




Article

# Linking Green and Sustainable Entrepreneurial Intentions and Social Networking Sites; The Mediating Role of Self-Efficacy and Risk Propensity

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**Abstract:** This study investigated the impact of the use of social networking sites on university graduate students' green sustainable entrepreneurial intentions by developing a mediating effect. This study provided a research framework using Ajzen's theory of planned behavior and Shapero's model to illustrate the relationship between self-efficacy and risk propensity towards green and sustainable entrepreneurial intentions. This research model posited a relationship between the use of social networking sites and green and sustainable entrepreneurship intentions with a mediating role of risk propensity and self-efficacy. The structural questionnaire was adopted, validated, and disseminated to the 300 respondents of university students. This study's findings confirmed that there was a significant positive effect of the use of social networking sites on green and sustainable entrepreneurship intentions with the indirect impact of risk propensity and self-efficacy. These substantial outcomes have essential practices and academic implications for representatives, policy makers, and entrepreneurial institutes, such as how to direct the use of such relative niche technologies for communication and the role of the internet to promote green and sustainable entrepreneurial practices among young people.

**Keywords:** social networking sites; risk propensity; self-efficacy; green and sustainable entrepreneurial intention

## 1. Introduction

Human buying patterns have improved because of rapid growth in the human population and the increased use of technology, which now has, directly and indirectly, influenced the well-being of the inhabitants. This intake has resulted in many possible forms of environmental damage, such as climate change, enhanced environmental emissions, and a reduction in flora and fauna [1]. Climate uncertainties have also influenced the quality of services at the systemic and human levels throughout time. For these factors, consumers have become more and more apprehensive about their ecological priorities, investments, and perceptions. The concept of entrepreneurship was first established during the 1700s. The perception of entrepreneurship contains a different dimension of meanings. Traditionally, it was believed that a business was started to gain profits. However, as time

progressed, green entrepreneurship has been linked closely with the green economy. As a priority, companies are trying to pay close attention to ecological and sustainable issues [2]. In an economist's opinion, entrepreneurs are willing to take risks with new investments because they believe they stand a good chance of making a profit. Some other economists believe that entrepreneurship is the quality of developing new goods or processes that fulfill the market's current market requirements [3]. Today, environmental protection across the global economy has contributed to a great deal of interest among researchers. At the same time, green entrepreneurship has also been seen as a solution to social and economic complications [4,5].

Shepherd and Patzelt [6] admitted that green entrepreneurship increases the environment's quality, protects the ecological system, and decreases deforestation. However, university students' green entrepreneurship intentions have rapidly moved toward green entrepreneurship behavior with time. Whether individual-level factors are also influential, green entrepreneurship intentions and contextual considerations, such as green entrepreneurial support provided by the government's educational institutions and institutional possessions, need to be made stronger [7]. Green entrepreneurship has become an essential requirement for developing any economy because it generates job opportunities and many other economic and social benefits for countries and their people [7,8]. Due to this, entrepreneurship has attracted the attention of public policy makers. Entrepreneurship is a critical working of a country's development, and promoting entrepreneurship is one of the significant measures to fast-track economic and community development. It is the process of changing low production funds into more highly productive profits by taking some practice risks [9].

During recent decades, green entrepreneurship has had a significant concentration of investigations conducted equally by scholars and policy makers. The leading cause of this anxiety and importance is the rising need for entrepreneurs. Entrepreneurs must accelerate and boost financial growth by generating and creating new ideas and converting them into gainful ventures. Entrepreneurial behavior not only incubates scientific innovation but also provides employment chances and boosts competitiveness [10]. Due to the digital system's proliferation, social media has become a drastically altered form of information. Social networking sites have turned into an essential means of providing up-to-date information. These channels are relied upon to quickly and professionally provide details regarding disasters and public crises [11]. With the advanced foundation of social media channels, individuals in the media are becoming more concerned with environmental assurance by rapidly providing significant knowledge to the public. Media visibility is a valuable tool for promoting green entrepreneurship intention among young people [12–14].

Pakistan is currently facing many challenges. These challenges are primarily economic. Due to the high unemployment rate in Pakistan, university students cannot find job opportunities in the business market. Few students can receive entrepreneur or business experience. Moreover, they have little sympathy for society. To meet these challenges, entrepreneurship can play an important role. This highlights the need to enhance green entrepreneurial intention through the use of social networking sites to develop self-efficacy and reduce the risk of becoming entrepreneurs. Realizing the significance of entrepreneurship for Pakistan's societal and financial growth, green entrepreneurship is a subject that needs significant concentration from academicians and researchers. The purpose of the research was to analyze the green entrepreneurial intentions based on Ajzen's theory of planned behavior and Shapero's model. Therefore, the study included all these variables in the designed survey conducted to explore these variables' relationships.

The remainder of this article is organized as follows. Section 2 introduces the theoretical background, while Section 3 describes the methodology used to develop the research. Section 4 provides the data analysis, and Section 5 contains the discussions, conclusions and future implications.

## 2. Literature Analysis

Shapero has contributed several essential determinants in the study of entrepreneurial intention [15]. However, we took two main variables from his model to discuss the variables' relationship. Pop, Săplăcan [15] showed that empirical support for the relationship between self-efficacy, risk propensity, and green entrepreneurial intention is evident. Numerous researchers compared Ajzen's theory of planned behavior (TPB) to Shapero's model [16,17]. They argued that there is a strong connection between self-efficacy, risk propensity, and green entrepreneurial intentions. Opening a new business is a deliberate decision that is influenced by one's behavioral intentions. One of the most significant theories for forecasting behavioral intentions is Ajzen's theory of planned behavior [14,18]. This theory indicates the interaction between people and the community context in predicting behavioral intentions [15].

