Entrepreneurship Intention among Nepalese MBA Graduates: Impact of Entrepreneurial Ecosystem Factors

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Abstract

The purpose of the research presented in this paper is to examine the effects of seven entrepreneurial ecosystem factors on entrepreneurship intention among Nepalese MBA students, in Kathmandu Valley. The research employed structural equation modelling (SEM) to interpret the perception-based survey data collected from 343 respondents. The empirical results indicate a strong positive correlation between individual capabilities and entrepreneurial intention. Students' perception of an informal support system has a significant positive effect on entrepreneurial intention. The study suggested that an elevated level of entrepreneurial ecosystem development is not required to influence entrepreneurial intention; improvement on some factors like family and social support, skill-building education, and training might increase entrepreneurial intentions. This research offers educators and policymakers with the opportunity to develop entrepreneurial skills among students, and to provide the infrastructure support which can serve as a basis for translating intentions into actions to address significant employment gaps present in developing economies like Nepal.

Keywords: entrepreneurial ecosystem, entrepreneurial intentions, entrepreneur, graduate students

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Introduction

Entrepreneurship is the method of venture creation through innovation, value creation, finding opportunities and bringing products and services that satisfy consumer needs (Shane, 2012). Entrepreneurs require diverse kinds of support from different actors to succeed and to achieve sustainable economic growth for society (Isenberg, 2011). According to Herrington et al. (2011), a healthy entrepreneurial ecosystem is essential to promote entrepreneurial activity by bringing together people, organizations, and resources, in a supportive system. Actors in an entrepreneurial ecosystem include an interactive community of government officials, consultants, university-based researchers, service providers, investors, entrepreneurs, employees, mentors, large organizations, role models, and media (Hechavarria & Ingram, 2019). Recognition of the inter-dependency between ecosystem factors and actors is essential for sustainable long term entrepreneurial success and to actively establish an integrated entrepreneurial culture in a society (Mack & Mayer, 2016).

Factors associated with entrepreneurial activity which are often studied are demographic factors (age, gender, past business experience and family background), personality factors (need for achievement, risk taking, locus of control, self-efficacy, opportunity recognition, etc.) and external environment factors (access to finance, social networks, available business information and institutional environment, etc.). An earlier study by one of the authors showed that there was no significant correlation between gender and age of business management students in Kathmandu with their entrepreneurial intention, but students who had a family business background had a higher business intention level compared to those students who did not have early or previous exposure to a business experience (Prajapati, 2019). Karimi et al. (2017) found that the relationship between personality traits and entrepreneurial intention may be different in developing countries in comparison to developed countries. For this study we focused on environmental factors since they have a significant impact on entrepreneurs' views about feasibility of entrepreneurship, and that entrepreneurial intention is one of the most crucial factors in the entrepreneurial process for an individual choosing to pursue entrepreneurship (Ali et al., 2019; Arshad et al., 2019). By understanding what causes entrepreneurial intention formation, we can begin to understand and predict entrepreneurial activity development (Krueger, Reilly & Carsrud, 2000).

Most of the studies on entrepreneurial ecosystem research is from developed countries, with little or no consideration to the underdeveloped economies like Nepal (Acharya & Pandey, 2018; Al Saiqal et al., 2019; Ahmad, 2011).

There exist significant differences in the institutional infrastructures between developed and underdeveloped economies. This research adds to the field of knowledge in entrepreneurship addressing how the entrepreneurial ecosystem influences students' entrepreneurial intentions. The study presents an opportunity for educators, and policy makers to intervene to foster an entrepreneurial spirit in students, laying the groundwork to turn intention into actions that can help address significant employment challenges in underdeveloped economies like Nepal.

Theoretical background and hypothesis development

Entrepreneurial Intention (EI)

Entrepreneurial intention (EI) is considered to be one of the best indicators of future entrepreneurial behavior and actions. Intent is a cognitive state causally essential to the entrepreneurial process and no future entrepreneurial actions will occur in its absence (Krueger, 2017). Vidal-Suñé and López-Panisello (2013) described EI as the mindset of individuals concerning their willingness or interest to establish or engage in a new business venture, and we have used this definition for this study. We also have used the Theory of Planned Behaviour (TPB) (Ajzen, 1991) and the Entrepreneurial event model (Shapero & Sokol, 1982) to examine EI.

