

Public Policy for Environmental Regulation and Its Impact on the Business Performance of Restaurants in Thailand

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The purpose of this study is to examine the impact of public policy in terms of environmental regulations on the business performance of the restaurant industry in Thailand. To address this objective, primary data collection tools, like questionnaires, were developed and distributed among various employees working in the restaurant industry of Thailand. A sample of 322 was finally accepted for descriptive and regression analysis. To measure environmental regulation, factors like environment. normative environment. regulative environment, overall commitment, and specific environmental sustainability policy were observed. Business performance considered factors like market share, market growth, return on investment, employees' productivity and mean performance. It was found that various factors of environmental regulations have a significant and positive (negative) influence on the value of selected indicators of business performance. More specifically, significant attention is required regarding the relationships of specific environmental sustainability policy in terms of biodiversity, energy usage and waste management in the restaurant industry. Some limitations are also observed in the present study. This study has only examined the primary measures of business performance and their relationship with environmental regulations' key factors, as observed through questionnaires. In addition, only the hotel industry was targeted while ignoring other sectors in the similar economy. Cross sectional comparison between various types of hotels, as discussed in terms of



demographic details, is also missing. Future research work can provide significant additions to the theoretical and empirical literature, keeping these limitations as their contributions. The practical implications of the study cover documentary evidence for the managers, owners, and decision makers both in government departments and the restaurant industry for better understanding of public policy in terms of environmental regulation and business performance.

Key words: Environmental regulations, public policy, business performance, Thailand.

Introduction

The term of policy is an ability or proficiency, while public policy is a statement or will of the government regarding an activity carried out in a particular field to improve the welfare of society (Anasiru, 2011). Over recent past decades, hotels and restaurants have increasingly been participating in the sustainability of the environment, observing it as a significant need of the time (Jantasri & Srivardhana, 2019; Wangchan & Worapishet, 2019). In this regard, several policies have been defined by the restaurant and hotel industry to reduce the environmental impact of their daily operations, not only for the global climate but also for the betterment of performance (Bohdanowicz, 2006; Claver-Cortés, Pereira-Moliner, José Tarí, & Molina-Azorín, 2008; Davidson, 2003; Erdogan & Tosun, 2009; Kamran & Omran, 2018). Such activities and rules have provided a good understanding of the significance of the changing environment and its ultimate impact on individuals and community life. Meanwhile, the role of governments in defining related policies and implementing them cannot be neglected. In different economies, it is of primary concern to regional authorities in writing public policy to define, review and implement environmental regulations (Bengston, Fletcher, & Nelson, 2004; Kamran & Omran, 2018; Sabatier, 1986). Such regulations have reasonably addressed the title of environmental management or EM. By integrating the factor of EM into their daily operations, the restaurant industry is growing day by day.

In the region of Thailand, the Thai Hotels Association or THA has recently sought support for the local government in the development of Green Hotel Standards (GHS), as expressed by Worrachaddejchai (Worrachaddejchai, 2018). This idea is a significant addition in recent developments for the betterment of the natural environment in terms of "go green" in Thailand. During the time of 2015, initial standards were settled by the environmental quality promotion department of the natural resources with the environmental ministry (Worrachaddejchai, 2018). The significant aim of this collaboration was to encourage the hospitality industry and its operation for the improvement of the natural environment and society as well. This study has considered the restaurant industry of Thailand to examine the relationship between environmental regulations. To the best of the author's knowledge, this



study is the first contribution to relate environmental regulation with the business performance of the restaurant industry in Thailand. The rest of the paper is structured as follows: Section two provides a literature review. Section three deals with a description of the research methods. Section four deals with the results and discussion. Section five provides the conclusion of the study.

Literature Review

A growing field in literature, "environmental regulations and their association with the restaurant and hotel industry", is under observation by the researchers. The idea of EM is defined as the study of all organisational activities in order to reduce adverse natural impacts that are the outcomes of business operations (Céspedes-Lorente, de Burgos-Jiménez, & Álvarez-Gil, 2003; Nejati, Salamzadeh, & Sharafi Farzad, 2010; Wahba, 2008). In this regard, some studies have considered environmental regulations under the label of corporate social responsibility, which bounds businesses to work as per the best interest of society and the natural atmosphere (Boström, 2006; Douglas & Wildavsky, 1983; Gill, 2008; Kotler & Lee, 2008). Comparatively, the harmful effects of the restaurant industry are very low. However, literature context has provided significant evidence regarding these activities related to the restaurant industry. This has caused an increasing focus on damage to the natural environment. In different developed economies, this problem is reasonably highlighted in the restaurant and hotel industries. To address environmental regulation, research contributions by Ouyang, Wei, & Chi (2019) have provided a good understanding. The authors have observed the idea of EM in the hotel industry under the shadow of an institutional environment. More specifically, the authors discuss various dimensions of environmental regulations, the moderating role of hotel characteristics and their impact on EM practices in the hotel industry. Findings of their study indicate the fact that there is a positive association between EM practices, as implemented by the hotel industry, and various regulations implemented by states. Factors like industry standards and competition in EM practices also play a significant role in overall business operations.

