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KEYWORDS	ABSTRACT
Attitude, Ecopreneurship, Subjective Norms, Self-Efficacy & Theory of Planned Behaviour	SME sector, particularly manufacturing SME's, must recognize importance of economic sustainability and seek out routes that support for sustainability, like ecopreneurship. This study explores ecopreneurship adoption intentions while expanding the theory of planned behaviour model by incorporating moderating effect of collectivism. The population of research is comprised of Pakistani manufacturing SMEs. Study's sample includes of manufacturing SMEs operating in Lahore region. Employees of SMEs were surveyed to obtain data. The results suggested that attitude to ecopreneurship, subjective norms and self-efficacy are primary drivers of ecopreneurship. Further, outcomes revealed that collectivism has moderating effect amid observed variables. Also, relevance of three-way interactions for attitude, subjective norms, and self-efficacy with collectivism has shown moderating effect of collectivism. Environmentally responsible firms SME's generate greater possibilities since many successful businesses are ecologically aware and continually seek the economic benefits by being green. The research is thus restricted to Pakistani manufacturing SMEs.
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INTRODUCTION

In a society that is struggling to achieve social and economic progress while also making efficient use of natural resources and minimizing pollution at same time, ecopreneurship is new area of study that is gaining popularity (Puspitasari & Hidayat, 2022). The globe is being confronted with large number of difficulties and many are social, economic, and environmental in nature. These issues are made even more complicated by the fact that there is no relationship between care for well-being of society, concern for the economy, and awareness of the environment. As a result, ecopreneurship

is a system that successfully addresses all three of these issues (Suryaningsih & Aripin, 2022). Thus, ecopreneurship is concept that aims to assist and encourage growth of environmentally sustainable enterprises. The conventional approaches to running a corporation were primarily motivated by a desire to maximize profit with little regard for the natural environment (Pasha, Kamran, Chishti & Ali, 2022). Thus, the terms "eco-entrepreneurship" (sometimes spelled "ecopreneurship") and "green entrepreneurship" (spelled "green entrepreneurship") are used interchangeably, and their meanings are quite similar.

The difference between entrepreneurship and ecopreneurship is that former tries to make money while the latter seeks to make money while also promoting environmental sustainability (Gunawan, Essers & Riel, 2021). Galkina (2021) proposed the idea that economic growth might be facilitated by the innovations that are brought about by entrepreneurial activity. The accumulation of data in natural environment over the course of last several decades has led researchers to conclusion that economic development and protection of the natural world are incompatible goals. The depletion of biodiversity, the escalation of pollution levels, progression of climate change, and deterioration of land quality are only a few instances of this. There is need for environmentally responsible business practises, often known as the ecopreneurship, as a result of all these environmental problems (Afum, Mensah, Baah, Acquah & Osei, 2023). There is a substantial body of data, both in industrialized and developing nations, about the need to preserve environment and to launch entrepreneurial endeavor with the goal of preserving deteriorating natural environment. According to Tibon (2021) research led by entrepreneurship is a factor that contributes to growth of economy and the creation of job opportunities.

Increasing economic activity while conserving the environment is a critical problem, especially in the context of developing nations, where the practice of entrepreneurship is considered as a method to spark economic growth and to address severe economic and social difficulties. The problem of how to encourage environmentally friendly enterprises is one that will never be solved. Because of this, it is imperative that the elements that impact the adoption of eco-entrepreneurship for future choices that are sustainable be brought to light. In the recent years, there has been a focus on the correlation amid economic development and environmentally aware business practices (Gunawan & Rudito, 2023), and there is a generally favorable attitude toward the implementation of such business practices. The major objective is to drive beneficial investing habits and to change views and attitudes in positive direction. This concept originates from realization that social constructions, namely collectivism, play significant part in promoting start-up goals in relation to environmental businesses and organizations. Consequently, the formation of intentions with respect to the adoption of the environmentally conscious business practices is heavily influenced by the cultural influences (Elyta & Zhan, 2021).

Thus, the present research took collectivism into account as one of the moderators in the process of defining the adoption of eco-entrepreneurship as a method of the sustainability. The vast body of literature on business, the environment, and corporate responsibility gave rise to the field of ecology and sustainability entrepreneurship as scholars sought answers to questions such as how changes in business practises affect other aspects of business, including social and environmental practises. The

depletion of biodiversity, the escalation of pollution levels, the progression of climate change, and the deterioration of land quality are only few instances of this. Literature on organizational studies and sustainable development has intersected with research subject of sustainable entrepreneurship which has resulted in the birth of the new field of study known as the sustainability enterprise. The conventional approaches to running a corporation were primarily motivated by desire to maximize profit with little regard for the natural environment. In this connection, the concept of collectivism, which was developed from the idea of social learning, has potential to influence people's intentions to embrace environmentally friendly or sustainable habits. This study contributes significantly to the current body of knowledge about the crucial elements that encourage people to participate in the ecopreneurship.

