MEDITING ROLE OF COMPETITIVE INTENSITY ON THE RELATIONSHIP BETWEEN SUSTAINABLE ENTREPRENEURSHIP AND SERVICE INNOVATIONS OF SMEs IN THE HOSPITALITY INDUSTRY

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Introduction

- After the end of civil war in 2009, Sri Lankan tourism industry began to boom (SLTDA, Annual Statistical Report, 2022)
- Accommodation capacity of the country expanded and HSMEs marked the highest growth rate (SLTDA, Year in Review, 2022)
- Rapid growth of HSMEs led to intense competition in the market
- HSMEs is lack competitiveness due to many factors including poor innovativeness (Farida & Setiawan, 2020)
- Detrimental impacts of SMEs on the environment created the need for adopting sustainable practices (Hooi, et al., 2016)
- There is a scarcity of studies focusing on the relationship between sustainable entrepreneurship and service innovation in Hospitality Industry (Baiocco, et al., 2023; Sørensen & Grindsted, 2021)

Introduction Cont.

Type of accommodation establishment	2018	2019	2020	2021	2022	2023 (up to July)
Boutique hotel	31	36	37	40	40	40
Boutique Villa	40	46	45	46	49	51
Guest house	936	1050	1125	1328	1380	1527
Homestay units	442	548	776	965	1009	1025
Bungalows	395	460	533	772	857	895
5 star	23	26	25	27	28	28
4 star	21	24	27	27	28	28
3 star	24	26	26	25	26	26
2 star	38	41	42	41	37	37
1 star	39	38	39	39	37	37

Literature Review

Sustainable Entrepreneurship	Sustainable entrepreneurship is a form of entrepreneurship and business that attains the desired level of competitiveness and profitability while creating a long-lasting equilibrium between social justice, environmental quality, and economic prosperity	(Hummels & Argyrou, 2021)
	Sustainable entrepreneurship helps businesses to achieve competitive advantages as it identifies new business opportunities, new products, production methods, and ways of organizing business processes in sustainable ways	(Franco & Rodrigues, 2021)

Literature Review

Service Innovations	The research field of service innovation was initially established by Barras in 1986 through the seminal paper “Towards a Theory of Innovation in Services	(Barras, 1986; Moreira, et al., 2020)
	In simple terms, service innovation is the development and introduction of new services	(Martin-Rios & Ciobanu,2019)
	service innovations create competitive and sustainable customer experiences, and they also influence customer satisfaction and loyalty	(Toivonen & Tuominen, 2009)

Literature Review

Competitive Intensity	Competitive intensity refers to the level of competition that firms face within their respective industries	(Chen, et al. 2015)
	High level of competitive intensity is characterized by fierce competition, numerous promotion battles, similar product offerings, and intense price competition	(Cao, 2018).
	presence of intense competition poses a significant threat to firms and it hinders the ability of businesses to achieve long-term competitive advantages	(Marín-Idárraga & Cuartas-Marin, 2019).

Literature Review

SMEs	SMEs are considered the backbone of any nation as they have a profound impact on economic growth	(Prasanna, et al., 2021)
	Common parameters used to define SMEs are the number of employees, annual turnover, capital assets, input utilization, production capacity, level of technology integration, and management approaches	(Prasanna, et al., 2021)
	SMEs experience lower job quality, stability, and employee security compared to larger corporations due to limited resources, global entry barriers, and less innovative capabilities	(Ren, et al., 2012)