### 2.1. The Role of Use of Social Networking Sites in Emerging Pandemics

Social networking sites offer different tools to obtain and share information with others and contribute to providing social source regarding the risk-related native source of traditional media to get information. Due to the advanced foundation of Web 2.0, the use of social networking sites has developed an essential measure of risk communication during epidemic crises. Social networking sites impartially serve as sources of exchange information and allow users to share real-time information regarding the latest facts during critical situations [19]. The government and private organizations can use social networking sites for proactive emergency management that provides a source of updated information related to current issues during an infectious disease outbreak.

Online social networks play a pivotal role in the promotion an entrepreneur. Accordingly, the online use of social networking sites shape the entrepreneurial ecosystem required to provide knowledge flows without constraints, which could be vital for new ideas and innovation. McQuaid [20] claimed that entrepreneurs have insufficient financial capital and time in the early stage of business development. It is relatively complex for them to access all the resources needed, so the use of social networking sites has emerged as a source to overcome risk. By establishing an appropriate collaboration, the entrepreneur will have immediate access to productive resources and the consumers. Further, Azmitia and Montgomery [21] state that the psychology and sociology literature suggest that various social networks have different impacts on individual behavior in thinking, reasoning, talking, and acting. In recent times, social networking has positively impacted the easy flow of information between people in the academic environment. Recent findings from the literature have further shown that online social (networking) media has gained considerable attention as a significant factor affecting students' academic performance [22].

A study of subjective literature revealed that green entrepreneurship had become a new concept in the field of business [23]. One of the most appropriate applied theories for forecasting green entrepreneurial intentions is Ajzen's theory of planned behavior, an extension of Fishbein, Jaccard's [24] theory of reasoned action by defining intention as 'an individual's willingness to participate in entrepreneurial behavior or his or her commitment towards generating a new venture with a new idea' [16]. Green entrepreneurship is derived with a permutation of two ideas, entrepreneurship and environment, established at the start of 1990s by the researchers, such as [25] and [26]. However, with time, many scholars recognized that there is no consensus on its meaning or item. Gast, Gundolf [27] conducted an efficient literature review and validated many words with various definitions regarding the notion of green entrepreneurship. This concept has also raised some elements such as ecologically sustainable entrepreneurship, sustainable entrepreneurship, and eco-entrepreneurship [23]. For example, it is supposed that green entrepreneurship also develops new and innovative products which address environmental problems [28]. Green entrepreneurship functions for entrepreneurs whose business practices are driven not only by revenue but also by environmental concerns [29]. The research of Schaltegger [30] argued

that a perspective on the environment had been developed and green entrepreneurship's broad scope interacts with the start-up of sustainable products or services.

Green entrepreneurship is a creative, marketplace, and personality-oriented type of value formation that adopts environmental management practices or cleaner production processes, both of which lead to new start-ups relying on or associated with natural resources [31,32]. However, intentions are generally identified as the primary best indicator of planned behavior [16,33]. According to the basic concept of entrepreneurial intentions, researchers refer to the determination to set up a new business venture inspired by the use of social networking sites [34]. Entrepreneurial intentions have been the object of entrepreneurship research, as entrepreneurship is commonly seen as a deliberate behavior [35] and entrepreneurial behaviors are the result of intentions [36,37]. In the past, researchers have used intention-based models to understand the entrepreneurial phenomenon and provided clues as to why individuals engage in entrepreneurial behavior [35]. Due to the extremely recognized power of social networking sites and applications, these website resources are used by many emerging, young entrepreneurs and students to run their new small and large businesses and distribute their messages or test their goods in new markets. Therefore, businesses are using these technologies to grow their companies in many ways, such as online marketing techniques to raise sales and develop their brand. Recent findings from the literature have further shown that online social (networking) media has gained considerable attention as a major factor affecting students' academic performance towards green entrepreneur intentions [32,38].

**Hypothesis 1 (H1).** *There is a significant relationship between use of social networking sites and green and sustainable entrepreneurial intentions among students.*

## 2.2. The Role of Use of Social Networking Sites on Self-Efficacy towards Green and Sustainable Entrepreneurship

Entrepreneurial self-efficacy is one of the variables used to predict entrepreneurial intentions [39,40]. There is a distinction between the locus of control and self-confidence [40]. However, the locus of control is a spiritual factor that can also affect new commercial enterprises [41]. Self-efficacy is the power of the person's actions in various situations that the individual believes in, and refers to one's belief in their ability to accomplish a complicated task [42]. Green entrepreneurship intentions are the individual attractiveness of starting a new ecological business and is highly influenced by self-efficacy and personal capacity perceptions [43].

According to Harrison, Leitch [44], self-efficacy and understanding of personal capability are subsequently influenced by one's social networking sites. Concerning new venture development, self-efficacy is described as a cognitive measure of personal aspects. Dickson, Buck [45] argued that individuals with a high degree of entrepreneurship would be very optimistic about launching a business, and will admire the advantages of running or managing such business. The literature has shown that social networks significantly influence entrepreneurial intentions among young people [46]. The use of social networking sites are very vital to grow entrepreneurial skills, improving learning and interactions with other recognized competitors. Entrepreneurs largely depend on information, knowledge and technologies for continuous growth and acceptability. Entrepreneurs differ by the measurement and type of social community that they can call on to complement their knowledge and information and how they use and boost this network [20]. Social networks can increase the probability of success in various ways at various stages of business growth. The use of social networking sites may also progress the likelihood of success in a range of approaches at an exclusive business improvement stage. Individuals with low self-efficacy tend to be incapable of combatting any challenging situation during uncertain situations. Some previous studies suggested an impact of use of social networking sites on growing and lowering the degree of an individual's self-belief to overcome their social and financial problems. The use of social networking sites is designed to easily customize customers' needs and interests and acquire information according to their demands [47]. Therefore,

people use social networking sites to fulfil their personal needs to articulate self-efficacy towards green entrepreneurship intentions.