The theory of planned behavior (TPB) is useful to predict and explain an individual's behavior in specific contexts. TPB explains that values determine attitudes, which drive intentions, which precede behaviors. An entrepreneur starts a new venture intentionally and conducts planned activities to grow the business. This intention depends on perceptions of competence and control as well as social and personal desirability of entrepreneurship (Shepherd & Krueger, 2002). According to the TPB, entrepreneurship behavior can be explained by studying entrepreneurial intention, since intention formation depends on individual attitudes toward the target behavior; personal beliefs that certain behaviors will produce the desired outcome or not; subjective norms and expectations of family and culture (social pressures and expectations to perform or to not perform the behavior), and perceived behavioral control (perceived ease or difficulty of performing the behavior). An individual's perception about own behavior; how favourable or unfavourable it is to carry on a particular activity explains attitude toward the behavior. The prediction of the possible consequences and outcomes of particular behavior influences the initial decision (Ajzen, 1991).

The entrepreneurship event model developed by Shapero and Sokol (1982) has three elements which drive entrepreneurial intention: displacement, perceived desirability, and perceived feasibility. Displacement is the trigger that causes the intention. Displacement can be negative such as dissatisfaction in current job or positive, such as rewards entrepreneurship can offer. Perceived desirability is the attractiveness of what the entrepreneurial enterprise offers and the pull from culture, family, peers, investors, customers, and mentors; and perceived feasibility depends on perceived capability to start a new venture. Feasibility perceptions depend on available financial support, demonstrations of capability, availability of business partners, investors and mentors, and availability of business models and required support systems.

Entrepreneurship Ecosystem (EE)

An entrepreneurial ecosystem (EE) consists of a combination of inter-dependent actors and components, in an entrepreneurial space, which are organized in such a way to facilitate entrepreneurship and consequently contribute to national or regional economic growth (Isenberg, 2011; Stam, 2015). Mason and Brown (2014) argued that entrepreneurial ecosystems are more characterized by location which attracts individuals rather than individual characteristics. For example, Silicon Valley, Hamamatsu, and the Oxford entrepreneurial ecosystem are very localized entrepreneurial ecosystems which function at city or city-regional level. The characteristics of these localized entrepreneurial environments positively influence their growth (Aoyama, 2009). At the same time, spatial entrepreneurial dynamics also need to consider supranational, national, regional, and local level dynamics (Bosma & Sternberg, 2014).

A study framework proposed by Brown and Mason, 2017; Malecki, 2018; and Stam and Van de Ven, 2019; generated mutually interdependent seven factors under three categories, i.e., institutional support, resources availability, and new value creation, for studying different entrepreneurial ecosystem factors and their impact on high-performing firms. The different components of the ecosystem are viewed as legal, financial, physical, political, cultural, human, and organizational components which display capability to assist and advance entrepreneurship. These components facilitate informal and formal networking; knowledge, skills, and information sharing; entrepreneurship training; research and development support; access to finance and ease of financial management; talent management; cultural and social support; legal and physical infrastructure that facilitate entrepreneurial activity to lead value creation (Thai, Mai, & Do, 2023).

Entrepreneurial Ecosystem and Entrepreneurial Intention

Education is an important factor that provides entrepreneurs the confidence regarding financial independence, prosperity, significance of new venture creation, and skills to do it (Akhter & Sumi, 2014). Students who have prior exposure to entrepreneurial education improve business skills, abilities, knowledge and other important behavior like tenacity, innovation, coordination. and sense of responsibility (Krastina, 2017). Thus, universities are important actors of entrepreneurship education that prepares students to work in a new and challenging environment and assist in economic development of the country (Kozhakhmetov et al., 2016). Entrepreneurial education aims to develop students' intentions to start a business and to make those intentions more realistic (Krueger, 2017).

Entering international markets involves different challenges to the realisation of entrepreneurial opportunity in the home-market. Since domestic markets are also open to international competitors, it is important for students to be knowledgeable of international product and resource opportunities, and develop capabilities to operate in the complex environments of local/global entrepreneurship (Covin & Miller, 2014).