Research Objectives

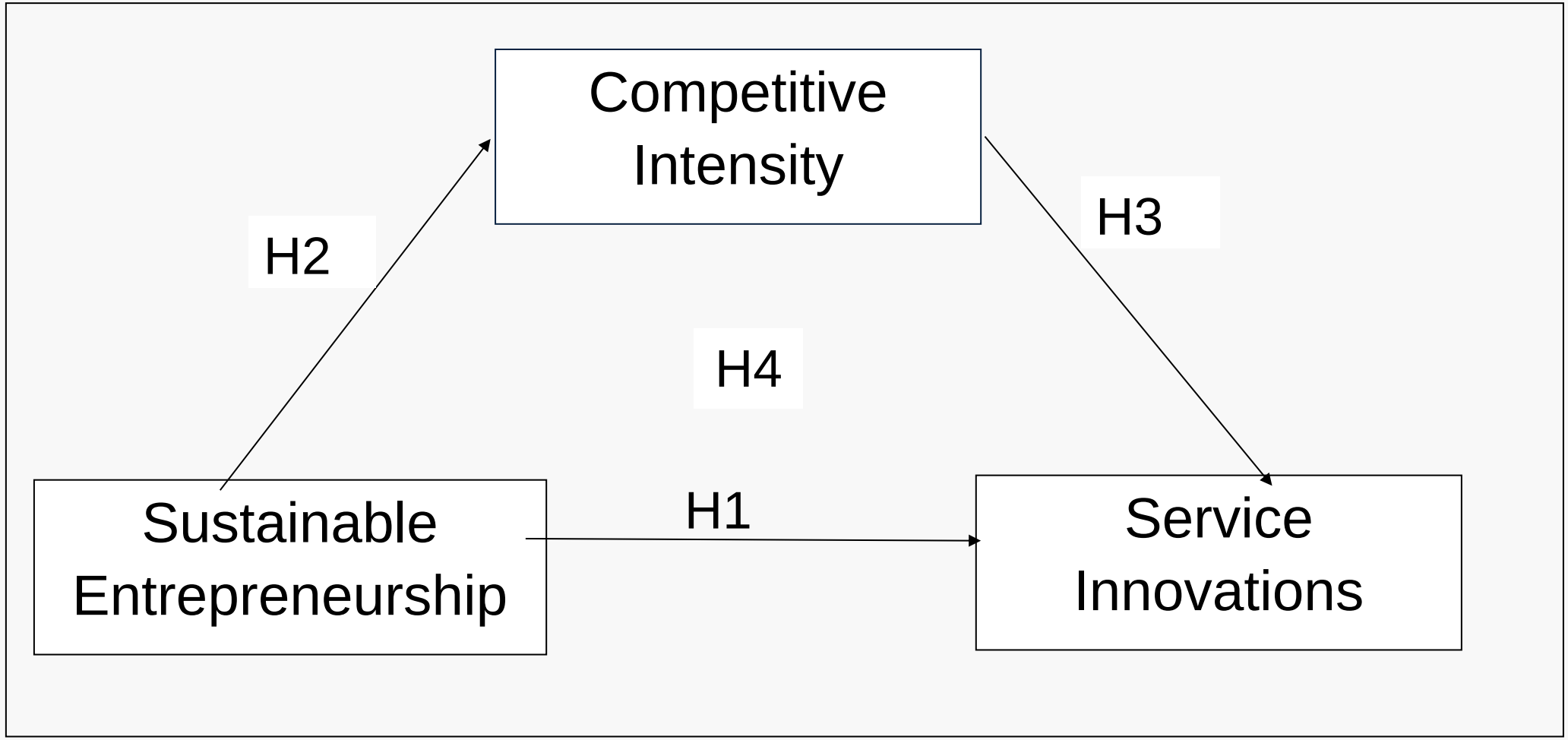
To investigate the relationship between sustainable entrepreneurship and service innovations of SMEs in the hospitality industry

To investigate the relationship between sustainable entrepreneurship and competitive intensity of SMEs in the hospitality industry

To investigate the relationship between competitive intensity and service innovations of SMEs in the hospitality industry

To investigate the mediating role of competitive intensity on the relationship between SE and SI of SMEs in the hospitality industry

Conceptual Framework / Hypothesis



Hypothesis

H1	There is a relationship between sustainable entrepreneurship and service innovations of SMEs in the hospitality industry
H2	There is a relationship between sustainable entrepreneurship and competitive intensity of SMEs in the hospitality industry
H3	There is a relationship between competitive intensity and service innovations of SMEs in the hospitality industry
H4	There is a mediating impact of competitive intensity on the relationship between sustainable entrepreneurship and service innovations of SMEs in the hospitality industry