**Hypothesis (H2).** *There is a significant relationship between use of social networking sites and self-efficacy among students.*

**Hypothesis (H3).** *Self-efficacy significantly mediates the effect between use of social networking sites and green and sustainable entrepreneurial intentions among the students.*

### 2.3. Risk Propensity

Many research studies have proposed a direct relationship between risk propensity and entrepreneurial intentions. However, the current study explored self-efficacy and risk propensity as mediator towards green entrepreneurship. In other words, people with a higher risk tendency are more likely to choose to undertake a green entrepreneurial venture because they feel more secure that they will execute the roles and perform the tasks required to succeed. In the sense of social networking sites, privacy risk is a significant factor that affects users' social interactions and usage patterns. Social media have become a substantial source of reducing the public's risk perceptions [48]. The use of social networking sites tracks all communications between users for future use in data mining for business and other objectives. The current study has shown that knowledge sharing positively influences business activities, such as the strength of the experience among critical stakeholders and the efficiency of decision making to start a new business [49–51]. Relevant to social media platforms, users' information-sharing activities are essential for organizations and individuals to collect valuable data for analysis and forecasting. This helps entrepreneurs to improve their existing business or start a new business. Many individuals are engaged in use of social networking sites to obtain information to overcome risk and leverage positive responses [52]. Considering the theoretical mechanisms affecting self-efficacy when attempting a green entrepreneurial venture, we expect the risk propensity to have been connected to the individual's judgment of their likely physiological conditions.

Gist and Mitchell [53] argued that persons with a high degree of risk propensity tend to feel more comfortable during the uncertain situations to solve the problem [54]. Thus, they are likely to expect a less crippling uncertainty about an entrepreneurial career, feel a greater sense of control over results, assess the probability of obtaining significant rewards more intensely and have greater self-efficacy. Entrepreneurial education encourages university students' participation in green entrepreneurship, relevant abilities, experience and specific technical innovation [55]. Furthermore, Adekiya and Ibrahim [56] identified culture, job experience, behavioral role models, and personality traits as determinants of intentions [41].

**Hypothesis (H4).** *There is a significant relationship between use of social networking sites and risk propensity among students.*

**Hypothesis (H5).** *Risk propensity significantly mediates the effect between use of social networking sites and green and sustainable entrepreneurship intentions among students.*

### 2.4. Conceptual Framework

Figure 1 illustrates the study framework designed on the basis of literature analysis cited above.



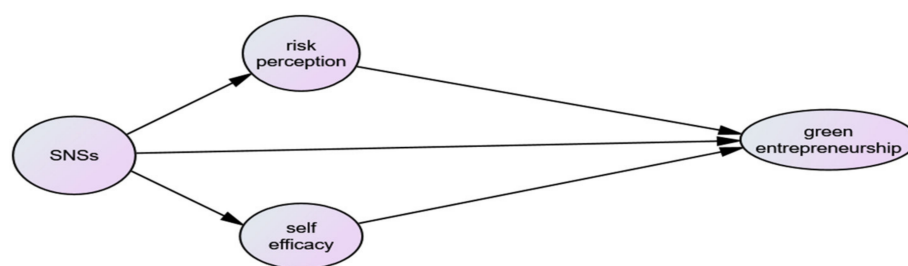


Figure 1. Conceptual framework.

### 3. Methodology

To examine the proposed hypotheses, data were collected through a structured questionnaire. The structured questionnaire consisted of three parts: the first part began with demographic characteristics of the sample, the second part with general items of evaluation use of social networking sites as an independent variable and green entrepreneurship as a dependent variable, and the third part emphasized related items of risk propensity and self-efficacy as mediating variables between the dependent and independent variable. The measures were adopted from previous studies with four primary variables. Social networking sites and self-efficacy was measured based on four items [57,58]. Risk propensity was measured with four items proposed by Gu, Hu [59]. Green entrepreneurship intentions were measured through three items taken from Yi and Journal [60]. The questionnaire targeted all 300 students at different universities of Lahore (Punjab University and Government College University) and Faisalabad (Agriculture University and Government College University). The reason behind the selected universities was their recognition by the higher education commission of Pakistan in the business field.

The data were collected using social networking sites. The questionnaire was posted on different social networking sites and received several responses, but was considered based on the reliability threshold. The survey was conducted in April 2020 to collect data from respondents. This sample size [61] permitted a minimum sample size of 300 for sufficient correct estimation of the  $C\alpha$  coefficient. The respondents in the study were selected through convenience sampling. One of the major advantages of this sampling method was that it helped the researchers meet the required data from a sizeable number of respondents in a comparatively short period [62,63]. Several studies have used and proposed a minimum number of 300 sample sizes to calculate structural equation modeling analysis; therefore, the researcher used a sample of 300 [64–66]. The data were analyzed using SPSS and SPSS (AMOS) statistics software to check the disappeared values, errors, and common method biases in the collected data. It is essential to check the common method variance, as suggested by [67], through any statistical software; therefore, the researchers selected AMOS 24. The researchers used research instrument based on a 5-point Likert scale.

Table 1 shows the demographic profile of students, which indicated that 65.33% were male, and the remaining 34.66% were female. The age of participants was as follows: 80% were between the age of 20 to 30, 15% in between 30 to 40, and the remaining 5% were in between 40 to 50. About 65% of them had a bachelors' level of education, 25% had a master's level and 10% were postgraduate level. We also checked the income status of participants, and most participants had an income of 30,000 Pakistani rupees per month.

