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The Impact of Stakeholders' Pressures on Green Strategic Intent: An Empirical Study

Ines Karra[1*] and Habib Affes[2]

[1]Department of Management Science, Faculty of Economic Sciences and Management of Sfax-Tunisia, Tunisia.
[2]Department of Business Administration Sciences, University of Sfax-Tunisia, Tunisia.

Authors' contributions

Author IK designed the study, managed the literature searches, collected the data, performed the statistical analysis and wrote the first draft of the manuscript. Author HA made the necessary corrections to the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

Aims: Climate change and environmental degradation have become a major concern in the world of business. Corporate awareness of the importance of preserving the environment contributes to the reduction of the impact of production cycles on the environment. Stakeholders exert some pressure so that firms undertake to respect the natural environment. It is then necessary to consider the impact of stakeholders' pressures on green strategic intent.
Place and Duration of Study: A study has been conducted with 62 polluting Tunisian companies. Information through questionnaires were collected during the period from March, 2013 to June, 2013.
Methodology: Methods of structural equations performed using SMART PLS 2.0 are used to test our research model.
Results: The results show the positive effect of pressure of regulators, organizational stakeholders and market on green strategic intent.
Conclusion: This research helps clarify the important role of socio-economic actors in corporate environmental responsibility and thus the development of the well-being of society in general.

**Corresponding author: Email: ines.elkarra@yahoo.fr;*

Keywords: Stakeholders' pressures; green strategic intent; eco-responsible; empirical study; PLS-approach.

1. INTRODUCTION

During the past centuries, industrial development has brought enormous wealth and prosperity while causing incidental environmental degradation such as the depletion of the ozone, global warming, desertification and toxic waste [1-2]. These climatic and ecological changes have become the major environmental concern for the contemporary world. Indeed, these changes have led to the appearance of several ecological problems. The latter constitute real threats to our lives. However, governments and public or private industrial organizations have highlighted the importance of environmental issues to improve corporate image.

In fact, the consideration of environmental issues in the overall corporate strategy can make partial or radical changes in processes and procedures adopted by organizations. The adoption of a strategic vision environmentally responsible aims to master the environmental dimension. In addition, green strategic intent aims to draw attention to the advantages of a proactive environmental strategy and mobilize efforts to improve the environmental performance of companies. This vision of environmental management justifies the interest taken in the integration of environmental dimensions into the overall corporate strategy.

It should be noted that the emphasis on environmental issues in the world business highlights the importance and urgency of reducing the impact of production cycles on the environment [3]. Although firms play an important role in the appearance of ecological problems, they could also benefit from cost reductions through ecological efficiencies of green markets development, better relations with the public community and through improving the brand image [1].

Previous research on stakeholder pressures and their impact on corporate environmental practices [4-8] and their environmental strategies [9-12] confirm the role of these pressures to pursue an environmentally responsible strategy. Firms must recognize that reducing pollution is not only for the benefit of the environment but it is also for their benefit. Industrial companies and managers must take into consideration the importance of resources and environmental actions for sustainable development and competitive advantage of firms [13]. In this connection, we pose the following research question: how do stakeholders' pressures prompt firms to act an eco- strategic intent?

Nowadays, environmental issues grab attention throughout the world. Protecting the environment has become essential and vital. This awareness of the impact of environmental degradation on the ecological balance involves individual and collective responsibility to protect and preserve the environment. In this context, the objective of this study is to identify the role of stakeholders' pressures in the adoption of an environmentally responsible corporate vision.

To achieve the already mentioned objective of our research, this paper will be divided into five sections. After introducing the topic, the next section is a theoretical framework which describes the conceptual framework and presents our hypothesis. The third one will deal with the methodology. As for the fourth section, it will be a description of our analyses results. Finally, the last section will be a discussion followed by the conclusion of this study.