Methodology

- Research Design

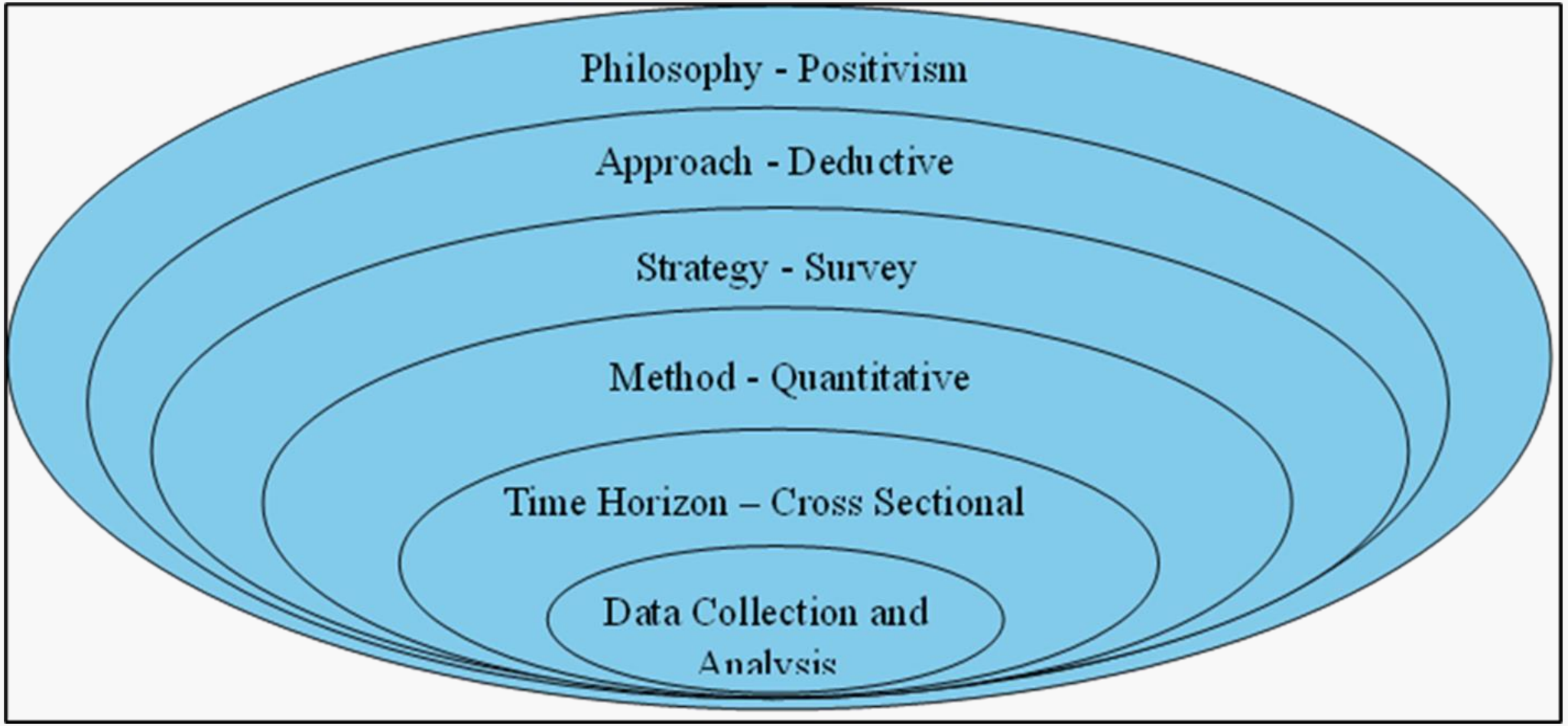
Research design is the comprehensive blueprint of a research project, which provides a systematic explanation of how research questions will be addressed

The quantitative survey research design which involves utilizing a survey as the method of data collection was employed in this study

The quantitative survey research design was the most appropriate choice since the researcher needed to gather data from a larger population by selecting a sample from that population

Survey research design is suitable when the researcher aims to answer the research questions that involve describing, comparing, and/or exploring relationships between variables

- Research Onion Model



Source: Developed by the researcher based on the research onion model presented by Saunders et al. (2019)

- Research Onion Model Cont.

Philosophy	• Positivism
Research Approach	• Deductive Research Approach
Research Strategy	• Survey design
Research Method	• Selection of the deductive research approach led to the utilization of the quantitative research method as the research method
Time Horizon	• Cross-sectional design was chosen due to the limitations of available time and resources to conduct the research.....

- Data Collection and Analysis

Research Setting	The central province consists of three districts including Kandy, Matale, Nuwara Eliya
Population	668 Small and Medium-Sized accomodation establishments (Homestays. Guesthouse, Bungalows) in the Central Province that are registered under the SLTDA
Sample	250 Small and Medium-Sized Accommodation Establishments in the Central Province (Slovin. 1960)
Sampling Technique	Stratified Sampling
Data Collection	A self-administered questionnaire-based survey used to elicit primary data
	Pre-existing literature and websites, travel journals, news articles and reports were utilized to gather secondary data
Data Analysis	Structural Equation Modeling (SMART PLS)

- **Sample Size Determination Based on Slovin's Formula**

District	Population	Percentage	Sample
Kandy	373	56%	140
Mathale	148	22%	55
Nuwara Eliya	147	22%	55
Total	668	100%	250

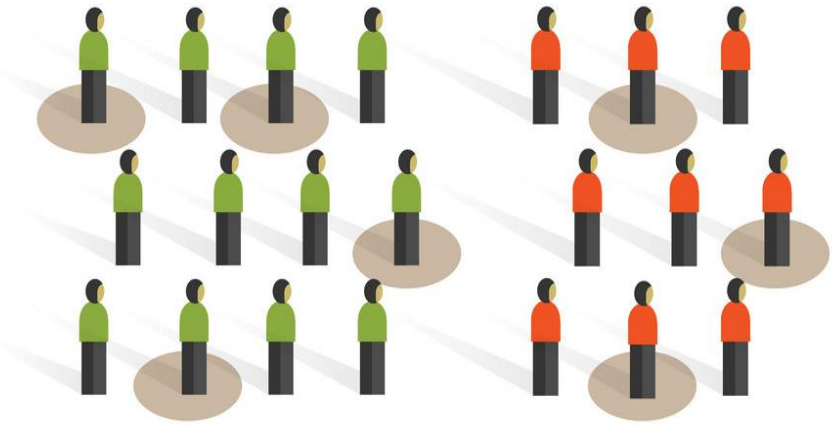
N = 668 e =0.05

$$n = \frac{N}{1 + Ne^2}$$

$$n = \frac{668}{1 + 668 * (0.05^2)}$$

n = 250.187

n = The sample Size is 250



Sample Size Determination Cont.

