this study, some scholars have warned that its effects are more negative in a transitional economy, such as in Hong Kong and Taiwan, than in a market economy (Luk et al., 2008). Additionally, the goals

of social entrepreneurs are usually exclusive and central (Zeyen et al., 2013); hence, they may primarily focus on devotion to society in their own way and ignore other opinions and alternatives that may generate higher levels of social support. How these external economics and internal motives exactly affect SEI warrants future inquiry. Moreover, SE practices are heavily influenced by the pragmatic predisposition of the Hong Kong people, and the influence may underline a tendency to consider concrete interests and reality (Seng et al., 2008), particularly under China's ruling power. This collective tendency and political reality can explain why the effects of perceived social support on SEI were higher in the Hong Kong sample than in the Taiwan sample.

Originality

Originality usually refers to the capability to generate thoughts and actions that are considered novel or unique within a particular sociocultural context. In this study, this capability was found to have dominant effects on both dimensions of SEI and to successfully play a mediating role between SEI and its antecedents; this finding is supported by those of previous studies (Olufunso, 2010; Zampetakis, 2008). The influence of originality on conviction was generally greater than that on preparation, implying that novel ideas and approaches could be more beneficial to belief-building, compared with action-taking. Entrepreneurial educators should focus on enhancing student creativity by arranging diverse opportunities for SE teamwork so that students can experience idea cross-fertilization processes and outcomes. In particular, educators should facilitate students' passion by encouraging unique ideas during the initial phase, and then emphasizing flexible approaches to trigger entrepreneurial actions for social innovation.

Hong Kong people tend to believe that creativity is an inborn ability, and that it depends on effort and logical thinking (Seng et al., 2008); this means that novelty has its rational limitations and that logical thinking can assist in reducing ambiguity and strengthening conviction, but may not lead to actions. This can explain why the effect of originality on conviction was greater in the Hong Kong sample than in the Taiwan sample. Furthermore, the development of SE is more mature in Hong Kong than in Taiwan. Most Hong Kong people have recognized the value of SE, and novel SE ideas can more easily be accepted in Hong Kong than in Taiwan, which may facilitate students' entrepreneurial conviction. Entrepreneurial educators in Hong Kong may need to focus on collective benefits and stimulating actions when designing coursework and planning placement experiences, as well as on the creation of phased check-ins and celebrations.

Usefulness

Usefulness usually refers to the capability to generate thoughts and actions that are considered appropriate, effective, or valuable within a particular sociocultural context. In this study, this capability was found to have auxiliary effects on entrepreneurial conviction and to play a supporting mediating role between SEI and its antecedents. Notably, although the effect of usefulness on preparation was non-significant in both samples, its effect on conviction was positive in the Taiwanese students and negative in the Hong Kong students. These results indicate that different intentional dimensions demand different creative approaches, and that the effect generated by the same creativity dimension can result in opposite outcomes in different contexts.

The concept of SE is new to Taiwan. Most Taiwanese people perceive social contributions to be traditional public services such as fundraising for philanthropic organizations. Individuals who think that they understand customer needs and that their business model is sufficiently practical to meet the dual SE purposes tend to believe that they can perform well in the field of SE. However, Hong Kong people are much more familiar with SE practices and are recognized as possessing the collective tendency toward pragmatism. Individuals having market-driven business plans or valuable business models may turn back to profit organizations and fulfil their social responsibility through other channels, such as donations and voluntary engagements, rather than adhere to SE. The differing maturation levels of SE in each region and the different reactions towards practical SE ideas distinguish the Taiwan sample from the Hong Kong sample in terms of the influence of usefulness.

CONCLUSIONS, LIMITATIONS, AND CONTRIBUTIONS

Overall, the proposed multiple mediation model across regions is supported. Prior experience with social problems, perceived social support, and originality are verified as the most prominent influencers of the SEIs of university students. The major differences between Taiwan and Hong Kong lay in the effects generated by prior experience with social problems, empathy, self-efficacy, perceived social support, and usefulness. Critically speaking, without elaboration on macro histories and micro considerations along with their intertwined connections, entrepreneurship research may not be warranted. A key approach is to continually evaluate the extent to which person-context interactions are influenced by the dynamics of upcoming socioenvironmental problems. The new demand and opportunity for further inquiry in diverse SE topics are currently emerging.