Olutuase, Brijlal, and Yan (2018) examined the effects of an entrepreneur ecosystem on entrepreneur intention using a cross-sectional survey among 191 university graduates. Government policies, access to financial support, physical infrastructure support, and availability of business protection laws were considered factors for the study. Findings showed that the perception of a supportive entrepreneurship ecosystem positively influences graduate intention; however, it's context dependent. The intention of starting a new business and its success highly depends upon the availability of perceived support from the environment. The ecosystem impacts the perception and decision of the individual prospects of starting a new venture (Hitt, Ireland, Camp, & Sexton, 2001). Kee et al., (2019) argued that the availability of supportive factors such as financial support, technology support, soft skills development training, and market entry facilitation support during early stages influence the decision to start a new business. The results of a mixed methods study by Aljarwan et al. (2019) showed that the government plays an important role in facilitating entrepreneurial moments in the country. Entrepreneurs rank financial support, market support, and human capital availability as critical factors for them to succeed. Lane (2016) highlights the importance of promoting innovation and creativity to create an entrepreneurial environment in the context of university education. The environmental conditions of

underdeveloped economies like Nepal influence entrepreneurial intentions in a way that is different from those of developed and developing countries (Nepal et al., 2021). Thus, based on the previous argument we hypothesize that:

H1: Entrepreneurial capabilities have a significant positive effect on EI.

H2: Socio-cultural support has a significant positive effect on EI.

H3: Government policies and programs have a significant positive effect on developing EI.

H4: Access to finances has a significant positive effect on EI.

H5: Physical infrastructure support system has a significant positive effect on EI.

H6: Availability of information, education, and training support has a significant positive effect on EI.

H7: Interenationalisation support systems has a significant positive effect on EI.

Based on the entrepreneurship ecosystem literature, seven factors were considered that influences students' EI.

Research Methodology

The aim of the study was to understand how entrepreneurship ecosystem factors influence the EI of business administration graduate students. Thus, the target populations were all graduate students pursuing their master's in business administration (MBA). For the selection of the students' respondents, a purposive sampling method was implemented. From a population of 25 business schools in Nepal, a total of 10 colleges located at Kathmandu valley were selected that had entrepreneurship-related courses in the curriculum. The college websites were reviewed, and contact was made to the college management to confirm whether they have a support program or not for the students. Data for the study was collected via a self-administrated questionnaire, sent only to colleges which had an active student support program for business management students. We used 343 completed questionnaires after the data cleaning process.

The questionnaire contained a total of 25 items adapted from entrepreneurial framework condition survey developed by GEM researchers. It is structured

on a 7-point Likert scale; 1= strongly disagree to 7=strongly agree. The seven factors included were entrepreneurial capabilities (3 items), socio-cultural support (5 items), government support (4 items), access to finance (4 items), physical infrastructure support (2 items), access to information, education, and training (5 items), support for interenationalisation (2 items). GEM framework has more advantages than other frameworks due to the simple theoretical model, and longevity characteristics (Bergmann & Sternberg, 2007). Its validity was already established and was used by more than 100 economies to assess the entrepreneurial environment. The questionnaire was modified for the Kathmandu Valley context and subject matter experts reviewed and validated the questionnaire for the chosen context. Two items related to social culture support were omitted. Two items related to government support and finance access were merged into one item. Similarly, three items related to access to information, education, and training were merged with other questions. Three items related to internationalisation support were removed as they were not relevant to our context. The language and wording were changed for easy understanding by the respondents.

Additionally, we used four items from Liñán and Chen's (2009) instrument to measure entrepreneurial intentions on a 7-point scale; 1= strongly disagree to 7=strongly agree. It is a widely used and validated tool to measure EI among students.

Data analysis and results

Structural equation modeling was conducted in the SMART PLS 3 software to examine the influence of entrepreneurship ecosystem factors on students' entrepreneurial intention. It is a multivariate technique and suitable to be applied in behavioural studies when the study has multiple variables. This study included seven constructs as independent variables and one construct as the dependent variable, i.e., many constructs to observe; thus, Hair, Risher, Sarstedt, and Ringle (2019) recommended using structural equation modeling.

The study used an outer loading analysis, reliability analysis, discriminant validity, convergent validity, and multicollinearity to examine the model fit as suggested by Hair et al (2019). To investigate the factorability and sampling adequacy, the Kaiser–Meyer–Olkin (KMO) test and Bartlett's test of sphericity were performed. Kaiser-Meyer-Olkin's measure of sampling adequacy value is 0.883 and Bartlett's Test of Sphericity is significant (Approx. Chi-square 6402.876, Sig. 0.000).

The exploratory factor analysis in the SPSS and confirmatory factor analysis in the PLS result showed that one measurement item had to be removed. Table 1 is a summary of confirmatory factor analysis and access to finance item 4 was removed as it did not meet the factor loading requirement and had a negative effect on composite reliability and Average Variance Extracted (AVE). In this study, the overall SRMR (Standardised Root Mean Square residual) had a value of 0.049, and the NFI value is 0.848 which indicates that this model is a good fit and acceptable (Hair et al., 2017).