District	Type of accommodation establishment	Population	Sample
Kandy	Homestays	152	57
	Guest houses	116	44
	Bungalows	105	39
Nuwara Eliya	Homestays	61	23
	Guest houses	53	20
	Bungalows	34	12
Mathale	Homestays	19	7
	Guest houses	68	25
	Bungalows	60	23
Total		**668**	**250**

Operationalization

Variable	Dimensions	Indicators	Measuring Scale	Source
(Sustainable Entrepreneurship – Independent Variable)	Economic	• Increasing sales • Business/ financial growth • Generating profit • Developing new markets • Increased new employees • Economic benefits to the community	5-Point Likert Scale	(Fischer, et al., 2020; Hooi, et al., 2016; Soto-acosta. et al., 2016))
	Environment	• Environmentally friendly products • Production of energy efficiency • Renewable energy • Green technologies • Creating value from waste	5-Point Likert Scale	
	Social	• Quality of life • living conditions • better education • Supporting local activities • Long-term relationships with industry partners	5-Point Likert Scale	

Operationalization Cont.

Variable	Dimensions	Indicators	Measuring Scale	Source
Service Innovation (Dependent Variable)	New Product/ Service Creation	• Innovative services • Research and Development • seeking opportunities • Regular assessment of market trends	5-Point Likert Scale	(Bhat & Sharma, 2021; Chesbrough & Spohrer, 2006 ; Gaiardelli, et al., 2020)
	Organizational Innovation	• Novel business practice • Renewal of organizational structure • Top management support • New work methods/ processes	5-Point Likert Scale	
	Adoption of technological innovations	• Investments on cutting edge technologies • Easier to pay bills through e-billing (guest's bills) • Well-developed sophisticated internet applications • Training staff to utilize the technologies	5-Point Likert Scale	

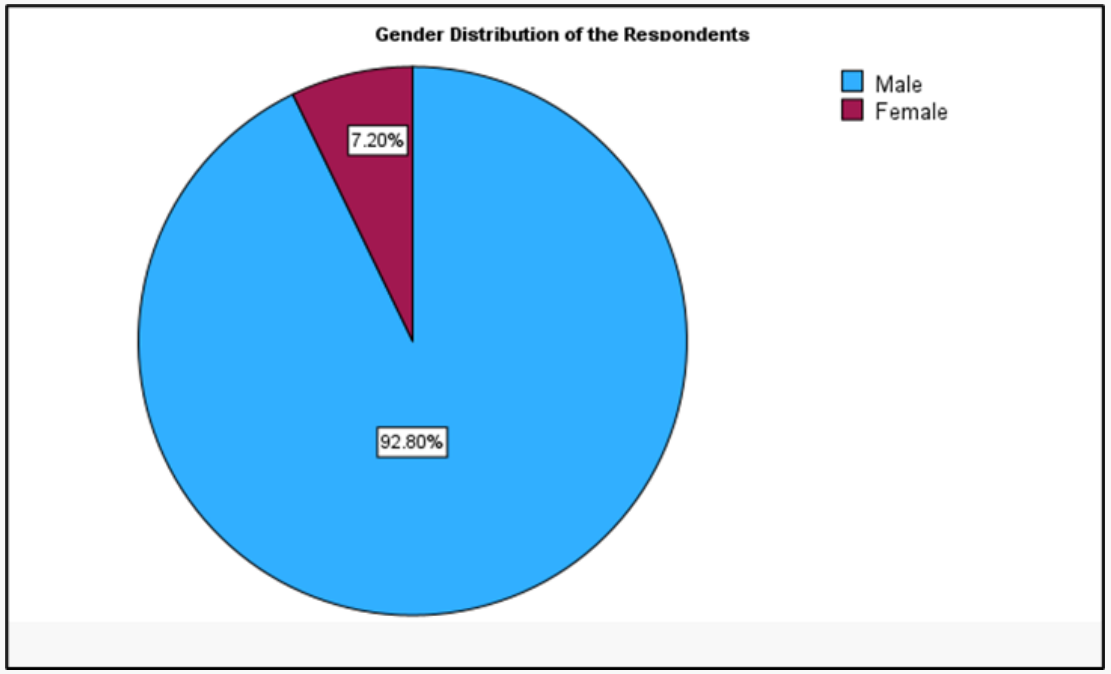
Operationalization Cont.