**Table 1.** Demographic analysis.

Variable	Category	Frequency	Percentage
Gender	Male	196	65.33
	Female	104	34.66
Age (Years)	20–30	240	80.0
	31–40	45	15.0
	41–50	15	5.0
	Bachelors	195	65.0
Qualification	Masters	75	25.0
	Postgraduates	30	10
	1–10,000	36	12.0
Income	10,000–20,000	15	5.0
	20,000–30,000	75	25.0
	30,000–above	174	58.0

#### 4. Data Analysis

In the preliminary stage, the researcher used SPSS statistical software to classify disappeared values, errors, and common method biases in the collected data. Data were collected through single source, so it was necessary to check the common method variance, as suggested by [67]. The single factor test findings indicated that the initial factor has 22.52% of the variance, which is lower than 50% according to the threshold of [67]. Therefore, there is no issue of common method bias in this research. To evaluate the measurement model, the researcher tested discriminant validity and convergent validity. According to [68], convergent validity is determined via factor loading, composite reliability (CR), and average variance extracted (AVE). According to results in Table 2, the factor loading of all items is greater than 0.65, the values of CR of all items is above 0.878 and the value of AVE of all constructs is higher than 0.643. Thus, the convergent validity of each item is satisfactory.

**Table 2.** Reliability and validity.

Construct	Mean	SD	Items	Factor Loading	AVE	CR	Ca
Social networking sites	4.06	0.796	SN1	0.76	0.735	0.927	0.927
			SN2	0.72			
			SN3	0.65			
			SN4	0.67			
Risk Perception	4.029	0.831	RK1	0.95	0.735	0.917	0.916
			RK2	0.76			
			RK3	0.70			
			RK4	0.83			
Self-efficacy	4.055	0.743	SF1	0.87	0.643	0.878	0.873
			SF2	0.85			
			SF3	0.70			
			SF4	0.81			
Green and Sustainable Entrepreneurship	4.071	0.793	GET1	0.71	0.736	0.893	0.892
			GET2	0.78			
			GET3	0.81			

This study also tested measurement model reliability. The reliability results illustrate that each construct's value ranges from 0.873 to 0.927, which proves good internal consistency. Table 3 shows the correlation among the studied variables; correlation is defined as the level of association among studied variables. The correlations between all the studied variables were found to be significant at  $p$  value  $< 0.05$  and 0.01% level of significance correspondingly [69].

**Table 3.** Numerical relationship.

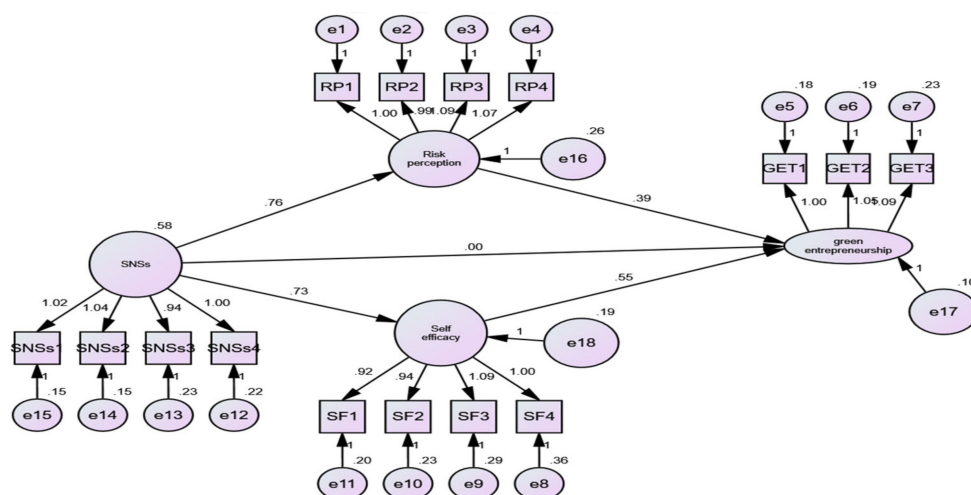
	1	2	3	4
Self-Efficacy	0.806			
Social Networking Sites	0.752	0.872		
Risk Propensity	0.765	0.728	0.858	
Green Entrepreneurship	0.691	0.664	0.646	0.738

*Structural Equation Model*

Table 4 and Figure 2 explain the relationships between all the exogenous and endogenous variables. This analytical and empirical research used structural equation modeling [70] to examine social networking sites' influence on green entrepreneurship, mediated by risk propensity and self-efficacy. This study used statistical software (SPSS 20 and the AMOS 24) to statistically estimate the hypothesized relationships. All results were in the acceptable threshold range. First, confirmatory factor analysis (CFA) was significant and used to validate a measurement base theory using total model fit and other construct reliability and validity of the data. Second, the dynamic model considered measurement data and investigated the structural interactions between the four structures [71]. CFA was used to see how well these 15 variables represented the five constructs using maximum likelihood evaluation. The overall model ( $\chi^2 = 329.471$ ,  $df = 193$ ,  $CMIN/DF = 1.707$ ) is significant at  $p < 0.001$ , suggesting the model was acceptable. Although these values are very dependent on sample size, it is often a good idea to use these for moderate samples [72]. Many other measures of model fit were used to validate the results due to the test scale of 300 and the wide range of responses. Both CFI and RMSEA have commonly used indices of model fit [73]. The value of CFI 0.900 surpassed the suggested threshold of 0.9, and the RMSEA value of 0.049 was lower than the value of 0.08, indicating a good model fit [73].