In recent times, Leutwiler-Lee (2018) has observed the factor of sustainability in the hotel industry, analysing the culture of food waste under the shadow of government policies. His study has considered the economy of Korea in addressing the issue of food waste and related regulations as defined by the local government. It is observed that various influential channels play a crucial role in reducing the problem of more food waste and its management.

Business performance is a broad term and has both financial and non-financial perspectives in literature. A series of literature works are available, covering the perspective of business performance in both manufacturing and service industries (Huselid, 1995; Kamran et al., 2016; Omran & Kamran, 2018; Waddock & Graves, 1997; Somjai & Jermsittiparsert, 2019;



Waqas & Bahrain, 2019). It is observed that various factors are significantly associated with defining levels of business performance. For example, Horváthová (2010) explains the fact that business performance and environmental performance are closely associated with each other. A similar idea has been presented by Carter, Kale, & Grimm (2000), Elsayed & Paton (2005), Filbeck & Gorman (2004), and King & Lenox (2001).

Variables and Research Methodology

This study has considered factors like regulative environment (RENV) ranging from RENV1-RENV4, normative environment (NENV1-NENV4), cognitive environment CENV1-CENV4, overall commitment (OVRC1-OVRC2), and specific environmental sustainability policy. For the measurement of business performance, four dimensions titled market share, market growth, return on investment, and employee productivity are observed. All these variables are extracted from the literature and added in the questionnaire. The stated questionnaire was developed in a structural pattern. All items are measured using a five-point Likert scale. In terms of specific environmental sustainability policy, factors include biodiversity (BIO), business travel (BTRVEL), commuting staff (CTOSTAF), construction and refurbishment (CRE), energy usage (ENGUSE), carbon emissions (CEMISION), food and catering (FCAT), pollution avoidance (POLAVOID), and finally the waste management (WMGT). After the development of a questionnaire, it was distributed among various employees of the restaurant industry in Thailand. A final sample of 322 respondents was collected and found reasonable for the further consideration. For analysis purposes, both descriptive and regression analyses were conducted, and findings are presented below.

Results and Discussion

Table 1 provides the output for the demographic variables of the study. As per age distribution, 33.54 percent of respondents were over 40 years. This indicates that one-third of the respondents were senior members, working in the restaurant sector of Thailand. 115 individuals belonged to the age range of 36-40 years, or 35.71 percent of the total respondents. 18.32 percent of respondents belonged to the age category of 31-35 years, showing a frequency of 59. Respondents specified two other classes in the range of 20-25 years (a total of 13 individuals) and 26-30 years (a total of 27 respondents). In terms of gender, 43 percent were male and approximately 57 percent were female. Regarding the distribution of the educational background of the respondents, categories included graduation (20 respondents), Master's (25 respondents), Master's with a diploma (71 respondents), above Master's and below Ph.D. (120 respondents), and Ph.D. (86 respondents). The factor of experience was also observed, where 14 respondents had work experience of 1-2 years, 21 had work experience of 2-4 years, 62 had work experience of 4-7 years, and 115 had work experience of 7-10 years. Additionally, 110 respondents had work-related expertise of 10



years and above. In addition, Table 1 indicates the restaurant class of the respondents, where they were working with their related education and experience as well.

Table 1Demographic findings

Age	Freq.	Percent	Cum.
1: 20-25 Years	13	4.04	4.04
2: 26-30 Years	27	8.39	12.42
3: 31-35 Years	59	18.32	30.75
4: 36-40 Years	115	35.71	66.46
5 above 40 Years	108	33.54	100
Total	322	100	
Gender	Freq.	Percent	Cum.
1: Male	139	43.17	43.17
2: Female	183	56.83	100
Total	322	100	
Education	Freq.	Percent	Cum.
1: Graduation	20	6.21	6.21
2: Master's	25	7.76	13.98
3: Master's + Diploma	71	22.05	36.02
4: Above Master's below PhD	120	37.27	73.29
5: PhD	86	26.71	100
Total	322	100	
Experience	Freq.	Percent	Cum.
1: 1-2 Years	14	4.35	4.35
2: 2-4 Years	21	6.52	10.87
3: 4-7 Years	62	19.25	30.12
4:7-10 Years	115	35.71	65.84
5: 10 Years and above	110	34.16	100
Total	322	100	
Res class	Freq.	Percent	Cum.
1: Average class	51	15.84	15.84
2: Above average	50	15.53	31.37
3: Good class	68	21.12	52.48
4: Excellent	80	24.84	77.33
5: Star Ratings	73	22.67	100
Total	322	100	

Figures below provide a good understanding for the demographic output of the respondents.