LITERATURE REVIEW

Theory of Planned Behavior & Ecopreneurship Intentions

According to [Strydom, Meyer and Synodinos \(2021\)](#), beginning new company cannot be unplanned occurrence; rather, it calls for extensive forward planning and constructive intents toward the new firm, making it behaviour that is more consistent with planning. Theory of planned behaviour (TPB), which is an extension of theory of reasoned action (TRA) has been widely used by a large number of researchers, not only in social psychology but in for purpose of predicting behavioural intentions in general, and environmental conscious behavioral intentions in particular. Great number of scholars have made use of TPB theoretical underpinning in their investigations of pro environmental behavior. Some of these studies integrated previous research or expanded on the paradigm offered by TPB ([Bouarar, Mouloudj, Makhoulf & Mouloudj, 2022](#); [Romero & Rodríguez, 2022](#)). Despite the fact that TPB is generally helpful, number of research have attempted to enhance explanatory power of this theory by including other variables inside TPB model. It is generally agreed that intentions are crucial component to examine when trying to explain observed behavior. Strong purpose to carry out certain behavior is factor that effects likelihood of actually carrying out that behavior ([Peng, Li, Zhou & Sadowski, 2021](#)). TPB is able to explain in convincing way how good behavioral intentions translate into real behavior.

In order to explain the green behavioural intents, the model of the theory of planned behaviour has been used on several occasions by a great number of scholars ([Saleem, Adeel, Ali & Hyder, 2018](#)). In current body of research, behavioural intentions are defined and measured in a variety of ways; nonetheless, researchers are generally in agreement that behavioural intentions are preparedness or propensity to engage in a certain behaviour. It is impossible to deny that TPB-based research has several theoretical benefits when applied to the field of entrepreneurship ([Romero-Colmenares & Reyes-Rodríguez, 2022](#)). TPB model has been used on number of occasions by several researchers on entrepreneurship for purpose of identifying entrepreneurial intents; nevertheless, its capacity to explain the desire to engage in sustainable entrepreneurship has not been thoroughly investigated ([Bouarar et al., 2022](#)). Many researches in this field have discovered the considerable beneficial influence of attitudes on entrepreneurial intentions. Attitudes are seen to be an essential driver of new venture intentions. In this connection, in a similar vein, attitudes have been demonstrated to be a predictor of people's intentions to engage in environmentally conscious activity. Consequently, the

adoption of environmentally sustainable practises is impacted by people' attitudes, whether they be good or negative.

Subjective norms, often known as the pressures exerted on an individual by powerful individuals, have been shown to be a predictor of long-term behavioural intentions (Mfazi & Elliott, 2022). In a similar vein, Setyanti and Sudarsih (2022) found that environmental activities of business owners are a direct outcome of the social pressures they face. Researchers in the fields of behaviorism and psychology have come to the same conclusions regarding the various concepts that have an effect on the processing capabilities for the purpose of completing tasks or finding solutions to problems. They have also found the connection between self-efficacy and motivation to behavioural change. Researchers have associated self-efficacy with a variety of the different categories, including things like accomplishments, emotional problems, mental and physical health, choosing a job, and more (Maheshwari & Kha, 2022). It is important to point out that idea of self-efficacy is also applicable to the preservation of resources and the adoption of pro environmental behaviours, despite the fact that research on these topics is limited. Individuals are unable to make a constructive contribution to the protection of environment unless they have faith in possibility of improved environmental management. As a result, on the basis of the aforementioned literature and its support, the following hypotheses are proposed:

H1: Attitude toward ecopreneurship has positive effect on ecopreneurship intentions.

H2: Subjective norms has a positive effect on ecopreneurship intentions.

H3: Self-efficacy has a positive effect on ecopreneurship intentions.