Variable	Dimensions	Indicators	Measuring Scale	Source
Competitive Intensity (Moderating Variable)	Market Rivalry	• Intense competition • High number of similar hospitality companies • Challenging market rivalry • Challenges in diffeentiating services • High demand and high competition in the region	5-Point Likert Scale	(Cheng & Krumwiede, 2010; Chua & Lim, 2019; Edwinarto, et al., 2019 Fainshmidt & Frazier, 2017)
	Price Competition	• Prone to price competition • Discounts to win customers	5-Point Likert Scale	
	Technology Competition	• Feels pressure to stay technologically competitive • Use of advanced technologies by competitors • Rapidly evolving technological landscape • Competitors' technological strategies • Competition in the industry extends beyond traditional service offerings	5-Point Likert Scale	

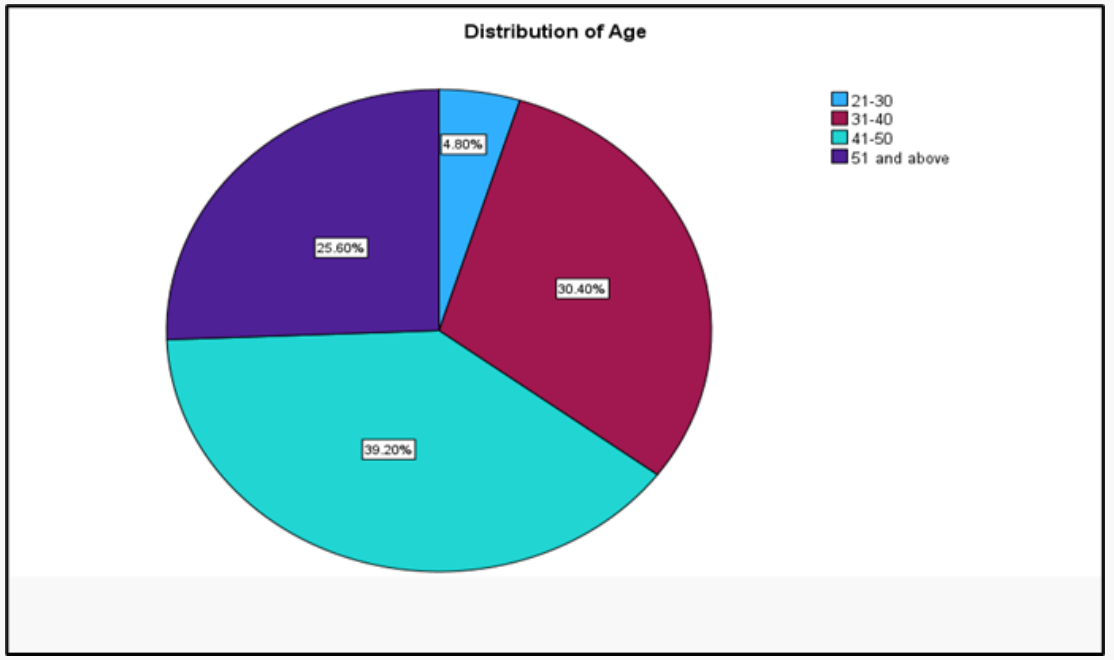
Results and Discussions

- **Analysis of Background Variables**

Distribution of Gender



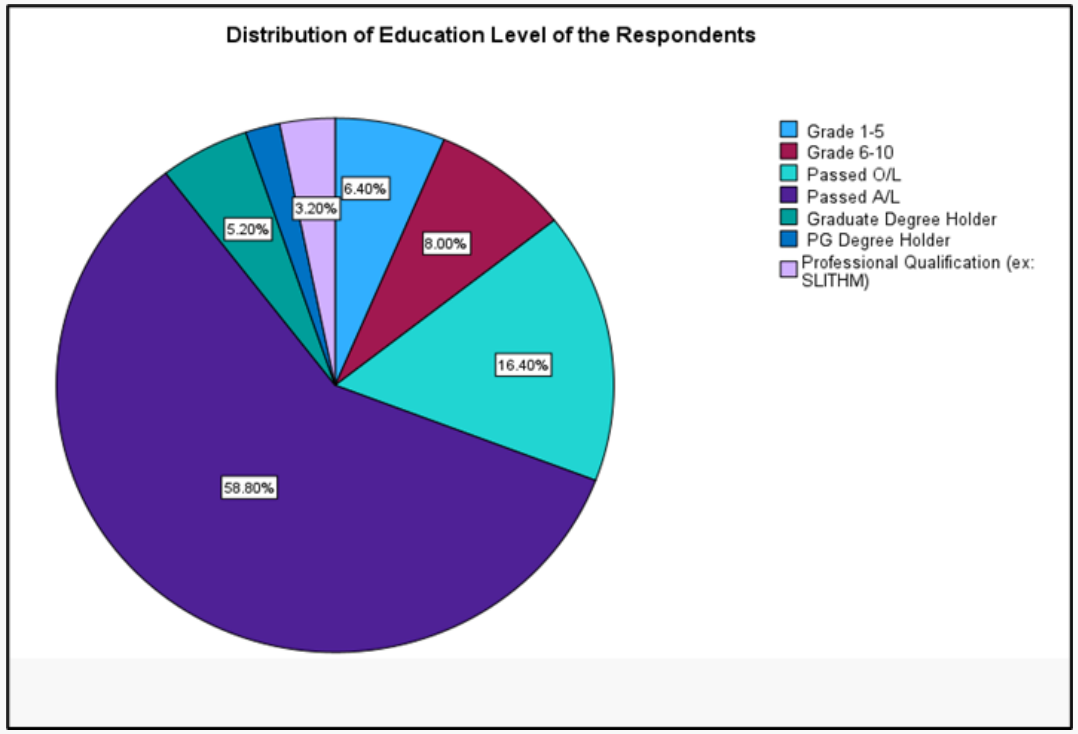
Distribution of Age



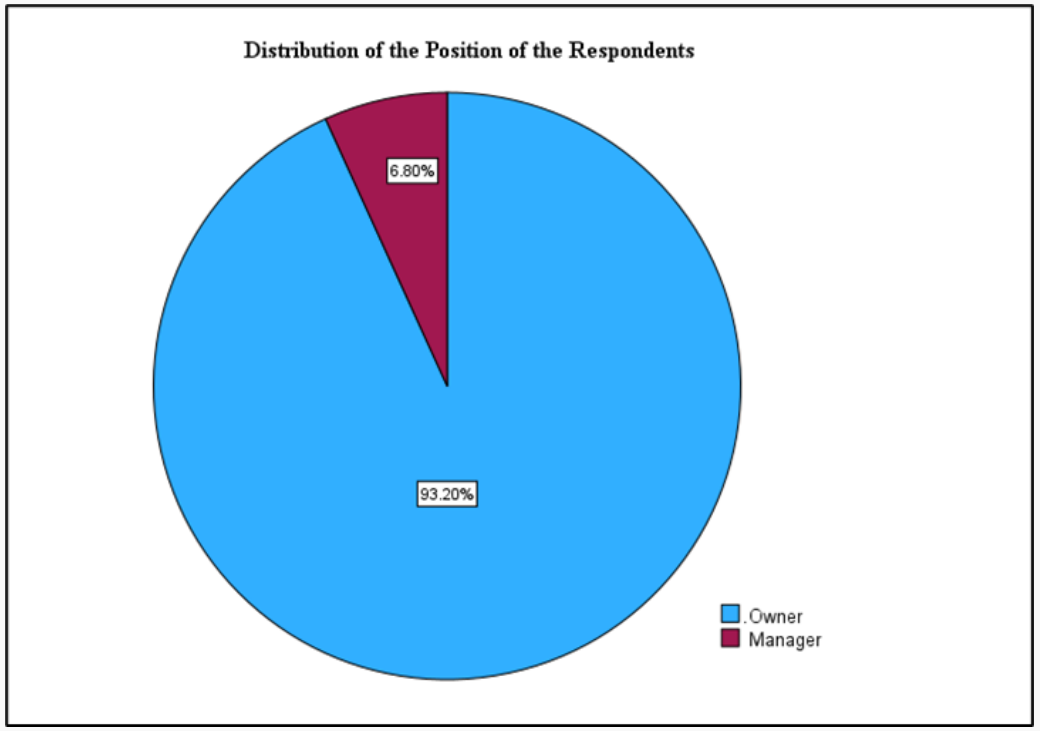
Source: SPSS data output from field survey information