Figure 1
Age distribution of the respondents

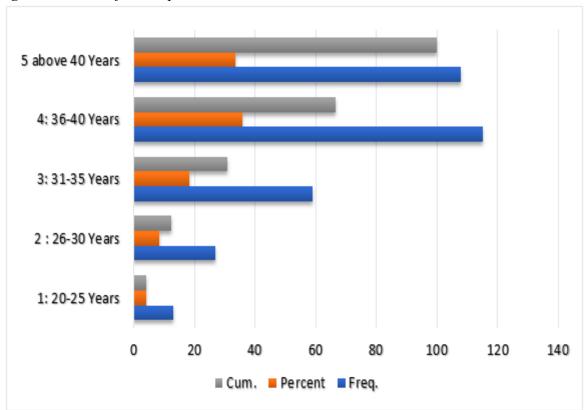


Figure 2 *Gender distribution of the respondents*

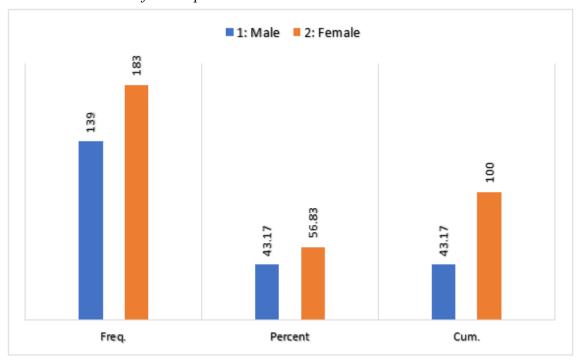


Figure 3 *Education level distribution of the respondents*

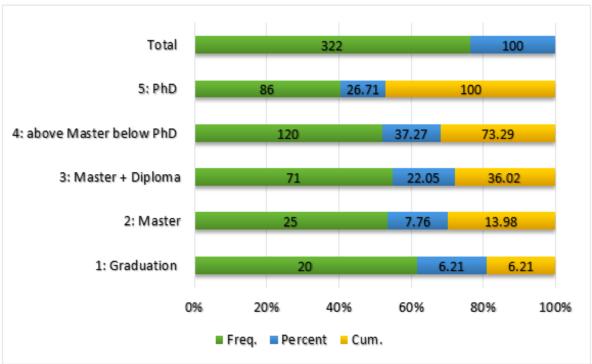


Figure 4 *Experience wise distribution of the respondents*

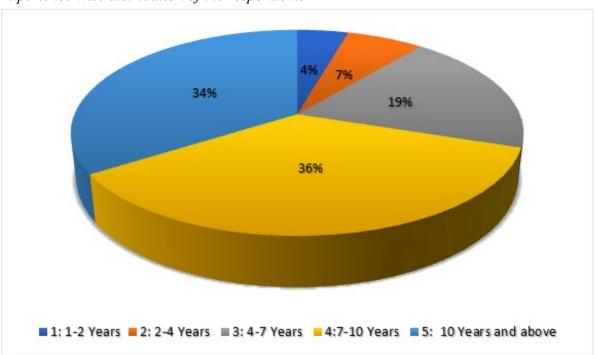




Figure 5
Restaurant class

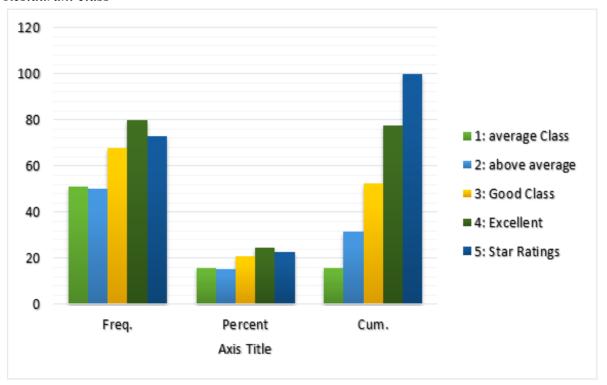


Table 2 provides a descriptive output of the study. It covers variables involved with public policy like the regulative environment, normative environment, cognitive environment, overall commitment, and unique environmental sustainability policy as well. It indicates the fact that the majority of the items presented as selected factors for environmental public policy have a mean score above 4, indicating an agreed point on the Likert scale of 5 points.