**Table 4.** Multiple Regression.

			Estimate	S.E.	t-Value	p-Value	Decision
Risk Propensity	<—	Social networking sites	0.752	0.059	12.886	***	Supported
Self-Efficacy	<—	Social networking sites	0.785	0.059	12.251	***	Supported
Green and Sustainable Entrepreneurship	<—	risk propensity	0.426	0.059	6.497	***	Supported
Green and Sustainable Entrepreneurship	<—	self-efficacy	0.562	0.078	7.120	***	Supported
Green and Sustainable Entrepreneurship	<—	Social networking sites	0.005	0.080	0.053	0.958	Not Supported

**Figure 2.** Mediating relationships.



Furthermore, the hypothesized model has a good fit with the data attained. Construct reliability was used to test internal consistency (CR). The results in Table 4 shows that both of the CR exceed the threshold value of 0.7 [71], showing high reliability.

The structure equation modeling was assessed through standard beta, and the standard model  $R^2$   $p$ -value and  $t$ -value through SPSS (AMOS) with the bootstrapping process with a resample of 2000 were tested, linking the model's goodness of fit used in the research. This study discussed five hypotheses. According to the statistical results in Table 4, four hypotheses were found to be supported, while one hypothesis was not supported. The resulting values were: H1 with  $\beta = 0.005$  and  $p < 0.01$ , H2 with  $\beta = 0.785$  and  $p < 0.01$ , H3 with  $\beta = 0.562$  and  $p < 0.01$ , H4 with  $\beta = 0.752$  and  $p < 0.01$  and H5 with  $\beta = 0.426$  and  $p < 0.01$ . Therefore, H2, H3, H4 and H5 were supported, while H1 was not supported. In mediation, both hypotheses H3 and H4 showed the indirect effect between the social networking sites and green entrepreneurship intentions. Therefore, the current study tested the indirect effects between the variables by the bootstrap test with a 95% confidence interval with 5000 bootstrap samples. The results obtained were positive and significant, so a full mediation exists between use of social networking sites and green entrepreneurship intentions.

## 5. Discussion and Conclusions

### 5.1. Discussions

Considering the improvement of the green wave in Pakistan, our key objective was to investigate four concepts: social networking sites, green entrepreneurship intentions, risk propensity, and self-efficacy. In this research, we aimed to check how the emergence of new social networking sites as a medium for green entrepreneurship education and other services (such as financial and retail sector resources) implies that social networking sites serve as a modern systemic channel for resources to support new business practices. The contributions of the empirical study based on statistical outcomes are as follows. Firstly, the study explored the direct relationship between the dependent variable (social networking sites) and the independent variable (green entrepreneurship intentions). According to the results, there is an insignificant relationship between these two variables, confirming that use of social networking sites do not directly enhance university students' interaction on green entrepreneurship intentions, but a significant effect was found with self-efficacy and risk propensity [57]. As a result, the intensity at which they use social networking sites helps them to observe their role models, which may boost their self-efficacy and encourage them to participate in similar actions. This argument was introduced on the basis that social networking allows consumers to interact not just with individuals from their offline social networks, but also with people when they look up to—i.e., their role models. Students should generate their self-concept in this way by observing and interacting with them. As a result, the theory serves as the basis for the next one, as their possible impact is dependent on the students through risk propensity. According to results, social networking sites have also a significant direct relation with risk propensity, confirming that people with a higher risk tendency are more likely to choose to undertake a green entrepreneurial venture because they feel more secure to execute the roles and perform the tasks required to succeed [59]. Secondly, mediating variables (risk propensity and self-efficacy) have a significant positive effect on green entrepreneurship intentions, confirming that use of social networking sites plays a significant role in enhancing student interactions in green entrepreneurship intentions by increasing the risk propensity and self-efficacy [59]. The study results anticipated that university students in Pakistan showed their positive interaction and appreciation about the green businesses, which tends to the green entrepreneurship intentions.

## Implications

Moreover, the findings suggest that the university students retain high interest in green theory if they engage themselves in the entrepreneurship assumptions. Therefore, the self-efficacy and risk propensity increased the desirability towards green entrepreneurship intentions among them. Conceivably, due to current climate and environmental changes, students see the green entrepreneurship business as more enjoyable, safe, joyful, and impactful. Furthermore, university students should also trust that the green entrepreneurship business is realistic in current social, economic, and environmental perspective and settings. The government and private institutes in Pakistan are required to spread the green tendency among potential future entrepreneurs. The government and civil society need to work combinedly on green entrepreneurial intentions to make it viable through the availability of required expertise.

## 5.2. Conclusions

The growing commitment to sustainable principles has raised the need for new green products and services, though the interest in the green entrepreneurship profession is still low. Nowadays, entrepreneurs are much more conscious of setting up businesses which are economically profitable and have social linkages while ensuring that the running of the businesses does not have a negative impact on the environment, and these two criteria are only fulfilled by green entrepreneurial businesses. Self-efficacy behavior influences work in green entrepreneurial fields, whereas people are not familiar with feasible green businesses due to the lack of suitable opportunities and trainings. Similarly, awareness through social networking sites encourages people to enter green businesses. Self-efficacy and risk propensity are the two factors that influence green entrepreneurial intentions and results in green entrepreneurial behavior among people. Green entrepreneurship is a widespread subject nowadays. The research on green entrepreneurship and the related areas can be supportive for both theory and practice. Therefore, universities can open green entrepreneurship taught or research programs or courses. The research findings can be helpful for the green sectors and interrelated organizations. Green entrepreneurship is a popular profession which is acceptable throughout the world. The research findings and results can encourage people in this profession.