1.1 Theoretical Framework

Faced with an unstable environment characterized by increasing competitive intensity and unpredictable and incomprehensible behavior, traditional business models based on adaptation and movement are no longer compatible with this new context. The movement strategies are then the most suitable for uncertainty and to a completely open environment [14]. Therefore, the strategic intent involves a process of active management to draw the attention of companies to the essence of success, the mobilization of efforts towards the achievement of a fixed and clear objective, the contribution of staff and employees to achieving this objective, to maintaining enthusiasm providing new operational orientations and making the best use of resources [15]. In addition, the strategic intent is the result of an ambitious vision of the future, and combines the resources needed to achieve one or more envisaged goals [16]. According to Thiétart [17], the company as a complex system is under pressure from several opposing forces. Similarly, Marrewijk [18] argues that this complexity raises ethical challenges. Prior, the manager is particularly interested in maximizing profits. Now, the company must take into account the interests of all stakeholders without favoring one over the other. According to him, the new role of business is to bring particular attention to corporate social responsibility and sustainable development. We will mobilize the stakeholder theory [19] to understand the reasons that companies to act with an environmentally responsible strategic intent.

For several years, the stakeholder theory has been the focus of the management literature. This theory was a response to the challenge of environmental turbulence. It is a source of new strategic opportunities for managers. Indeed, stakeholders' pressures are examined in several studies. Stakeholders can influence the strategic orientations of companies (Buysse and Verbeke [9], Berman et al. [10], Berry and Rondinelli [11]). These authors link performance and competitiveness of enterprises to taking into account the interests of stakeholders in the overall strategy of these companies. Then it follows that proactive environmental strategies of firms are associated with a greater integration of stakeholder expectations. These strategies help to increase the efficiency and competitiveness of firms. Other research suggests the influence of stakeholders' pressures on environmental management practices [4-6-20-22]. Stakeholders in particular regulators, local communities, environmental associations, consumers etc. exert pressure on firms to introduce environmental issues into their management practices. Pondeville [20-21] considers that some stakeholders have an influence on corporate environmental strategies and on environmental management practices.

Based on previous research [4-9-21], stakeholders' pressures could have a positive influence on environmentally responsible strategic business behavior. Henrique and Sardorsky [4] s' study of the relationship between environmental commitment and managerial perception of the importance of stakeholders' pressures shows that firms adopting a proactive environmental strategy grant more importance to these pressures except for media's pressure. Similarly, the results of such a study by Buysse and Verbeke [9] support the idea that firms grant a great importance to pressure exerted by regulators and international agreements. We can confirm that stakeholders' pressures influence firms' green strategic intent. Thus, we have made the following main hypothesis:

H1: Stakeholders' pressures have a positive effect on green strategic intent.

Our central hypothesis is based on two variables: the first being the stakeholders and the second green strategic intent. Indeed, the literature on environmental management has

different typologies of stakeholders. Among these typologies, we find primary and secondary stakeholders [23-9-24]. Thus, Henrique and Sadorsky [4] distinguish between regulatory stakeholders, organizational stakeholders (consumers, suppliers, employees and shareholders), communities and the media. Similarly, Pondeville [25] identifies four groups of environmental stakeholders: regulatory stakeholders, community stakeholders, market stakeholders and organizational stakeholders.

Returning to the above mentioned typology of stakeholders, we consider that the variable "stakeholders" is a latent variable. It appears that the stakeholders' pressures are a construct a priori incorporating several sub-constructs: Regulatory stakeholders, community stakeholders and organizational stakeholders. The conceptual model is shown in Fig.1.