Similarly, for business performance, four measures were observed: market growth, market share, employee productivity, and return on investment. Their mean score was also above 4, except for the third indicator of business performance (BP3), which was 3.65. The relative scores in terms of deviation from the mean as well as minimum and maximum observations were also considered in Table 2.



 Table 2

 Descriptive outcomes of the study

Title of the	Items/Abbreviation		Mean	Std. Dev.	Min	Max
variable		Obs				
Regulative	RENV1	322	4.941	1.356	1	5
environment	RENV2	322	4.382	1.197	1	5
	RENV3	322	4.025	1.304	1	5
	RENV4	322	4.416	1.192	1	5
Normative	NENV1	322	4.494	1.128	1	5
environment	NENV2	322	2.689	1.406	1	5
	NENV3	322	4.022	1.296	1	5
	NENV4	322	4.165	1.278	1	5
Cognitive	CENV1	322	3.311	1.221	1	5
environment	CENV2	322	3.039	1.244	1	5
	CENV3	322	4.264	1.218	1	5
	CENV4	322	4.301	1.325	1	5
Overall	OVRC1	322	4.012	1.363	1	5
commitment	OVRC2	322	2.922	1.404	1	5
Specific	BIO	322	4.882	1.079	1	5
environmental	BTRVEL	322	4.876	1.081	1	5
sustainability	CTOSTAF	322	3.724	1.2	1	5
policy	CRE	322	4.907	1.043	1	5
	ENGUSE	322	4.724	1.074	1	5
	CEMISION	322	4.649	1.188	1	5
	FCAT	322	3.638	1.079	1	5
	POLAVOID	322	4.811	1.104	1	5
	WMGT	322	3.732	1.103	1	5
	BP1	322	4.727	1.065	1	5
	BP2	322	4.693	1.015	1	5
Business	BP3	322	3.652	1.016	1	5
performance	BP4	322	4.078	1.013	1	5

Table 3 provides the findings for the correlation matrix between various items of the study. For a better understanding of high and significant correlation, p-values are also given under each of the correlation coefficients. A mix trend is observed through examining the association and interdependence between the selected items. Meanwhile, low, weak and near to moderate levels of association between the items is experienced. There is no high correlation between them. This finally suggests that selected items can be considered for further analysis.



Table 3 *Pairwise correlations*

Varia bles Color	Pairwise	e correlai	tions										
(1) renv1 1.000 renv2 0.292 1.000 renv2 0.645 (3) 0.262 0.289 1.000 renv3 0.000 0.365 (4) 0.252 0.329 0.208 1.000 renv4 0.000 0.667 0.477 (5) 0.190 0.238 0.123 0.347 1.0 0.001 0.187 0.027 0.114 (6) 0.159 0.182 0.203 0.096 0.1 1.0 48 00 0.001 0.364 0.322 0.289 0.347 0.2 0.2 1.0 0.001 0.487 0.000 0.111 0.0 0.0 0.000 0.000 0.111 0.0 0.0 0.00	Varia	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Company Comp	bles												
2)	(1)	1.000				•							
Tenv2	renv1												
Tenv2			_										
0.645	2)	0.292	1.000										
(3)	renv2												
Company Comp		0.645			_								
0.000	(3)	0.262	0.289	1.000									
(4) renv4 0.252 0.329 0.208 1.000 0.000 0.667 0.477 (5) 0.190 0.238 0.123 0.347 1.0 nenv1 0.001 0.187 0.027 0.114 (6) 0.159 0.182 0.203 0.096 0.1 1.0 nenv2 0.004 0.476 0.987 0.086 0.0 (7) nenv3 0.364 0.322 0.289 0.347 0.2 0.2 1.0 0.487 0.000 0.000 0.111 0.0 0.0 0.0 (8) nenv4 0.328 0.333 0.310 0.335 0.2 0.2 0.4 1.0 0.159 0.487 0.000 0.146 0.6 0.0 0.0 0.0 (9) 0.385 0.315 0.351 0.326 0.2 0.2 0.4 0.4 1.0 cenv1 0.000 0.147 0.159 0.000 0.3 0.1 0.0 0.0 62 52 00 00 0.000 0.147	renv3												
Convolution		0.000	0.365		_								
0.000	(4)	0.252	0.329	0.208	1.000								
(5) nenv1 0.190 0.238 0.123 0.347 1.0 00 0.001 0.187 0.027 0.114 (6) 0.159 0.182 0.203 0.096 0.1 1.0 48 00 0.004 0.476 0.987 0.086 0.0 08 (7) nenv3 0.364 0.322 0.289 0.347 0.2 0.2 0.2 1.0 23 40 00 0.487 0.000 0.000 0.111 0.0 0.0 00 00 0.00 00 (8) 0.328 0.333 0.310 0.335 0.2 0.2 0.2 0.4 1.0 22 75 74 00 nenv4 0.159 0.487 0.000 0.146 0.6 0.0 0.0 57 00 00 (9) 0.385 0.315 0.351 0.351 0.326 0.2 0.2 0.2 0.4 0.4 1.0 27 03 54 98 00 0.000 0.147 0.159 0.000 0.3 0.1 0.0 0.0 0.0 62 52 00 00 (10) 0.317 0.370 0.266 0.302 0.1 0.2 0.2 0.2 0.3 0.3 1.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	renv4												
Nemv1 Nemv2 Nemv2 Nemv2 Nemv3 Nemv4 Nemv		0.000	0.667	0.477			_						
0.001 0.187 0.027 0.114	(5)	0.190	0.238	0.123	0.347	1.0							
(6) nenv2 0.159 nenv2 0.182 nenv2 0.203 nenv2 0.096 nenv2 0.1 nenv2 1.0 nenv2 0.004 nenv2 0.476 nenv3 0.987 nenv3 0.086 nenv3 0.00 nenv3 0.322 nenv3 0.289 nenv3 0.347 nenv3 0.2 nenv3 nenv4 0.000 nenv3 0.000 nenv4	nenv1					00							
Nenv2		0.001	0.187	0.027	0.114		_	_					
(7) nenv3 0.364 0.322 0.289 0.347 0.2 0.2 0.2 1.0 23 40 00 0.487 0.000 0.000 0.111 0.0 0.0 0.0 0.0 0.0 0	(6)	0.159	0.182	0.203	0.096	0.1	1.0						
(7) nenv3 0.364 0.322 0.289 0.347 0.2 0.2 1.0 23 40 00 0.487 0.000 0.000 0.111 0.0 0.0 00 0	nenv2					48	00						
(7) nenv3 0.364 0.322 0.289 0.347 0.2 0.2 1.0 23 40 00 0.487 0.000 0.000 0.111 0.0 0.0 00 0		0.004	0.476	0.987	0.086	0.0							
nenv3						08			_				
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	cenv2					81	76	42	57	57	00		
01 00 57 05 51		0.000	0.158	0.824	0.156	0.0	0.0	0.1	0.5	0.1			
						01	00	57	05	51			