- **Analysis of Background Variables Cont.**

Distribution of Education Level



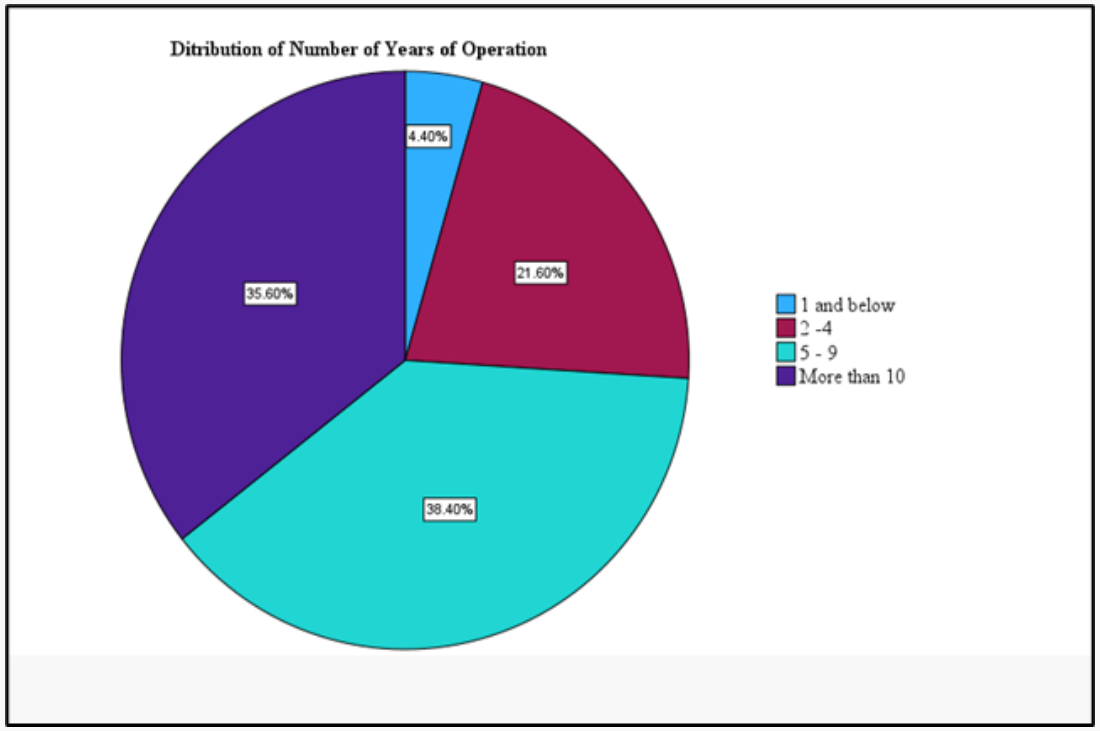
Distribution of Position



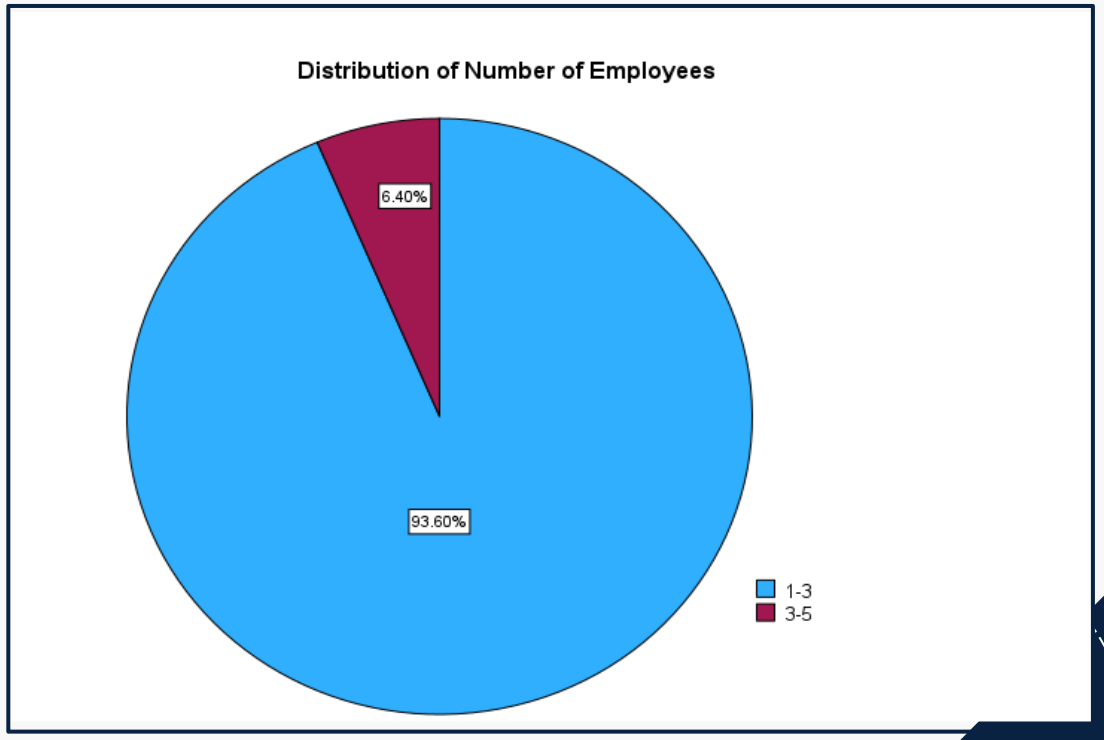
Source: SPSS data output from field survey information

• Analysis of Background Variables Cont.