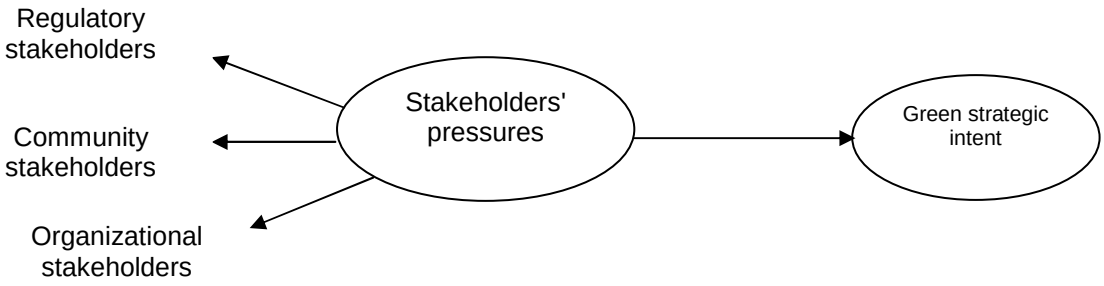

Fig. 1. The conceptual model

2. METHODOLOGY

The used research methodology is based on empirical data collected through a questionnaire sent to the Tunisian manufacturing firms. Indeed, the constitution of the sample is based on statistics compiled by the Ministry of Industry (2010) on polluting companies in Tunisia. According to these statistics, almost 20% of the industrial Tunisian companies are polluting and among the latter 70% are classified as highly polluting. Indeed, highly polluting firms have approximately 500. The sectoral distribution of these companies shows that the majority operates in the food industry, chemical industry, textile and clothing, and in the leather industry and footwear. For the purposes of our research, the majority of firms in our sample are among these 500 companies. A pre- test of the questionnaire is planned with 10 firms from various industries. Some changes have been introduced to the questionnaire to make its content clearer. The final questionnaire version was sent to a sample of 300 industrial Tunisian companies. The administration of the questionnaire was conducted through the following modes: Face to face administration, administration by e-mail and fax. The questionnaire is addressed to entrepreneurs and environmental managers. Out of the 300 companies surveyed, 62 responded to the questionnaire, which represents a response rate of 20.66%. The distribution of firms by industry and number of employees is shown in Table 1 and Table 2.

2.1 Constructs Measures

Both Tables 3 and 4 presents the instruments and variables used to measure each construct. Stakeholders' pressures Table 3 are measured by thirteen items used by Henriques and Sadorsky [4], Buysse and Verbeke [9] and Pondeville [22]. Respondents are asked to indicate the level of influence of different stakeholders through using a five-point

Likert-type scale (1=no influence, 5=extremely influence). A high score indicates more influence of different stakeholders.

The green strategic intent Table 4 is measured by six items developed by Henrique and Sadorsky [4]. Respondents were asked to indicate the degree of priority for their firms to using the following statements on a five-point Likert-type scale (1=low priority, 5=essential): the presentation of a written document describing their environmental policy, environmental objectives, communication of environmental policy to employees and other stakeholders, the availability of an environmental department and environmental manager.

Table 1. Description of participant compagnies

Industry categories	n	%
Agro-food industries	12	19.4
Building materials, ceramic and glass industries	3	4.8
Mechanical and metallurgical industries	3	4.8
Electrical, electronic and household appliances industries	6	9.7
Chemical industries	27	43.5
Textile and clothing industries	2	3.2
The wood, cork and furniture industries	1	1.6
Leather and footwear industries	4	6.5
Diverses Industries	4	6.5
Total	62	100

Table 2. The frequency distribution by number of employees

Number of employees	Number of enterprises	%
10-50	19	30.6
50-100	11	17.7
100-150	5	8.1
150-250	10	16.1
250 et plus	17	27.4
	62	100.0

To check the quality of measure scales, two steps are envisaged; exploratory factor analysis (EFA) and confirmatory factor analysis (CFA). The first is carried out by means of principal component analysis (PCA). The latter aims to extract the main factorial axes and retain only those variables whose factor loadings are greater than 0.5. Thus, to check the reliability of each construct, we examined Cronbach's alpha. The internal validity of each construct is delivered to a value greater than 0.7 [26-27]. The results of the PCA after varimax rotation of the thirteen items measuring stakeholders' pressures show the existence of three factors with eigenvalues greater than 1. These factors explain 64.290% of the variance with a coefficient Cronbach alpha[1] [28] of 0.872. The first includes the regulators, the second represents the community stakeholders, and the third is related to organizational and market stakeholders. In addition, this analysis shows the one-dimensional nature of the green strategic intent variable with a total variance extracted equal to 78.884% and a Cronbach's alpha equal to 0.945.Tables 3 and 4 shows the results of the principal component analysis.