(11)	0.281	0.304	0.263	0.338	0.0	0.1	0.3	0.3	0.4	0.3	1.00	
cenv3					86	06	75	40	37	24	0	
	0.167	0.078	0.258	0.000	0.1	0.0	0.0	0.0	0.0	0.1		•
					23	57	00	00	00	57		
(12)	0.036	0.247	0.185	0.212	0.0	0.1	0.1	0.2	0.1	0.1	0.23	1.00
cenv4					71	86	03	78	92	76	4	0
	0.521	0.000	0.001	0.157	0.2	0.0	0.0	0.0	0.0	0.0	0.00	
					03	01	64	00	01	01	0	

Table 4 provides the output for public policy in terms of environmental regulations and their impact on the business performance of restaurants in Thailand. It was found that for the items of the regulative environment, only the effect of RENV2 on business performance in terms of market growth was significantly positive. The coefficient of .046 in Table 4 indicates that with greater focus on REN3, there is a positive impact on the market growth of restaurant businesses. All other indicators of a regulative environment have shown their insignificant impact on the value of market growth as well. For the selected items under the title of normative environment, four proxies have been considered. The effect of NENV2 on business market growth is 0.062, with the standard error of .031 (significant at 1 percent). It shows a direct and positive influence on market growth, while the effect of NENV3 is insignificantly negative. For NENV4, its effect on the market growth of restaurant business is highly positive and significant at 1 percent. It shows that more market growth of the restaurant business in Thailand could be observed with greater focus on normative environments and related indictors.

For cognitive environment, four items titled CENV1-CENV4 are added in the model. Through CENV1, the effect on market growth is found to be significant and negative. It shows that there is an opposed relationship between CENV1 and market growth. However, the rest of the indicators have shown an insignificant relationship with the market growth of the restaurant sector in Thailand.

For the effect of overall commitment (OVERC) on market growth, findings are also presented in Table 4. It is observed that the factor of OCERC1 significantly and negatively affects the market growth of restaurant businesses. For factors like Specific Environmental Sustainability Policy, key factors are also added and presented in Table 4. It is observed that greater focus on biodiversity (BOI), as an individual policy for environmental sustainability, has a significant and positive influence that is reflected in public policy. The coefficient for BIO is 0.164 with a standard error of 0.062 (significant at 1 percent chance of error). Factors like construction and refurbishment (CRE) and energy use (ENGUSE) have their positive and constructive influence on the value of market growth in the region of Thailand. Additionally, factors like waste management (WMGT) have a positive and highly significant impact on the



value of the market growth of the restaurant industry in Thailand.