Ecopreneurship & Collectivism

Individualistic individuals are likely to be autonomous, self-sufficient, to exercise their freedom of choice, and to experience intense interpersonal competitiveness (Castillo et al., 2023). People with collectivist attitudes, on the other hand, are more likely to be interdependent, work to preserve in-group harmony, place value on social hierarchies, engage in cooperative behavior, and experience less rivalry. This value orientation has been researched on different scales: at the aggregate level to detect differences across cultures, and at the individual level to identify variations in the value orientation of individuals within a culture. It has been shown that a person's value orientation may have an effect on a broad range of their social behavior. The level of motivation that an individual displays for participating in certain behaviors depends on whether that person is more inclined toward individualism or collectivism (Liu et al., 2022). In this linking, people who have a tendency toward collectivism have the positive pro-environmental attitudes, whereas the individuals whose orientation is more individualistic view pro-environmental behavior as having less importance and are, as a result, less likely to participate in certain activities that are environmentally friendly (Brío González et al., 2022).

According to Laroche et al. (2001), those who have a collectivist worldview are more likely to have a positive relationship with natural world. Kim and Choi (2005) both came to the same conclusions about ecological commitment and green purchasing behaviour, respectively. On the other hand, there is a paucity of information about the possible impacts of the collectivism or individualism on

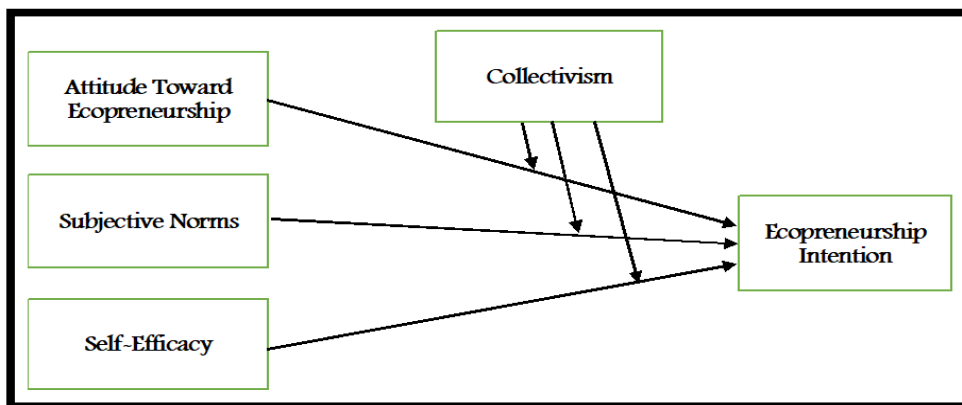
attitudes and intentions for ecological entrepreneurship. It has been shown both theoretically and experimentally that a person's values play a significant part in determining attitudes and actions that they would exhibit in given situation. The ways in which people orient themselves toward their values have a direct influence on their intentions. People make an effort to focus on information that is consistent with orientation value and ignore information that is inconsistent with that orientation. A person who has a strong individualistic attitude will care more about himself and will give the surrounding environment less consideration (Gunawan et al., 2022). Accordingly, hypotheses listed below are put forward.

H4a: Collectivism will moderate the relationship of the attitude and ecopreneurship intentions.

H4b: Collectivism will moderate relationship of subjective norms and ecopreneurship intentions.

H4c: Collectivism will moderate the relationship of self-efficacy and ecopreneurship intentions.

Figure 1 Theoretical Framework



RESEARCH METHODOLOGY

The researchers used positivism philosophy and deductive approach to conduct this research. This study used quantitative technique by leading review of relevant past research and administering questionnaires to the unit of analysis. Data was gathered with help of structured questionnaire and the items of the questionnaire are adopted from valid studies. This research is being carried out on small and medium-sized enterprises (SMEs) in Pakistan. According to (2016), small and medium-sized enterprises (SMEs) in Pakistan play an important part in the growth and development of the nation. The contribution of small and medium-sized enterprises (SMEs) to a nation's gross domestic product (GDP) is significant, and these businesses also play a significant role in the creation of jobs and the alleviation of poverty. In this connection, researcher employed a sampling strategy in order to choose the observations from the target population. The empirical research typically used both probability and nonprobability approach dependent on the characteristics of the population. In the present investigation, the sample was chosen from the whole population using a method known as probability sampling.

The data were obtained from the 250 chosen workers of 70 manufacturing SMEs using the simple random procedure. For the purposes of sampling, production line worker lists were collected and

retrieved. Further, sample size was determine through the reasoning presented by (Bentler & Chou, 1987) states that it is required to have five replies for the each parameter in order to calculate the minimal sample size. Five research assistants were employed, given training, and supervised in order to gather data from the seven districts that were chosen for the study. The Entrepreneurial Intention Questionnaire (EIQ), which was developed by (Parulian & Madhakomala, 2022), was chosen to be used for the evaluation of the respondents' ecological entrepreneurial attitudes. The concept of collectivism was taken from (Kashima et al., 1995). In this regard, researcher used SPSS and smart PLS SEM to analyze the collected responses. The structural equational model was used to test the hypothesis of the study.