Table 1 displays the reliability, composite reliability, AVE for the measurement model. The reliability of the construct was evaluated using Cronbach's alpha and composite reliability. All Cronbach's alpha values exceeded 0.7, and all composite reliability values were also above 0.7, indicating that the scale demonstrates a satisfactory degree of internal consistency.

Table 1: Result of Measurement Model

Model Construct	Measurement Item	Loading	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Access to Finance	FIN 1	0.69	0.826	0.827	0.623
	FIN 2	0.643			
	FIN 3	0.99			
Access to Information, Education and Training	EDU 1	0.581	0.883	0.891	0.627
	EDU 2	0.699			
	EDU 3	0.86			
	EDU 4	0.931			
	EDU 5	0.838			
Entrepreneurial Capabilities	CAP 1	0.87	0.845	0.906	0.763
	CAP 2	0.888			
	CAP 3	0.863			
Government Support	GOV 1	0.864	0.875	0.904	0.704
	GOV 2	0.954			
	GOV 3	0.711			
	GOV 4	0.807			
Physical Infrastructure Support	PHY 1	0.991	0.811	0.882	0.791
	PHY 2	0.775			

Socio-Cultural Support	SOC 1	0.852	0.824	0.877	0.595
	SOC 2	0.89			
	SOC 3	0.505			
	SOC 4	0.797			
	SOC 5	0.754			
Support for Inter-enationalisation	INT 1	0.959	0.809	0.906	0.829
	INT 2	0.859			
Entrepreneurial Intention	EINT 1	0.862	0.915	0.94	0.798
	EINT 2	0.937			
	EINT 3	0.91			
	EINT 4	0.862			

Note: FIN 4 was deleted as it does not meet the essential requirement (loading <0.50) and affects the composite reliability and Average Variance Extracted (AVE)

The evaluation of discriminant validity was accomplished through the application of the cross-loading indicator and the Fornell & Larcker standard. As seen in Table 2, all the values on the diagonal; -that is, the square root of the AVE value for the construct- exceeded the inner construct correlation. Therefore, it showed a satisfactory degree of discriminant validity for the measure. Each factor considered within the ecosystem is measuring distinct constructs.

Table 2: Discriminant Validity (Fornell and Larcker Criterion)

	FIN	EDU	CAP	INT	GOV	EINT	PHY	SOC
FIN	0.789							
EDU	0.443	0.792						
CAP	0.113	0.191	**0.873**					
INT	-0.041	0.065	0.53	**0.893**				
GOV	0.45	0.344	0.068	-0.028	**0.893**			
EINT	0.51	0.531	0.079	-0.029	0.414	**0.910**		
PHY	0.367	0.387	0.207	0.046	0.134	0.454	0.889	
SOC	0.445	0.501	0.285	0.144	0.46	0.488	0.235	**0.771**

A multicollinearity test was performed to measure the correlation between independent variables using tolerance and Variance Inflation Factor (VIF). The VIF value yielded a result of 3, suggesting no issues with multicollinearity. This conclusion is drawn as all the VIF values were below ten, and tolerance values were above 0.2, in line with the criteria outlined (Sekaran & Bougie, 2010).

Table 3: Multicollinearity Analysis

	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
Entrepreneurial Capabilities	.885	1.130
Socio-Cultural Support	.590	1.694
Government Support	.681	1.469
Access to Finance	.467	2.143
Physical Infrastructure Support	.603	1.658
Access to Information, Education, and Training	.541	1.848
Support for Internationalisation	.489	2.047

The possibility of common method bias was assessed using Harman's Single factor test through SPSS. It resulted in a single factor that explained a total variance of 30.973%, a figure notably lower than the threshold of 50%. This suggests that the data did not suffer from common method bias.

Structural equation model: This study applied a non-parametric technique of bootstrapping (with500 sub-samples) to test the hypothesis through SEM. The result of the path coefficient is given in table 4.