 Table 4

 Public policy for environmental issues and restaurant performance (market growth)

bp1	Coe	f.	St. Er	r	t-value	p-va	alue	Sig.
RENV1	0.02	4	0.034		0.69	0.48	8	
RENV2	0.06	7	0.040		1.69	0.09	1	*
RENV3	0.04	6	0.034		1.35	0.17	9	
RENV4	0.00	4	0.041		0.09	0.92	6	
NENV1	-0.04	42	0.040		-1.03	0.30	3	
NENV2	0.06	2	0.031		1.96	0.05	1	*
NENV3	-0.04	14	0.043		-1.02	0.30	8	
NENV4	0.12	9	0.040		3.19	0.00	2	***
CENV1	-0.10	08	0.043		-2.53	0.01	2	**
CENV2	0.02	6	0.039		0.67	0.50	6	
CENV3	-0.00	63	0.040		-1.57	0.11	7	
CENV4	-0.04	14	0.034		-1.29	0.19	9	
OVRC1	-0.08	-0.080			-2.06	0.041		**
OVRC2	0.02	0.021			0.63	0.52	7	
BIO	0.16	4	0.062		2.65	0.00	8	***
BTRVEL	0.09	4	0.063		1.49	0.13	8	
CTOSTAF	0.01	7	0.051		0.34	0.737		
CRE	0.28	3	0.060		4.68	0.000		***
ENGUSE	0.12	6	0.053		2.36	0.01	9	**
CEMISION	0.00	4	0.040		0.09	0.92	8	
FCAT	0.04	0	0.058		0.70	0.48	4	
POLAVOID	-0.0	52	0.053		-1.19	0.23	7	
WMGT	0.20	1	0.058		3.48	0.00	1	***
_cons	0.481		0.235		2.05	0.04	1	**
Mean dependent var	Mean dependent var 3.727			SD dep	endent var		1.065	
R-squared		0.592		Number	r of obs		322.00	0
F-test		18.801		Prob > F			0.000	
Akaike crit. (AIC)		712.552		Bayesian crit. (BIC) 803.141			1	

^{***} p<0.01, ** p<0.05, * p<0.1

Table five provides the findings for the effect of various factors of public policy in terms of the environment and its impact on the value of the market share (2nd indicator of restaurant performance in Thailand). It is observed that RENV1 is significant and positive, and CENV3 is significantly and negatively associated with market share of the restaurant industry.



Additionally, factors like BIO, commuting to staff (CTOSTAF), energy usage (ENGUSE), and waste management have significant and positive influences on market share. The value of the F-test provides the overall significance of the findings, which are presented in Table 5. R2 at 57 percent indicates that all the items related to environment and related policies create an above moderate level of variation in the value of the market share of the restaurant industry.

 Table 5

 Public policy for environmental issues and restaurant performance (market share)

bp2	Coe	f.	St. Er	•	t-value	p-va	alue	Sig.
RENV1	0.06	4	0.033		1.94	0.05	3	*
RENV2	-0.03	50	0.039		-1.31	0.19	1	
RENV3	0.00	3	0.033		0.10	0.92	4	
RENV4	0.01	3	0.040		0.34	0.73	7	
NENV1	-0.00)4	0.039		-0.10	0.92	3	
NENV2	0.03	6	0.031		1.19	0.23	5	
NENV3	0.02	7	0.042		0.65	0.51	6	
NENV4	0.03	7	0.039		0.94	0.34	9	
CENV1	-0.03	50	0.042		-1.21	0.22	7	
CENV2	0.00	7	0.038		0.20	0.84	6	
CENV3	-0.09	99	0.039		-2.56	0.01	1	**
CENV4	-0.02	21	0.033		-0.64	0.52	3	
OVRC1	-0.04	-0.040			-1.06	0.29	0	
OVRC2	0.01	1	0.033		0.33	0.74	3	
BIO	0.24	1	0.060		4.02	0.00	0	***
BTRVEL	-0.0	48	0.061		-0.79	0.43	2	
CTOSTAF	0.15	3	0.050		3.06	0.00	2	***
CRE	0.08	1	0.059	59 1.37		0.171		
ENGUSE	0.15	5	0.052		3.00	0.00	3	***
CEMISION	-0.02	28	0.039		-0.73	0.46	6	
FCAT	0.01	8	0.056		0.33	0.74	5	
POLAVOID	0.07	5	0.051		1.46	0.14	4	
WMGT	0.18	0	0.056		3.21	0.00	1	***
_cons	0.83	0	0.228		3.64	0.00	0	***
Mean dependent var		3.693			endent var		1.015	
R-squared		0.576		Number			322.00	00
F-test		17.569		Prob > F			0.000	
Akaike crit. (AIC)		694.305		Bayesian crit. (BIC) 78			784.89	94