## Limitations

This paper's outcome has certain limitations; for instance, a generalization of the results must be considered with specific cautions due to the limited number of respondents. The presented study is a preliminary study on green entrepreneurship to test the most important factors affecting it, which was represented in the model. Therefore, future research can investigate other factors that may have an impact on green entrepreneurship. Specifically, the shortage of environmental awareness among entrepreneurs, public policy, and strategies in the country can be considered. Besides, the role of green education, in other words, the factors mentioned earlier, needs to be highlighted, based on the findings it is suggested to raise the level of environmental awareness among entrepreneurs through the involvement of the media and educational institutions. Prioritizing financing environmentally friendly projects at the national level and creating financial funds to support research in the development of sustainable and environmentally friendly technologies is required, as it limits such initiatives.

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## References

- Chen, T.B.; Chai, L.T. Attitude towards the environment and green products: Consumers' perspective. *Manag. Sci. Eng.* **2010**, *4*, 27–39.
- Sahay, A.; Sharma, V. *Entrepreneurship and New Venture Creation*; Excel Books: New Dehli, India, 2008.
- Hall, J.K.; Daneke, G.A.; Lenox, M.J. Sustainable development and entrepreneurship: Past contributions and future directions. *J. Bus. Ventur.* **2010**, *25*, 439–448. [\[CrossRef\]](#)
- Demirel, P.; Li, Q.C.; Rentocchini, F.; Tamvada, J.P. Born to be green: New insights into the economics and management of green entrepreneurship. *Small Bus. Econ.* **2019**, *52*, 759–771. [\[CrossRef\]](#)
- Shepherd, D.A.; Patzelt, H. The new field of sustainable entrepreneurship: Studying entrepreneurial action linking “what is to be sustained” with “what is to be developed”. *Entrep. Theory Pract.* **2011**, *35*, 137–163. [\[CrossRef\]](#)
- Bogatyreva, K.; Edelman, L.F.; Manolova, T.S.; Osiyevskyy, O.; Shirokova, G. When do entrepreneurial intentions lead to actions? The role of national culture. *J. Bus. Res.* **2019**, *96*, 309–321. [\[CrossRef\]](#)
- Nuringsih, K.; Puspitowati, I. Determinants of eco entrepreneurial intention among students: Study in the entrepreneurial education practices. *Adv. Sci. Lett.* **2017**, *23*, 7281–7284. [\[CrossRef\]](#)
- Fatoki, O.O. Graduate entrepreneurial intention in South Africa: Motivations and obstacles. *Int. J. Bus. Manag.* **2010**, *5*, 87.
- Ebrahimi, P.; Mirbargkar, S.M. Green entrepreneurship and green innovation for SME development in market turbulence. *Eurasian Bus. Rev.* **2017**, *7*, 203–228. [\[CrossRef\]](#)
- Schultz, F.; Utz, S.; Göritz, A. Is the medium the message? Perceptions of and reactions to crisis communication via twitter, blogs and traditional media. *Public Relat. Rev.* **2011**, *37*, 20–27. [\[CrossRef\]](#)
- Soomro, R.B.; Mirani, I.A.; Ali, M.S.; Marvi, S. Exploring the green purchasing behavior of young generation in Pakistan: Opportunities for green entrepreneurship. *Asia Pac. J. Innov. Entrep.* **2020**. [\[CrossRef\]](#)
- Singh, S.K.; Del Giudice, M.; Tarba, S.Y.; De Bernardi, P. Top management team shared leadership, market-oriented culture, innovation capability, and firm performance. *IEEE Trans. Eng. Manag.* **2019**. [\[CrossRef\]](#)
- Singh, S.K.; Chen, J.; Del Giudice, M.; El-Kassar, A.N. Environmental ethics, environmental performance, and competitive advantage: Role of environmental training. *Technol. Forecast. Soc. Chang.* **2019**, *146*, 203–211. [\[CrossRef\]](#)
- Himel, T.H.; Muniandy, S.; Rahman, A.J. The relationship between selfefficacy, feasibility and awareness towards green entrepreneurial intention. *Sci. Int.* **2016**, *28*, 2095–2103.
- Krueger, N.F., Jr.; Reilly, M.D.; Carsrud, A.L. Competing models of entrepreneurial intentions. *J. Bus. Ventur.* **2000**, *15*, 411–432. [\[CrossRef\]](#)
- Singh, S.K.; Del Giudice, M.; Chierici, R.; Graziano, D. Green innovation and environmental performance: The role of green transformational leadership and green human resource management. *Technol. Forecast. Soc. Chang.* **2020**, *150*, 119762. [\[CrossRef\]](#)
- Ajzen, I. The theory of planned behavior. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 179–211. [\[CrossRef\]](#)
- Ding, H.; Zhang, J. Social media and participatory risk communication during the H1N1 flu epidemic: A comparative study of the United States and China. *China Media Res.* **2010**, *6*, 80–91.
- McQuaid, R.W. *The Entrepreneur in Economic Theory*; Edward Elgar: Cheltenham, UK, 2011.
- Azmitia, M.; Montgomery, R. Friendship, transactive dialogues, and the development of scientific reasoning. *Soc. Dev.* **1993**, *2*, 202–221. [\[CrossRef\]](#)
- Adebiyi, S.O.; Oyatoye, E.O.; Mojekwu, J.N. Predicting customer churn and retention rates in Nigeria's mobile telecommunication industry using Markov chain modelling. *Acta Univ. Sapientiae Econ. Bus.* **2015**, *3*, 67–80. [\[CrossRef\]](#)
- Burzyńska, D.; Jabłońska, M.; Dziuba, R. Opportunities and conditions for the development of green entrepreneurship in the polish textile sector. *Fibres Text.* **2018**. [\[CrossRef\]](#)
- Fishbein, M.; Ajzen, I. *Belief, Attitude, Intention and Behavior: An Introduction to Theory and Research*; Addison-Wesley: Reading, MA, USA; London, UK, 1975.
- Blue, R.J. *Ecopreneuring: Managing for Results*; Scott Foresman: London, UK; Northbrook, IL, USA, 1990.
- Schaper, M. The essence of ecopreneurship. *Greener Manag. Int.* **2002**, *38*, 26–30. [\[CrossRef\]](#)
- Gast, J.; Gundolf, K.; Cesinger, B. Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. *J. Clean. Prod.* **2017**, *147*, 44–56. [\[CrossRef\]](#)
- Jolink, A.; Niesten, E. Sustainable development and business models of entrepreneurs in the organic food industry. *Bus. Strategy Environ.* **2015**, *24*, 386–401. [\[CrossRef\]](#)
- Schaltegger, S. A framework for ecopreneurship. *Greener Manag. Int.* **2002**, *38*, 45–58. [\[CrossRef\]](#)