[1]*The Cronbach's alpha is used for consistency indicator scales more than 3 items; the Pearson correlation coefficient is applied in case of 2 items [28, p.55].*

Table 3. Stakeholders

Items	Factor 1 Regulatory stakeholders	Factor2 Community stakeholders	Factor3 Organizational and market stakeholders
STAK01 Governement	0.739		
STAK 02 Environmental agencies	0.850		
STAK 03 Local communities		0.707	
STAK04 Environmental associations		0.821	
STAK05 scientific institutes		0.738	
STAK06 Press/medias		0.689	
STAK07 Consumers			0.818
STAK08 Suppliers			0.875
STAK09 Owners/ Shareholders			0.693
STAK10 Employees			0.540
STAK11 Buyers (firms)			0.734
STAK12 Competitors			0.723
STAK13 Professional associations			0.540
KMO		0.736	
Variance extracted %		64.290	
P:Bartlett Test		0.000	
Cronbach alpha		0.872	

Table 4. Green strategic intent

Items	Factor loadings	Communality factor analysis
INT1 Submission of a written document describing the environmental policy	0.876	0.768
INT2 Clear environmental objectives	0.909	0.826
INT3 Communication of environmental policy to employees	0.913	0.833
INT4 Communication of environmental policy to other stakeholders	0.826	0.682
INT5 Having a department for the control, monitoring environmental impacts and problem solving	0.899	0.809
INT6 Having an environmental manager	0.903	0.816
KMO	0.894	
Variance extracted %	78.884	
P:Bartlett Test	0.000	
Cronbach alpha	0.945	

In addition to the purification of the measuring instrument using the principal component analysis (PCA), it is recommended to use the confirmatory factor analysis (CFA) to confirm the underlying factor structure. However, the CFA examines three elements necessary to determine the latent structure of all latent variables, reliability (using rho of internal

consistency proposed by Joreskog [29]), convergent validity (estimate Average Variance Extracted AVE proposed by Fornell & Larker [30], must be greater than 0.5) and discriminant validity. This analysis is performed using 2.0 SMART PLS. Table 5 shows that the reliability and convergent validity of the different constructs are confirmed.

Table 5. Reliability and convergent validity

Latents variables	Items	Factor loadings	Test Student
Green strategic intent	INT1	0.880294	22.089435
α=0.946192	INT2	0.911604	25.282961
ρ=0.957174	INT3	0.833974	20.659910
AVE=0.788506	INT4	0.910392	24.561924
	INT5	0.892963	25.322216
	INT6	0.896318	25.251494
Regulatory stakeholders	STAK01	0.817264	11.550186
π=0.526	STAK02	0.919780	18.563351
ρ=0.861254			
AVE=0.756958			
Community stakeholders	STAK03	0.790463	7.337695
α=0.790331	STAK04	0.880579	10.413224
ρ=0.864364	STAK05	0.687727	5.445935
AVE=0.616188	STAK06	0.769111	5.181528
Organizational and market stakeholders	STAK07	0.802756	10.592934
α=0.867549	STAK08	0.820169	6.645985
ρ=0.897483	STAK09	0.753171	9.890288
AVE=0.557266	STAK10	0.644646	5.703949
	STAK11	0.780236	10.660502
	STAK12	0.728612	7.514682
	STAK13	0.679183	8.264497

α: Cronbach's alpha; ρ:rho Joreskog ; AVE: average variance extracted; π : Pearson correlation coefficient

The discriminant validity test is performed based on the approach of Fornell and Larker [30]. Discriminant validity is checked when shared variances of each model construct and its indicators are higher than the shared variance between this construct and other indicators. Table 6 shows that the discriminant validity of the different constructs of our model is confirmed.

Table 6. Discriminant validity

	Variables	1	2	3	4
1	Green strategic intent	0.788506			
2	Regulatory stakeholders	0.497385	0.756958		
3	Community stakeholders	0.292716	0.485768	0.616188	
4	Organizational and market stakeholders	0.487079	0.392741	0.424247	0.557266

3. RESULTS AND DISCUSSION

3.1 Structural Model and Hypothesis Test

The structural model, also called internal model, represents the relationship between the latent variables. According to Hair [31,p.147;32,p.426], the criteria for structural model assessment are the R_2 measures, their importance[2] [33] and the significance of the regression coefficients using T-Student. A low value of R_2 shows that the model is unable to explain the endogenous latent variable. We must ask the question about its theoretical foundations [34,p.303]. Hypotheses testing are based on analyses of structural equations modeling performed using SMART PLS 2.0. The structural model shows an acceptable value of R_2 is 34.93 %. This result shows the good fit of the model. The regression coefficients between the variables measure the importance of causal relationship. According to Hair [31,p.145], the meaning of the latter is measured by T-student (using a two-tailed test with a significance level of 5%, T-statistics is larger than 1.96). At the PLS approach, the importance of each coefficient is evaluated according to a resampling procedure called Bootstrap. Table 7 presents the results of the full model in terms of regression coefficients. The examination of the results shows that the regressions of the two variables the Regulatory stakeholders, the organizational and market stakeholders on the green strategic intent variable are significant at the threshold of 5% with T-statistics greater than 1.96. Regarding the relationship between community stakeholders and green strategic intent, it is rather not significant.