^{***} p<0.01, ** p<0.05, * p<0.1



Table 6 considers the effect of various factors on the value of return on investment as the third indicator of business performance. It is examined that the value of RENV1 has shown its significant and positive influence on the return on investment in the restaurant industry of Thailand. Meanwhile, the factor of normative environmental regulation two or NENV2 has shown its positive influence on the return on investment. Additionally, factors like cognitive environment have shown their high and positive impact on return on investment. This means that among all the factors of environmental regulations, the effect of cognitive environment is the most significant. Meanwhile, factors like CRE, energy usage, and carbon emissions or CEMISION have shown their significant and positive influence on the value of business performance as measured through return on investment. The value of explained variation in terms of R² is 49.1 percent, showing the fact that due to all the explanatory variables, the impact on return on investment is near 50 percent.



Table 6Public policy for environmental issues and restaurant performance (return on investment)

bp3	Coe	f.	St. Er	r	t-value	p-va	alue	Sig.
RENV1	0.08	3	0.036		2.29	0.02	.3	**
RENV2	-0.01	16	0.042		-0.37	0.71	1	
RENV3	0.00	6	0.037		0.16	0.87	7	
RENV4	-0.03	35	0.043		-0.81	0.42	.0	
NENV1	0.05	0	0.043		1.16	0.24	.9	
NENV2	0.06	0	0.033		1.78	0.07	6	*
NENV3	-0.03	36	0.046		-0.78	0.43	6	
NENV4	-0.00)1	0.043		-0.02	0.98	5	
CENV1	0.09	0	0.046		1.98	0.04	-8	**
CENV2	0.10	2	0.041		2.48	0.01	4	**
CENV3	-0.08	37	0.042		-2.06	0.04	0	**
CENV4	-0.07	75	0.036		-2.07	0.03	9	**
OVRC1	-0.07	72	0.041		-1.73	0.08	5	*
OVRC2	0.01	0.013			0.37	0.712		
BIO	0.03	3	0.066		0.50	0.61	9	
BTRVEL	0.10	1	0.067		1.50		5	
CTOSTAF	0.03	2	0.055	0.58		0.563		
CRE	0.18	9	0.064		2.93	0.004		***
ENGUSE	0.09	5	0.057		1.67	0.096		*
CEMISION	0.16	9	0.043		3.97	0.00	0	***
FCAT	0.01	6	0.062		0.26	0.79	5	
POLAVOID	0.02	4	0.056		0.43	0.66	6	
WMGT	0.08	6	0.062		1.39	0.16	6	
_cons	0.62	2	0.250		2.49	0.01	3	**
Mean dependent var		3.652		SD dep	endent var		1.016	
R-squared		0.491		Number			322.00	0
F-test		12.514		Prob > 1			0.000	
Akaike crit. (AIC)		753.069			n crit. (BIC)		843.658	
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*** p<0.01, ** p<0.03	5, * p<	0.1						
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Table 7 considers the effect of various factors as core determinants of employee productivity to measure the business performance of the restaurant industry in Thailand. It can be observed that RENV1 and RENV4 have a positive and significant influence, while NENV4 and CENV1 have a negative influence on the productivity factors of various employees



working in the region of Thailand in the restaurant industry. For the factor of organisational commitment, the effect on employee productivity is found to be significant and highly positive. Other factors like FCAT, PLAVOID, and WMGT are found to be highly significant and positive in Table 7.

Table 7 *Public policy for environmental issues and restaurant performance (employee productivity)*

bp4	Coe		St. Er		t-value	p-va		Sig.
RENV1	0.08	1	0.034		2.38	0.01	8	**
RENV2	-0.0	17	0.040		-0.43	0.66	6	
RENV3	-0.00)5	0.035		-0.13	0.89	6	
RENV4	0.08	1	0.041		1.99	0.04	.7	**
NENV1	0.06	5	0.041		1.59	0.11	3	
NENV2	0.03	2	0.032		1.01	0.31	1	
NENV3	-0.00	62	0.043		-1.43	0.15	4	
NENV4	-0.09	97	0.040		-2.40	0.01	7	**
CENV1	0.13	2	0.043		3.08	0.00	2	***
CENV2	-0.00)2	0.039		-0.04	0.96	8	
CENV3	-0.00	50	0.040		-1.50	0.13	6	
CENV4	-0.00	01	0.034		-0.03	0.97	5	
OVRC1	0.06	8	0.039		1.75	0.08	1	*
OVRC2	0.00	5	0.034		0.15	0.87	9	
BIO	0.20	3	0.062		3.29	0.00	1	***
BTRVEL	-0.03	35	0.063		-0.55	0.58	3	
CTOSTAF	0.06	0	0.052		1.16	0.24	7	
CRE	0.11	3	0.061		1.86	0.06	4	*
ENGUSE	-0.0	18	0.053		-0.33	0.74	2	
CEMISION	0.02	1	0.040		0.51	0.60	9	
FCAT	0.12	9	0.058		2.22	0.02	.7	**
POLAVOID	0.10	9	0.053		2.06	0.04	1	**
WMGT	0.14	4	0.058		2.49	0.01	3	**
_cons	0.31	2	0.235		1.33	0.18	6	
Mean dependent var		3.780		SD depo	endent var		1.013	
R-squared	uared 0.546		Number o		r of obs	of obs		0
F-test		15.613		Prob > F			0.000	
Akaike crit. (AIC) 714.444			Bayesian crit. (BIC) 805.033			3		