As is the case with all studies, this study has limitations. First, under the same framework, different sets of participants (in this case, students from two regions) would result in unique research outcomes, similar to the results derived by Forster and Grichnik (2013) and Hockerts (2017) after comparing different student samples. More cross-cultural studies should be conducted to more comprehensively analyze SEI. Second, the predictive validity of our model could be stronger. In addition to the possible substitute of moral obligation, the perceived desirability and feasibility suggested in Ajzen's (1991) TPB and removed by Hockerts (2017) to avoid multicollinearity problems should be retested in future research. Third, to improve predictive validity, each variable should be reexamined in detail (e.g., cognitive vs. emotional empathy, situational vs. dispositional empathy, general vs. work self-efficacy, and social capitals vs. social support). Additional intrinsic and extrinsic variables (personality traits, types of social problems, natures of professional fields, and socioeconomic contexts) may be taken into account. Finally, this study may have triggered bias in self-reporting. We adopted simple measures without sensitive questions, conducted CFA to confirm factor structures, and offered necessary feedback after the survey to reduce this bias. Therefore, fine-tuning in methodology in future inquiry is warranted.

Despite these limitations, our results provide several contributions to SE scholarship. First, the suggestion for additional antecedents and mediators of entrepreneurial creativity was successfully confirmed. Second, we carefully reviewed empirical research and examined the effects of moral obligation, before critically reflecting and suggesting social responsibility as an alternative proxy for moral obligation. Third, based on the same framework, we compared the SEI of university students across contexts and discussed the differences resulting from the person–context interactions in detail; this approach enriches and advances SE research. Finally, enhancing student interest and commitment to SE practices should be among the major goals of contemporary higher education. This study provides promising approaches for the talent development of social entrepreneurs. These contributions lay the groundwork for future research, demanding greater efforts and meriting further exploration.

REFERENCES

- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behaviour and Human Decision Processes*, 50, 179–211. doi:10.1016/0749-5978(91)90020-T
- Al-Srouf, H. N., & Al-Oweidi, A. (2013). The relationship between psychological pressure and creativity among graduate students in the University of Jordan. *International Journal of Humanities and Social Science*, 3, 133–136.
- Amabile, T. M. (1997). Entrepreneurial creativity through motivational synergy. *Journal of Creative Behavior*, 31, 18–26. doi:10.1002/j.2162-6057.1997.tb00778.x
- Backman, E. V., & Smith, S. R. (2000). Healthy organizations, unhealthy communities? *Nonprofit Management and Leadership*, 10, 355–373. doi:10.1002/nml.10402
- Bandura, A. (2000). Cultivate self-efficacy for personal and organizational effectiveness. In E. A. Locke (Ed.), *Handbook of principles of organization behaviour* (pp. 120–136). Oxford, UK: Blackwell.
- Borman, W. C., Penner, L. A., Allen, T. D., & Motowidlo, S. J. (2001). Personality predictors of citizenship performance. *International Journal of Selection and Assessment*, 9, 52–69. doi:10.1111/1468-2389.00163
- Bridgestock, L. (2013). *PhDs in business & management: Five hot research topics*. Retrieved May, 15 2017 from <https://www.topuniversities.com/courses/business-management-studies/phds-business-management-five-hot-research-topics>
- Carlozzi, A. F., Bull, K. S., Eells, G. T., & Hurlburt, J. D. (1995). Empathy as related to creativity, dogmatism, and expressiveness. *Journal of Psychology*, 129, 365–373. doi:10.1080/00223980.1995.9914974
- Carr, J. C., & Sequeira, J. M. (2007). Prior family business exposure as intergenerational influence and entrepreneurial intent: A theory of planned behavior approach. *Journal of Business Research*, 60, 1090–1098. doi:10.1016/j.jbusres.2006.12.016
- Chan, A. (2016). Personal wellbeing of participants of social purpose enterprises: The influence of social support. *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, 27, 1718–1741. doi:10.1007/s11266-015-9637-4
- Chan, K.-T., Kuan, -Y.-Y., & Wang, S.-T. (2011). Similarities and divergences: Comparison of social enterprises in Hong Kong and Taiwan. *Social Enterprise Journal*, 7, 33–49. doi:10.1108/17508611111130149
- Chell, E., Spence, L. J., Perrini, F., & Harris, J. D. (2016). Social entrepreneurship and business ethics: Does social equal ethical?. *Journal of Business Ethics*, 133, 619–625.
- Chia, C.-C., & Liang, C. (2016). Influence of creativity and social capital on the entrepreneurial intention of tourism students. *Journal of Entrepreneurship, Management and Innovation*, 12, 151–168.
- Chua, R. Y.-J., & Iyengar, S. S. (2008). Creativity as a matter of choice: Prior experience and task instruction as boundary conditions for the positive effect of choice on creativity. *Journal of Creative Behavior*, 42, 164–180. doi:10.1002/j.2162-6057.2008.tb01293.x
- Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. *Academy of Management Perspectives*, 24, 37–57. doi:10.5465/AMP.2010.52842950
- Dees, J. G. (2012). A tale of two cultures: Charity, problem solving, and the future of social entrepreneurship. *Journal of Business Ethics*, 111, 321–334. doi:10.1007/s10551-012-1412-5
- Estrin, S., Mickiewicz, T., & Stephan, U. (2013). Entrepreneurship, social capital, and institutions: Social and commercial entrepreneurship across nations. *Entrepreneurship Theory and Practice*, 37, 479–504. doi:10.1111/etap.2013.37.issue-3
- Forster, F., & Grichnik, D. (2013). Social entrepreneurial intention formation of corporate volunteers. *Journal of Social Entrepreneurship*, 4, 153–181. doi:10.1080/19420676.2013.777358
- Gemmell, R. M., Bolland, R. J., & Kolb, D. A. (2012). The socio-cognitive dynamics of entrepreneurial ideation. *Entrepreneurship Theory and Practice*, 36, 1053–1073. doi:10.1111/etap.2012.36.issue-5
- Grant, A. M., & Berry, J. W. (2011). The necessity of others is the mother of invention: Intrinsic and prosocial motivations, perspective taking, and creativity. *Academy of Management Journal*, 54, 73–96. doi:10.5465/AMJ.2011.59215085
- Hemingway, C. A. (2005). Personal values as a catalyst for corporate social entrepreneurship. *Journal of Business Ethics*, 60, 233–249. doi:10.1007/s10551-005-0132-5
- Hockerts, K. (2017). Determinants of social entrepreneurial intentions. *Entrepreneurship Theory and Practice*, 41, 105–130. doi:10.1111/etap.2017.41.issue-1