Table 7. Bootstrapping report-path coefficient

	Original Sample	Sample Mean	Standard Deviation	Standard Error	T-Statistics
Regulatory stakeholders -> Green strategic intent	0.377787	0.377227	0.049823	0.049823	7.582518
Community stakeholders -> Green strategic intent	-0.042068	-0.036391	0.051719	0.051719	0.813387
Organizational and market stakeholders -> Green strategic intent	0.356554	0.355758	0.048913	0.048913	7.289591

3.2 Discussion

In this article we tested a model of the influence of stakeholders' pressures on corporate green strategic intent. More specifically, we used a structural equation model to study the effect of the pressures of regulators, community stakeholders, organizational and market stakeholders on the green strategic intent.

A number of theoretical, practical and social contributions and social practices can be drawn from our results. From a theoretical perspective, this study contributes to the literature of environmental management by providing the role of stakeholders in the context of environmental responsibility. However, changes in the relationship between business, the actors who make up society and the environment in which we live are envisaged.

[2] *Chin [33, p.323) describes the R_2 values in the PLS models, values near 0.67 are substantial; equal 0.33 they are medium and low when below 0.19.*

Numerous studies have dealt with the concept of corporate environmental strategy. In fact, our study contributes to the literature of environmental management by providing an empirical basis for the adoption of an eco-responsible corporate vision. Our results reflect the role of stakeholders in the development of corporate environmental responsibility.

Thus, from a practical point of view, the importance of environmental protection in the world and the development of environmental awareness of the different actors in society prompt firms to mobilize all efforts towards achieving a specific goal: becoming a green company.

In addition, this study has important social implications. Given that corporate green strategic intent results from strong stakeholders' pressures, this could improve the well- being of society to live in a healthy environment and to preserve the natural resources in the world.

The obtained results show the dependence of corporate strategic intent on the pressures exerted by regulators, the organizational and market stakeholders. Indeed, regulators impose environmental laws and directives on firms. Organizational and market stakeholders impose pressures which are related to the organization and competitiveness of the firm.

These results are positive, which confirms the role of environmental actors in the development of environmental responsibility. This research has helped to clarify the concept of corporate green strategic intent and the role of society in preserving the environment.

Indeed, the results of our research have not yielded significant results regarding the relationship between community stakeholders and green strategic intent. This could be due to the limited power of associations and environmental communities in our country. This non-significant result does not deny that this relationship exists theoretically.

4. CONCLUSION AND LIMITATIONS

Environmental management has become a major concern in the world of business. This concern affects the strategic orientations of the firm. Our research shows that stakeholder theory is a conceptual framework adapted to understand the influence of socio-economic actors on corporate green strategy. We relied on the typologies of stakeholders presented in the literature of environmental management [23-9-4-5-24]. Following the work of Buysse and Verbeke [9], Henrique and Sadorsky [4], Pondeville [25], our results suggest the relationship between stake holder pressures and eco-responsible strategies. Indeed, according to this study, the pressures of the regulators, organizational and market stakeholders influence corporate behavior (to act according to an eco-strategic intent). Although the obtained results show the role of social-economic actors in the development of corporate environmental responsibility, there may be other configurations with other categories of variables that explain the green strategic intent. Even a sufficiently robust model cannot completely represent the reality of the proposed relationship.

However, the results reflect stakeholder pressures exerted on polluting firms belonging to a developing economy. These results cannot be generalized to larger economic systems.

Future research could include a more comprehensive set of variables (perceived benefits, socio-organizational eco-responsible maneuvers, etc.) in order to better understand the intent of adopting an eco-responsible strategy. Thus, it would be important to link this environmentally responsible vision with business engagement in an eco-responsible approach for sustainable development.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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