^{***} p<0.01, ** p<0.05, * p<0.1



Table 8 considers the mean score of business performance and the impact of environmental regulations. It is found that RENV1 has a significant and positive influence on the value of the mean business performance of the restaurant industry. For the factors like NENV2, the effect on mean business performance is also positively significant at 5 percent. Cognitive environment factor three has a significant and negative influence on the business performance of the restaurant industry in Thailand. Factors like BIO, CTOSTSAF, CRE, energy usage and waste management have also shown their positive and significant influence on the overall business performance of the restaurant sector in Thailand.

Table 8Public policy for environmental issues and restaurant performance (mean business performance)

Mean B.P	Coef.	St. Err	t-value	p-value	Sig
RENV1	0.063	0.023	2.78	0.006	***
RENV2	-0.004	0.026	-0.15	0.879	
RENV3	0.013	0.023	0.55	0.580	
RENV4	0.016	0.027	0.58	0.560	
NENV1	0.017	0.027	0.64	0.524	
NENV2	0.047	0.021	2.26	0.024	**
NENV3	-0.029	0.029	-1.00	0.320	
NENV4	0.017	0.027	0.63	0.531	
CENV1	0.016	0.029	0.56	0.576	
CENV2	0.033	0.026	1.29	0.196	
CENV3	-0.077	0.027	-2.91	0.004	***
CENV4	-0.035	0.023	-1.55	0.121	
OVRC1	-0.031	0.026	-1.19	0.236	
OVRC2	0.013	0.023	0.56	0.574	
BIO	0.160	0.041	3.90	0.000	***
BTRVEL	0.028	0.042	0.66	0.508	
CTOSTAF	0.066	0.034	1.91	0.057	*
CRE	0.166	0.040	4.12	0.000	***
ENGUSE	0.090	0.036	2.52	0.012	**
CEMISION	0.041	0.027	1.55	0.123	
FCAT	0.051	0.039	1.32	0.188	
POLAVOID	0.036	0.035	1.03	0.302	
WMGT	0.153	0.039	3.96	0.000	***
cons	0.561	0.156	3.59	0.000	***



Mean dependent var	3.713	SD dependent var	0.859					
R-squared	0.722	Number of obs	322.000					
F-test	33.575	Prob > F	0.000					
Akaike crit. (AIC)	451.323	Bayesian crit. (BIC)	541.912					
*** p<0.01, ** p<0.05, * p<0.1								

Conclusion and Future Recommendations

This study considers the public policy factor in terms of environmental regulations and their impact on the value of business performance in the restaurant industry of Thailand. For a better understanding, descriptive, correlation and multiple regression approaches are applied, and findings are presented. It is found that for business performance like market growth, significant determinants are the regulatory environment, normative environment, and cognitive environment. Additionally, factors like biodiversity have also shown their positive influence on the value of market growth in business. Market share, commuting staff, biodiversity, and energy usage are found to be significant determinants with positive influences. For business performance in terms of return on investment, key determinants are the cognitive environment, STOSAF, CRE, and CEMISION. However, when business performance is observed in terms of the factor of employee productivity, BIO seems to have a highly significant influence on it.

Additionally, for the mean score of business performance, key determinants are the BIO, CTOSTAF, CRE and ENGUSE. They have a significant and positive influence on the restaurant industry in Thailand. In addition, the waste management factor also works better for the restaurant sector to promote their performance. These findings provide a good understanding of the promotion of better business performance in the local market. However, some limitations are also observed in the present study. Firstly, this study has only examined the primary measures of business performance and their relationship with the environmental regulations' key factors, as observed in questionnaires. Secondly, only the hotel industry was targeted while ignoring the other sectors in a similar economy. Thirdly, cross-sectional comparisons between various types of hotels, as discussed in demographic details, is also missing. Future studies can address these limitations for a better understanding and significant contribution to the literature material.



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