DATA ANALYSIS

Reliability Analysis

The construct reliability of the reflecting structures exceeds 0.70. In addition, the values of (Rho A) and C-A are more than the permitted limit of 0.70, as shown in Table 1. The obtained AVEs for all constructs ranged from .501 to .566, indicating high degree of construct reliability and convergence of measurement models. As shown in Table 2, the discriminant validity of measurement model was subsequently established.

Figure 2 Reliability Analysis

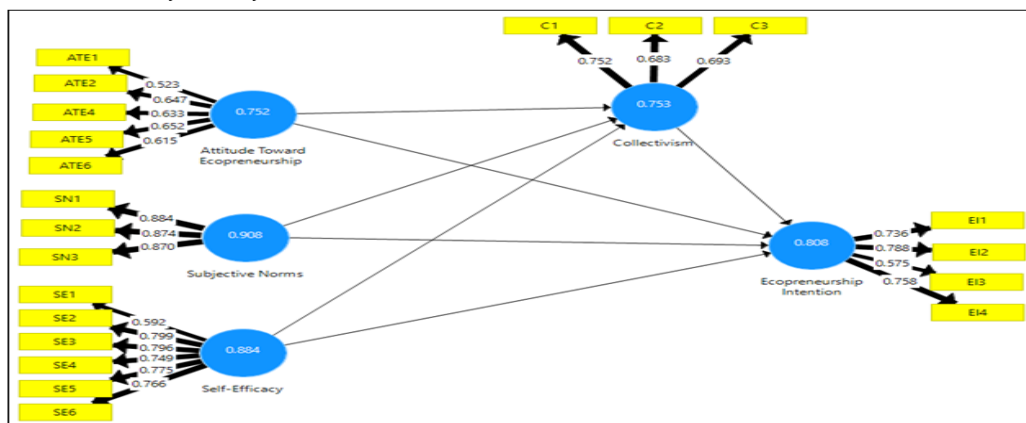


Table 1 Reliability Analysis

	Cronbach's Alpha	rho A	CR	(AVE)
Attitude Toward Ecopreneurship	0.75	0.76	0.78	0.58
Collectivism	0.75	0.76	0.78	0.50
Ecopreneurship Intention	0.81	0.83	0.86	0.52
Self-Efficacy	0.88	0.89	0.90	0.56
Subjective Norms	0.91	0.92	0.94	0.77

Table 1 displayed the HTMT outcome, which is an additional measure of discriminant validity. The values range between 0.23 and 0.49 demonstrating discriminant validity, as shown by the findings (Farooq et al., 2018).

Table 2 Discriminant Validity_HTMT

	ATE	C	EI	SE	SN
Attitude Toward Ecopreneurship					
Collectivism	0.38				
Ecopreneurship Intention	0.46	0.53			
Self-Efficacy	0.23	0.49	0.44		
Subjective Norms	0.34	0.43	0.44	0.29	

Structural Model

Our findings show that attitude toward ecopreneurship has significant influence on ecopreneurship intentions of managers which supports first hypothesis (H1). Further, findings show that self-efficacy has significant influence UPon ecopreneurship intentions of SME’s managers which supports the second hypothesis (H2). Moreover, findings show that subjective norms have significant influence on ecopreneurship intentions of SME’s managers which supports third hypothesis (H3). Researchers thus evaluated the significant moderating relationship of collectivism between ecopreneurship and ecopreneurship intentions of the managers which supports the fourth (a) hypothesis (H4A). Further, researchers evaluated a significant moderating relationship of collectivism between self-efficacy and ecopreneurship intentions of managers which supports hypothesis (H4B). In this connection, the researchers evaluated a significant moderating relationship of the collectivism between subjective norms as well as the ecopreneurship intentions of the SME’s managers which supports the hypothesis (H4C).