- Hogg, G., Hibbert, S. A., & Quinn, T. (2005). Social entrepreneurship: Understanding consumer motives for buying the big issue. *Journal of Consumer Behaviour*, 4, 159–172. doi:10.1002/cb.6
- Hojat, M., Bianco, J. A., Mann, D., Massello, D., & Calabrese, L. H. (2014). Overlap between empathy, teamwork and integrative approach to patient care. *Medical Teacher*, 37, 755–758. doi:10.3109/0142159X.2014.971722
- Ip, C. Y., Wu, S.-C., Liu, H.-C., & Liang, C. (2017). Revisiting the antecedents of social entrepreneurial intentions in Hong Kong. *International Journal of Educational Psychology*, 6, 301–323. doi:10.17583/ijep.2017.2835
- Kim, K. H., Lee, H. E., Chae, K.-B., Anderson, L., & Laurence, C. (2011). Creativity and confucianism among American and Korean educators. *Creativity Research Journal*, 23, 357–371. doi:10.1080/10400419.2011.621853
- Konakll, T. (2015). Effects of self-efficacy on social entrepreneurship in education: A correlational research. *Research in Education*, 94, 30–43. doi:10.7227/RIE.0019
- Lans, T., Gulikers, J., & Batterink, M. (2010). Moving beyond traditional measures of entrepreneurial intentions in a study among life-sciences' students in the Netherlands. *Research in Post-Compulsory Education*, 15, 259–274. doi:10.1080/13596748.2010.503997
- Lee, F. L. F. (2010). Pragmatism, perceived reality, and Hong Kong people's attitudes toward democratic reform. *Issues & Studies*, 46, 189–219.
- Liang, C., Chang, -C.-C., Liang, C.-T., & Liu, Y.-C. (2017). Imagining future success: Imaginative capacity on the perceived performance of potential agrisocio entrepreneurs. *Thinking Skills and Creativity*, 23, 161–174. doi:10.1016/j.tsc.2016.12.007
- Liang, C., Liang, C.-T., & Liu, Y.-C. (2017). Leveraging entrepreneurial alertness by optimising the imaginative capacity of agrirural entrepreneurs. *Business creativity & the creative economy*, 3, 54–64.
- Liu, H.-C., Ip, C. Y., & Liang, C. (2018). A new runway for journalists: On the intentions of journalists to start social enterprises. *Journal of Entrepreneurship, Management and Innovation*.
- London, M. (2010). Understanding social advocacy: An integrative model of motivation, strategy, and persistence in support of corporate social responsibility and social entrepreneurship. *Journal of Management Development*, 29, 224–245. doi:10.1108/02621711011025768
- Luk, C. L., Yau, O. H., Sin, L. Y., Tse, A. C., Chow, R. P., & Lee, J. S. (2008). The effects of social capital and organizational innovativeness in different institutional contexts. *Journal of International Business Studies*, 39, 589–612. doi:10.1057/palgrave.jibs.8400373
- MacKinnon, D. P., Lockwood, C. M., Hoffman, J. M., West, S. G., & Sheets, V. (2002). A comparison of methods to test mediation and other intervening variable effects. *Psychological Methods*, 7, 83–104. doi:10.1037/1082-989X.7.1.83
- Mair, J., & Noboa, E. (2006). Social entrepreneurship: How intentions to create a social venture are formed. In J. Mair, J. Robinson, & K. N. Hockerts (Eds.), *Social entrepreneurship* (pp. 121–135). Basingstoke, U. K.: Palgrave MacMillan.
- Miller, T. L., Grimes, M. G., McMullen, J. S., & Vogus, T. J. (2012). Venturing for others with heart and head: How compassion encourages social entrepreneurship. *Academy of Management Review*, 37, 616–640. doi:10.5465/amr.2010.0456
- Miralles, F., Giones, F., & Riverola, C. (2016). Evaluating the impact of prior experience in entrepreneurial intention. *International Entrepreneurship and Management Journal*, 12, 791–813. doi:10.1007/s11365-015-0365-4
- Moorthy, R., & Annamalah, S. (2014). Consumers' perceptions towards motivational intentions of social entrepreneurs in Malaysia. *Review of Integrative Business & Economics Research*, 3, 257–287.
- Mueller, S. L., & Dato-On, M. C. (2008). Gender-role orientation as a determinant of entrepreneurial self-efficacy. *Journal of Developmental Entrepreneurship*, 13, 3–20. doi:10.1142/S108494670800082X