Table 4: Path coefficient

	Standardized Coefficient	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Hypothesis Acceptance
Access to Finance -> Entrepreneurial Intention	-0.09	0.084	1.067	0.286	No
Access to Information, Education and Training -> Entrepreneurial Intention	0.014	0.087	0.156	0.876	Yes

Entrepreneurial Capabilities -> Entrepreneurial Intention	0.53	0.05	10.552	0.000	Yes
Government Support -> Entrepreneurial Intention	-0.042	0.076	0.551	0.582	No
Internalization -> Entrepreneurial Intention	-0.035	0.068	0.517	0.605	No
Physical Infrastructure Support -> Entrepreneurial Intention	-0.03	0.057	0.534	0.593	No
Socio-Cultural Support -> Entrepreneurial Intention	0.069	0.06	1.159	0.247	No

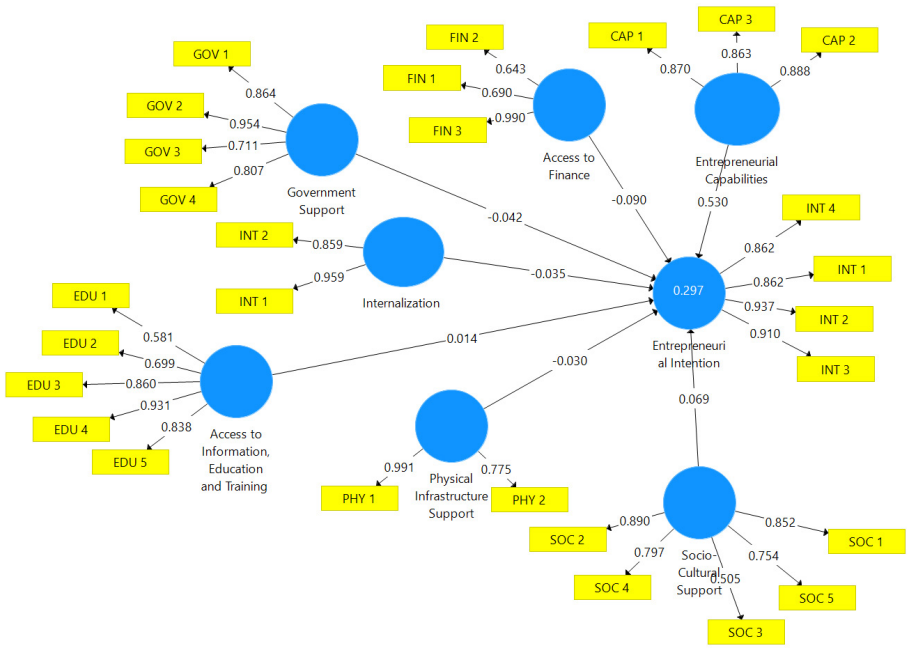

Figure 1: Structural Equation modelling

The results shown in Table 4 with the path coefficient values in Figure 1 shows that, access to finance, government support, physical infrastructure, and support for internationalisation had a negative impact on entrepreneurial intention whereas access to information, education, and training; socio-cultural support; and entrepreneurial capabilities had a positive impact. Among all the factors entrepreneurial capabilities was the most important ecosystem factor (value of 0.53), which was statistically significant.

Hypothesis Testing

H1: Entrepreneurial capability has a positive effect on EI.

The path coefficient between entrepreneurial capability and EI is 0.53 and statistically significant at a 5% significance level. Thus, hypothesis 1a is accepted.

H2: Students' perception of socio-cultural support has a significant positive effect on EI.

The path coefficient between socio-culture factor and growth intention is 0.007 and not statistically significant at a 5% significance level. Thus, H2 is not supported. It shows students' EI is not affected by their perception of socio-cultural support system.

H3: Students' perception of government policies and programs has a significant positive effect on developing EI.

The path coefficient between perceived government support and growth intention is -0.042, which is not statistically significant. The relationship is negative. It shows that perceived government support is not favourable among the students. Thus, H3 is not supported.

H4: Students' perception of access to finances has a significant positive effect on EI.

The path coefficient between perceived financial support and EI is-0.09, which is not statistically significant. thus, H4 is not supported

H5: Students' perception of a physical infrastructure support system has a significant positive effect on EI.

The path coefficient between perceived physical infrastructure support and EI is -0.03, which is not statistically significant. H5 is not supported.

H6: Students' perception of availability of information, education, and training support has a significant positive effect on EI.

The path coefficient between perceived access to information, education, and training support and EI is 0.014, which is not statistically significant. H6 is not supported.

H7: Students' perception of internationalisation support systems has a significant positive effect on EI.

The path coefficient between perceived internationalisation support and EI is -0.035, which is not statistically significant. H7 is not supported.