Figure 3 Structural Equational Model

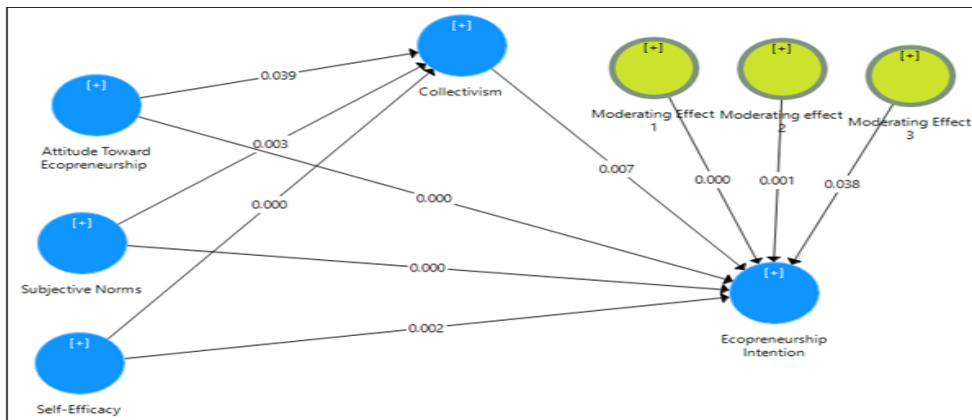


Table 3 Testing of Hypothesis

	OS (O)	T-Statistics	PV
Direct Effect			
Attitude Toward Ecopreneurship -> Ecopreneurship Intention	0.19	3.78	0
Self-Efficacy -> Ecopreneurship Intention	0.12	3.11	0
Subjective Norms -> Ecopreneurship Intention	0.35	6.57	0
Attitude Toward Ecopreneurship -> Collectivism	0.06	2.06	0.04
Self-Efficacy -> Collectivism	0.29	5.74	0

Subjective Norms -> Collectivism	0.13	2.98	0
Collectivism -> Ecopreneurship Intention	0.11	2.72	0.01
Moderating Effect			
Moderating Effect 1 -> Ecopreneurship Intention	0.26	5.2	0
Moderating Effect 3 -> Ecopreneurship Intention	0.12	2.08	0.04
Moderating effect 2 -> Ecopreneurship Intention	0.15	3.24	0

DISCUSSION

In this work, we proposed and evaluated a model based on an enhanced version of Ajzen's theory of planned behaviour, which was designed expressly for the purpose of understanding ecopreneurship intents by integrating moderating function that collectivism plays in the process. The significance of the association between attitudes and ecopreneurship aspirations is the most notable conclusion of current research. When collectivism is present, this relationship becomes more significant. The results of present investigation are consistent with findings of other studies . The second significant conclusion relates to one's own set of personal standards. Subjective norms have a significant impact on ecopreneurship ambitions. At this point in the process, it would be helpful for us to think about the bigger picture of the research. Culture within a society does really play a part in the formation of behaviour. Relationships play a central role in Pakistan's social and cultural landscape, which is characterized by strong collectivist values. Results of present investigation are consistent with the findings of other studies .

The self-efficacy concept, sometimes known as having control over one's behavior, is the subject of the third significant result. People with low self-efficacy are more likely to give up at earlier stages, which can hinder the sustainable development of any business. Self-efficacy is crucial for inspiring individuals to engage in ecopreneurship since there is a possibility of negative outcomes at the beginning of any firm. This study provides significant information in reaching the desired conclusion based upon the results obtained through statistical procedure about potential relationships among variables. The conclusions of this investigation are consistent with the findings of earlier studies. In conclusion, research showed that there is substantial moderating link between the collectivism and attitudes toward ecopreneurship and attitudes toward self-efficacy, subjective norms and plans to engage in ecopreneurship. Conclusions of investigation are consistent with findings of earlier studies ([Strydom et al., 2021](#)).

CONCLUSION

In addition to attitudes, subjective norms, and self-efficacy, as established by the theory of planned behaviour, existence of certain values and norms in individuals, such as collectivism, has an effect on people's intents to participate in ecopreneurship, according to the study's results. In addition, the positive impacts are amplified by the presence of social capital in the form of persons who have positive opinions towards the adoption. This study's objective was to expand the theory of planned behaviour model by integrating the moderating effect of collectivism and evaluating it in the setting of a developing nation. Subjective norms and self-efficacy are the fundamental factors that drive ecopreneurship; in contrast, an attitude toward ecopreneurship is only meaningful when the collectivism and altruism are present. Similarly, importance of three-way interactions for attitude,

subjective norms, and self-efficacy with the collectivism has led to the discovery of the moderating effect of collectivism. This study is limited to the SME's operating in Pakistan. The sample size of the study is also small.

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