- Mumford, M. D., Waples, E. P., Antes, A. L., Brown, R. P., Connelly, S., Murphy, S. T., & Devenport, L. D. (2010). Creativity and ethics: The relationship of creative and ethical problem-solving. *Creativity Research Journal*, 22, 74–89. doi:10.1080/10400410903579619
- Nga, J. K. H., & Shamuganathan, G. (2010). The influence of personality traits and demographic factors on social entrepreneurship start up intentions. *Journal of Business Ethics*, 95, 259–282. doi:10.1007/s10551-009-0358-8
- Olufunso, O. F. (2010). Graduate entrepreneurial intentions in south Africa: Motivation and obstacles. *International Journal of Business and Management*, 5, 87–98.
- Osti, G. (2012). Green social cooperatives in Italy: A practical way to cover the three pillars of sustainability? *Sustainability: Science, Practice, & Policy*, 8, 82–93.
- Oswald, P. A. (1996). The effects of cognitive and affective perspective taking on empathy concern and altruistic helping. *Journal of Social Psychology*, 136, 613–623. doi:10.1080/00224545.1996.9714045
- Ozbay, F., Johnson, D. C., Dimoulas, E., Morgan, C. A., III, Charney, D., & Southwick, S. (2007). Social support and resilience to stress: From neurobiology to clinical practice. *Psychiatry*, 4, 35–40.
- Piperopoulos, P., & Dimov, D. (2015). Burst bubbles or build steam? Entrepreneurship education, entrepreneurial self-efficacy, and entrepreneurial intentions. *Journal of Small Business Management*, 53, 970–985. doi:10.1111/jsbm.12116
- Puhakka, V. (2012). Entrepreneurial creativity as discovery and exploitation of business opportunities. In T. Burger-Helmchen (Ed.), *Entrepreneurship: Creativity and innovative business models* (pp. 3–24). Rijeka, Croatia: InTechOpen.
- Rego, A., Sousa, F., Marques, C., & Cunha, M. P. (2012). Retail employees' self-efficacy and hope predicting their positive affect and creativity. *European Journal of Work and Organizational Psychology*, 21, 923–945. doi:10.1080/1359432X.2011.610891
- Richter, A. W., Hirst, G., Van Knippenberg, D., & Baer, M. (2012). Creative self-efficacy and individual creativity in team contexts: Cross-level interactions with team informational resources. *Journal of Applied Psychology*, 97, 1282–1290. doi:10.1037/a0029359
- Rivers, A., Wickramasekera II, I. E., Pekala, R. J., & Rivers, J. A. (2016). Empathic features and absorption in fantasy role-playing. *American Journal of Clinical Hypnosis*, 58, 286–294. doi:10.1080/00029157.2015.1103696
- Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal*, 24, 92–96. doi:10.1080/10400419.2012.650092
- Ruvio, A. A., & Shoham, A. (2010). A multilevel study of nascent social ventures. *International Small Business Journal*, 29, 562–579. doi:10.1177/0266242610369741
- Seng, Q. K., Keung, H. K., & Cheng, S. K. (2008). Implicit theories of creativity: A comparison of student-teachers in Hong Kong and Singapore. *Compare*, 38, 71–86. doi:10.1080/03057920701419959
- Shaw, E., & Carter, S. (2007). Social entrepreneurship: Theoretical antecedents and empirical analysis of entrepreneurial processes and outcomes. *Journal of Small Business and Enterprise Development*, 14, 418–434. doi:10.1108/14626000710773529
- Sivadas, E., & Dwyer, F. R. (2000). An examination of organizational factors influence new product success in internal and alliance-based processes. *Journal of Marketing*, 64, 31–49. doi:10.1509/jmkg.64.1.31.17985
- Smith, R., Bell, R., & Watts, H. (2014). Personality trait differences between traditional and social entrepreneurs. *Social Enterprise Journal*, 10(3), 200–221. doi:10.1108/SEJ-08-2013-0033
- So, C., & Joo, J. (2017). Does a persona improve creativity? *Design Journal*. doi:10.1080/14606925.2017.1319672
- Stephan, E., Liberman, N., & Trope, Y. (2011). The effects of time perspective and level of construal on social distance. *Journal of Experimental Social Psychology*, 47, 397–402. doi:10.1016/j.jesp.2010.11.001
- Tan, C. (2016). Creativity and Confucius. *Journal of Genius and Eminence*, 1, 79–84.