Discussion and conclusion

From the results reported above, it can be said that the perceived entrepreneurial capabilities were significant among MBA program students who participated in this study. This observation can be explained as a self-serving bias. They are more confident in their skills and knowledge to find new opportunities and take the risk of growth. Students rated individual capabilities higher than the perceived support system. Similarly, they had shown high entrepreneurial intention. This result is similar to the actor-observer bias (Manimala et al., 2014). Students have shown confidence in the opportunity to discover and organize and manage the resources required for start-up and growth. This result indicated that EI is a perceived behavior that can be practiced and improved with adequate skills and knowledge. An individual's ability to see opportunity and ability to manage resources determine their intention to pursue an entrepreneurial activity.

Most students had agreed that the community promotes family business and encourages creativity and innovativeness. While the community did not promote risk-taking under challenging situations, family members' support was perceived as an essential factor in starting a business. The hypothesis H2 stated as socio-cultural norms has a significantly positive effect on EI formation is not supported which is in line with Liñán and Chen's (2009) finding in the Taiwanese context, and Esfandiar et al.'s (2019) findings in Iran, while the findings are not in line with past research such as Manimala et al. (2014); Rovere, Vilarinhos, and de Souza (2015); Urban (2013); Zhao and Yang (2014). Their results concluded that there is a significant positive relationship between sociocultural norms and EI. Liñán and Chen's (2009) study also showed that sociocultural norms impacted perceived behavior control and personal attitudes towards entrepreneurship intention formation.

The result of hypothesis 3 indicated that students had perceived government support as the least favourable factor in the ecosystem in promoting entrepreneurial intention and hence, entrepreneurial activity in the country. Most of the respondents perceived that taxation policies and other regulations are not favourable to new and growing firms.

Access to finance was poorly rated by the students (mean = 3.55). The study showed that perception of government subsidies for new and growing firms were less favourable, whereas family/friends' role is highlighted more favorably. This might be because there is no sufficient venture capital/angel funding available for new and growing firms. Also, entrepreneurs are not aware of the financial ecosystem which has just started (Botelho, Mason, & Chalvatzis, 2023).

Physical infrastructure support has a significant positive effect on entrepreneurial intention was not supported. This is similar to the findings of Engle, Schlaegel, and Dimitriadi (2011). This result is in contrast with findings of Ahmad and Xavier (2012) in Malaysia; Pereverzeva (2015) in Russia; and Olutuase et al., (2018) in South Africa, that availability of physical infrastructure promotes entrepreneurial intent. This study revealed that physical infrastructure was not perceived as favourable to entrepreneurship development. Most of the respondents believed that they could afford the necessary infrastructure for carrying out entrepreneurship activities, but there is a lack of adequate access to basic infrastructure like electricity, water, transport, and broadband services in Kathmandu valley.

Students showed a highly favourable perception of access to information, education, and training. It might be because they are enrolled in the business program and had taken entrepreneurship-related courses to be aware of the entrepreneurship process. In recent years, many colleges are developing a business incubation center to promote entrepreneurial intention among students. The availability of information, education, and training significantly influences the intent to become an entrepreneur in a positive way.

Interenationalisation support has a significant positive effect on growth intention was not supported. Literature by Arruda et al., (2013), Aljarwan et al. (2019), and Kee et al. (2019), concluded that support for interenationalisation has a positive effect on entrepreneurial activity. The result displayed that students show negative perceptions towards support systems for interenationalisation. The government agencies' support in facilitating new firms' entry into domestic and international markets is very low. There is no easy access to the resources like information, skills, and funding required for interenationalisation.

To summarize, informal support structures were perceived to be more favourable than formal institutional support in the formation of Nepalese MBA graduates' entrepreneurial intention. Development of student capabilities through education and training was perceived to be a significant factor in

development of entrepreneurial intention, among the MBA students who participated in the study. As students move forward towards entrepreneurial action with perceptions of limited resources and hence improvisations to factors supportive of an entrepreneurial ecosystem in their entrepreneurial intention formation, further study is needed to explore their journeys in transforming entrepreneurial intention based on own capability perceptions to action. We also need to be careful of dismissing factors such as formal institutional support since the students considered them insignificant in their intent formation. A comprehensive strategy to provide institutional support to create and maintain an entrepreneurship ecosystem in the Kathmandu Valley is required. Further study is needed to investigate strategies used by young Nepalese entrepreneurs to overcome institutional and sociocultural barriers to success.

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