29. Domańska, A.; Żukowska, B.; Zajkowski, R. Green entrepreneurship as a connector among social, environmental and economic pillars of sustainable development. Why some countries are more agile? *Probl. Ekorozw.* **2018**, *13*, 67–76.
30. Bae, T.J.; Qian, S.; Miao, C.; Fiet, J.O. The relationship between entrepreneurship education and entrepreneurial intentions: A meta-analytic review. *Entrep. Theory Pract.* **2014**, *38*, 217–254. [[CrossRef](#)]
31. Krueger, N.F.; Carsrud, A.L. Entrepreneurial intentions: Applying the theory of planned behaviour. *Entrep. Reg. Dev.* **1993**, *5*, 315–330. [[CrossRef](#)]
32. Liñán, F.; Fayolle, A. A systematic literature review on entrepreneurial intentions: Citation, thematic analyses, and research agenda. *Int. Entrep. Manag. J.* **2015**, *11*, 907–933. [[CrossRef](#)]
33. Fayolle, A.; Liñán, F.; Moriano, J.A. Beyond entrepreneurial intentions: Values and motivations in entrepreneurship. *Int. Entrep. Manag. J.* **2014**, *10*, 679–689. [[CrossRef](#)]
34. Van Gelderen, M.; Kautonen, T.; Fink, M. From entrepreneurial intentions to actions: Self-control and action-related doubt, fear, and aversion. *J. Bus. Ventur.* **2015**, *30*, 655–673. [[CrossRef](#)]
35. Abosede, J.A.; Fayose, J.; Eze, B.U. Corporate entrepreneurship and international performance of Nigerian banks. *J. Econ. Manag.* **2018**, *32*, 5–17. [[CrossRef](#)]
36. Ajzen, I. Perceived behavioral control, self-efficacy, locus of control, and the theory of planned behavior. *J. Appl. Soc. Psychol.* **2002**, *32*, 665–683. [[CrossRef](#)]
37. Wilson, F.; Kickul, J.; Marlino, D. Gender, entrepreneurial self-efficacy, and entrepreneurial career intentions: Implications for entrepreneurship education. *Entrep. Theory Pract.* **2007**, *31*, 387–406. [[CrossRef](#)]
38. Bhaskar, A.U.; Garimella, S. A study of predictors of entrepreneurial intentions: Development of comprehensive measures. *Glob. Bus. Rev.* **2017**, *18*, 629–651. [[CrossRef](#)]
39. Bandura, A. Perceived self-efficacy in the exercise of control over AIDS infection. *Eval. Program Plan.* **1990**, *13*, 9–17. [[CrossRef](#)]
40. Gorondutse, A.H.; Salimon, M.G.; Nafi, S.N.B.M.; Salehuddin, M.R.B.; Ibrahim, Y.S.; Ango, Y.U.I.; Tabari, U.I. Green Entrepreneurial Practices Among SMEs in Malaysia and Nigeria. *Int. J. Sup. Chain. Mgt* **2020**, *9*, 464.
41. Harrison, R.T.; Leitch, C.M. Entrepreneurship and leadership: The implications for education and development. *Entrep. Reg. Dev.* **1994**, *6*, 111–125. [[CrossRef](#)]
42. Dickson, V.V.; Buck, H.; Riegel, B. Multiple comorbid conditions challenge heart failure self-care by decreasing self-efficacy. *Nurs. Res.* **2013**, *62*, 2–9. [[CrossRef](#)] [[PubMed](#)]
43. Welpe, I.; Dowling, M. Venture-Capital-Finanzierung aus Sicht der Portfoliounternehmen. In *Entrepreneurial Finance*; Springer: Berlin, Germany, 2005; pp. 277–299.
44. Lin, K.-Y.; Lu, H.-P. Why people use social networking sites: An empirical study integrating network externalities and motivation theory. *Comput. Hum. Behav.* **2011**, *27*, 1152–1161. [[CrossRef](#)]
45. Snyder, L.B.; Rouse, R.A. The media can have more than an impersonal impact: The case of AIDS risk perceptions and behavior. *Health Commun.* **1995**, *7*, 125–145. [[CrossRef](#)]
46. Miranda, S.M.; Saunders, C.S. The social construction of meaning: An alternative perspective on information sharing. *Inf. Syst. Res.* **2003**, *14*, 87–106. [[CrossRef](#)]
47. Lee, J.N.; Kim, Y.G. Effect of partnership quality on IS outsourcing success: Conceptual framework and empirical validation. *J. Manag. Inf. Syst.* **1999**, *15*, 29–61. [[CrossRef](#)]
48. Hajli, M.N. The role of social support on relationship quality and social commerce. *Technol. Forecast. Soc. Chang.* **2014**, *87*, 17–27. [[CrossRef](#)]
49. Ebrahimi, P.; Ahmadi, M.; Gholampour, A.; Alipour, H. CRM performance and development of media entrepreneurship in digital, social media and mobile commerce. *Int. J. Emerg. Mark.* **2019**, *16*, 25–50.
50. Gist, M.E.; Mitchell, T.R. Self-efficacy: A theoretical analysis of its determinants and malleability. *Acad. Manag. Rev.* **1992**, *17*, 183–211. [[CrossRef](#)]
51. Sitkin, S.B.; Weingart, L.R. Determinants of risky decision-making behavior: A test of the mediating role of risk perceptions and propensity. *Acad. Manag. J.* **1995**, *38*, 1573–1592.
52. Dutta, S.; Parahoo, S.K.; Afzal, M.N.I.; Harvey, H.L. A conceptual understanding of entrepreneurial motivation, employment creation, and supporting factors on micro-, meso- and macro-level entrepreneurship. *World Rev. Entrep. Manag. Sustain. Dev.* **2021**, *17*, 56–76.
53. Adekiya, A.A.; Ibrahim, F. Entrepreneurship intention among students. The antecedent role of culture and entrepreneurship training and development. *Int. J. Manag. Educ.* **2016**, *14*, 116–132. [[CrossRef](#)]
54. Stoyanova, K. Exploring the Link between Social Media and Graduate Entrepreneurship: A Study on Social Media's Influence on Last-Year Undergraduate Students' Self-Efficacy with Regards to Their Entrepreneurial Intentions. Bachelor's Thesis, Jönköping University, Jönköping, Sweden, 2017.
55. Alayis, M.M.; Abdelwahed, N.A.; Atteya, N. Impact of Social Networking Sites' use on Entrepreneurial Intention Among Undergraduate Business Students: The Case of Saudi Arabia. *Int. J. Entrep.* **2018**, *22*, 1–18.
56. Gu, J.; Hu, L.; Wu, J.; Lado, A.A. Risk propensity, self-regulation, and entrepreneurial intention: Empirical evidence from China. *Curr. Psychol.* **2018**, *37*, 648–660. [[CrossRef](#)]
57. Yi, G. From green entrepreneurial intentions to green entrepreneurial behaviors: The role of university entrepreneurial support and external institutional support. *Int. Entrep. Manag. J.* **2020**, *17*, 963–979. [[CrossRef](#)]