- Tracey, P., & Phillips, N. (2007). The distinctive challenge of educating social entrepreneurs: A postscript and rejoinder to the special issue on entrepreneurship education. *Academy of Management Learning and Education*, 6, 264–271. doi:[10.5465/AMLE.2007.25223465](https://doi.org/10.5465/AMLE.2007.25223465)
- Tukamushaba, E. K., Orobias, L., & George, B. P. (2011). Development of a conceptual model to understand international social entrepreneurship and its application in the Ugandan context. *Journal of International Entrepreneurship*, 9, 282–298. doi:[10.1007/s10843-011-0079-9](https://doi.org/10.1007/s10843-011-0079-9)
- Wang, J.-H., Chang, -C.-C., Yao, S.-N., & Liang, C. (2016). The contribution of self-efficacy to the relationship between personality traits and entrepreneurial intention. *Higher Education: The International Journal of Higher Education Research*, 72, 209–224. doi:[10.1007/s10734-015-9946-y](https://doi.org/10.1007/s10734-015-9946-y)
- Yaniv, D. (2012). Dynamics of creativity and empathy in role reversal: Contributions from neuroscience. *Review of General Psychology*, 16, 70–77. doi:[10.1037/a0026580](https://doi.org/10.1037/a0026580)
- Yousaf, A., & Ghayas, S. (2015). Impact of perceived social support and gender on creativity level of university undergraduates. *International Journal of Research Studies in Psychology*, 4, 3–16. doi:[10.5861/ijrsp.2015.923](https://doi.org/10.5861/ijrsp.2015.923)
- Zampetakis, L. A. (2008). The role of creativity and proactivity on perceived entrepreneurial desirability. *Thinking Skills and Creativity*, 3, 154–162. doi:[10.1016/j.tsc.2008.07.002](https://doi.org/10.1016/j.tsc.2008.07.002)
- Zeyen, A., Beckmann, M., Mueller, S., Dees, J. G., Khanin, D., Krueger, N., ... Zacharakis, A. (2013). Social entrepreneurship and broader theories: Shedding new light on the ‘Bigger Picture’. *Journal of Social Entrepreneurship*, 4, 88–107. doi:[10.1080/19420676.2012.725422](https://doi.org/10.1080/19420676.2012.725422)
- Zhou, J., & Hoever, I. J. (2014). Research on workplace creativity: A review and redirection. *Annual Review of Organizational Psychology and Organizational Behavior*, 1, 333–359. doi:[10.1146/annurev-orgpsych-031413-091226](https://doi.org/10.1146/annurev-orgpsych-031413-091226)