Distribution of Years of Operation



Distribution of Number of Employees



Source: SPSS data output from field survey information

- **Reliability**

Cronbach's Alpha

Variable	Cronbach's alpha
SE	0.795
SI	0.876
CI	0.899

Source: Analytical results from the SmartPLS

Composite Reliability

Variable	Composite reliability
SE	0.777
SI	0.909
CI	0.830

Source: Analytical results from the SmartPLS

- **Validity**

Convergent Validity

Variable	AVE
SE	0.538
SI	0.556
CI	0.551

Source: Analytical results from the SmartPLS

- **Discriminant Validity**

Fornell & Larcker Criterion

	SE	SI	CI
SE	0.733		
SI	0.348	0.745	
CI	0.448	0.437	0.742

HTMT

	SE	SI	CI
SE			
SI	0.480		
CI	0.701	0.525	

Source: Analytical results from the SmartPLS

Cross Loading

Source: Analytical results from the SmartPLS

	SE	SI	CI
SS1	0.805	0.537	0.487
SS2	0.912	0.549	0.732
SS3	0.925	0.571	0.550
SS4	0.812	0.005	0.708
SS5	0.805	0.537	0.688
ES1	0.874	0.602	0.652
ES2	0.89	0.622	0.651
ES3	0.873	0.11	0.691
ES4	0.802	0.745	0.614
ES5	0.802	0.731	0.591
ES6	0.919	0.603	0.559
ES7	0.881	0.598	0.48
ECS1	0.848	0.774	0.642
ECS2	0.856	0.614	0.651
ECS3	0.916	0.671	0.726
ECS4	0.891	0.75	0.698
ECS5	0.831	0.673	0.554
NPSC1	0.792	0.816	0.598
NPSC2	0.746	0.887	0.686
NPSC3	0.797	0.827	0.664
NPSC4	0.783	0.908	0.743
OI1	0.759	0.832	0.710
OI2	0.792	0.881	0.731
OI3	0.726	0.802	0.613
OI4	0.719	0.814	0.664
ATI1	0.777	0.856	0.716
ATI2	0.791	0.859	0.685
ATI3	0.795	0.885	0.706
ATI4	0.732	0.839	0.655

Structural Model Assessment

- **Collinearity Analysis**

Relation	VIF
SE-> SI	2.412
SE -> CI	1.000
CI -> SI	2.412

Source: Analytical results from the SmartPLS

- **Path Coefficients**

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
SE->SI	0.514	0.512	0.053	9.742	0.000
SE-> CI	0.849	0.850	0.021	40.590	0.000
CI-> SI	0.479	0.482	0.052	9.296	0.000

Source: Analytical results from the SmartPLS

Coefficient of determination (R^2)

	R square	R square adjusted	Strength
SI	0.912	0.911	Substantial
CI	0.833	0.824	Substantial

Source: Analytical results from the SmartPLS

Effect Size of f2

	CI	SE	SI
CI			0.732
SE	2.573		0.841
SI			

Blindfolding and Predictive Relevance (Q^2)

	Q^2 predict
SI	0.474
CI	0.435

Source: Analytical results from the SmartPLS

Hypothesis Testing

Hypothesis	Hypothesized Relationship	Path Coefficient (From PLS Algorithm)	T statistics (|O/STDEV|)	P values	Status
H_1	SE has a positive impact on SI	0.514	9.296	0.000	Accepted
H_2	SE has a positive impact on CI	0.849	40.590	0.000	Accepted
H_3	CI has a positive impact on SI	0.479	9.742	0.000	Accepted
H_4	CI mediates the relationship between SE and SI	0.407	9.934	0.000	Accepted

Source: Analytical results from the SmartPLS

Discussion

Hypothesis	Supported or not	Research Study	Findings
There is a relationship between SE and SI	Supported	(Roomi, et al., 2021),	Sustainable entrepreneurship serves as a provider of innovative products and services.
There is a relationship between SE and CI	Supported	(Tarnovskaya, 2023)	Integration of sustainability in companies, and strategic plans provide opportunities for gaining a competitive edge
There is a relationship between CI and SI	Supported	(Ramos-hidagolgo, et al., 2022)	Innovation is a critical source for achieving competitive advantages and CI leads to various types of innovation within organizations
CI mediates the relationship between SE and SI	Supported	There are no comparable studies identified.	

Conclusions

- The purpose of this study was to examine the relationship between SE and SI HSMEs
- As the initial step, researcher developed four objectives along with the corresponding research questions
- After reviewing existing literature, conceptual framework was developed
- Primary data was collected through the distribution of self-administered structured questionnaires
- SPSS and SmartPLS software were used to analyze the collected data and all the hypothesis was accepted
- The study finally concluded that, sustainable entrepreneurship leads to service innovations of HSMEs and competitive intensity partially mediate this relationship

Recommendations

- governmental and non-governmental organizations and policymakers have to play a leading role in promoting sustainable entrepreneurship within the hospitality SMEs
- government bodies like SLTDA and provincial tourism ministries, along with non-governmental organizations, can arrange regular training and development programs, workshops and seminars to exchange knowledge
- entrepreneurs in the HSMEs who have completed training need to be given incentives, rewards, and certificates to showcase their commitment
- Regular supervision should be provided to ensure that relevant standards are maintained and upgraded
- Government and other responsible authorities need to implement policies that offer incentives such as grants, tax breaks, and subsidies to encourage th adoption of sustainable practices.

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Thanks!

Do you have any questions?

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