58. Nunnally, J.C. *Psychometric Theory*, 3rd ed.; McGraw Hill Education: New York, NY, USA, 1994.
59. Ahmad, H.; Halim, H. Determining sample size for research activities. *Selangor Bus. Rev.* **2017**, *2*, 20–34.
60. Nazir, M.; Tian, J.; Hussain, I.; Arshad, A.; Shad, M.A. Examining the Relationship of Online Social Networking Sites' Activities, Customers' Brand Choice, and Brand Perception in Health-Related Businesses. *Front. Psychol.* **2020**, *11*, 2755. [[CrossRef](#)] [[PubMed](#)]
61. Krejcie, R.V.; Morgan, D.W. Determining sample size for research activities. *Educ. Psychol. Meas.* **1970**, *30*, 607–610. [[CrossRef](#)]
62. Suki, N.M. Green product purchase intention: Impact of green brands, attitude, and knowledge. *Br. Food J.* **2016**, *118*, 2893–2910. [[CrossRef](#)]
63. Comrey, A.L.; Lee, H.B. *A First Course in Factor Analysis*, 2nd ed.; Erlbaum Associates: Hillsdale, NJ, USA, 1992.
64. Podsakoff, P.M.; MacKenzie, S.B.; Lee, J.Y.; Podsakoff, N.P. Common method biases in behavioral research: A critical review of the literature and recommended remedies. *J. Appl. Psychol.* **2003**, *88*, 879. [[CrossRef](#)] [[PubMed](#)]
65. Febrian, A.C.; Ferdinand, A.T. Market Orientation, Innovation Capability and Technological Capability on Business Performance: A Study of Smes in East Kalimantan Province, Indonesia. In Proceedings of the 2017 International Conference on Management Sciences (ICoMS 2017), UMY, Bantul, Indonesia, 22 March 2017.
66. Fornell, C.; Larcker, D.F. Evaluating structural equation models with unobservable variables and measurement error. *J. Mark. Res.* **1981**, *18*, 39–50. [[CrossRef](#)]
67. Wandiga, E.N.; Kilika, J.M.; James, R. Linking Operations Strategies with Customer Based Competence and Firm Performance in the Context of Knowledge Based Intensive Sector: A Theoretical Review. *Int. J. Bus. Manag.* **2017**, *12*, 234–248. [[CrossRef](#)]
68. Hair, J.F., Jr.; Babin, B.J.; Anderson, R.E. *Multivariate Data Analysis: A Global Perspective*; Person Education: New Jersey, NJ, USA, 2010.
69. Hu, L.T.; Bentler, P.M. Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Struct. Equ. Modeling Multidiscip. J.* **1999**, *6*, 1–55. [[CrossRef](#)]
70. Kline, R.B. *Convergence of Structural Equation Modeling and Multilevel Modeling*; SAGE Publications: New York, NY, USA, 2011.
71. Ajjan, H.; Fabian, F.; Tomczyk, D.; Hattab, H. Social media use to support entrepreneurship in the face of disruption. *J. Dev. Entrep.* **2015**, *20*, 1550014. [[CrossRef](#)]
72. Hoang, G.; Le, T.T.T.; Tran, A.K.T.; Du, T. Entrepreneurship education and entrepreneurial intentions of university students in Vietnam: The mediating roles of self-efficacy and learning orientation. *Educ. Train.* **2020**. [[CrossRef](#)]
73. Michaelis, T.L.; Carr, J.C.; Scheaf, D.J.; Pollack, J.M. The frugal entrepreneur: A self-regulatory perspective of resourceful entrepreneurial behavior. *J. Bus. Venturing* **2020**, *35*, 105969. [[CrossRef](#)]