



Article

# Institutional Pressures and Circular Economy Target Performance: Are Zero Waste Practices and Enviropreneurship Worth Pursuing?

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**Abstract:** The continuous worsening environmental pollution and rapid depletion of natural resources exerts pressures on the economies to adopt circular economy principles in order to improve and protect the natural environment. Given the importance to humanity and social responsibility, this study examines how CETP is achieved through zero waste practices and IP. Zero waste practices are also tested as a mediator between IP and CETP. Furthermore, we also tested the moderating role of enviropreneurship on the relationship between zero waste practices and CETP. Data were collected from 273 front-line managers of manufacturing concerns and analyzed through SPSS 25.0 and SEM. Results proved that IP plays an essential role in explaining CETP and zero waste practices. Zero waste practices directly affectCETP, and also act as a mediator between IP and CETP.

Keywords: institutional pressures; zero waste practices; circular economy target performance; enviropreneurship



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## 1. Introduction

The continuous deterioration of natural resources and increasing level of global warming and environmental pollution [1] have forced economies to adopt mechanisms that ensure the protection of natural resources and human well-being [2]. In this regard, circular economy principles have strategic importance for business organizations to cope with the changing environmental circumstances [3]. Circular economiesarebased on the mechanism through which business organizations efficiently utilize their resources for purchasing, production and reprocessing [4]. Circular economies are embedded in a series of business operations and practices that ensure environmental sustainability [5]. Therefore, circular economy target performance (CETP) has gained strategic importance for the business world in the recent decades [6]. In today's business world, it has been largely acknowledged that stakeholders demand the incorporation of operational strategies, i.e., zero waste practices [5,7]. Stakeholders' tendencies toward the protection of the natural environment exerts pressure on business organizations to implement zero waste practices in order to respond to various stakeholders' growing demands for the protection of the natural environment and to fulfill the regulatory requirements [8]. There exist multiple social and cultural pressures that stimulate organizations to develop plans for the protection of the natural environment that are ecological and zero waste business strategies. Most of the research in the field of the natural environment extensively considered zero waste practices; however, limited empirical studies focused on its preconditions and determinants. The IP receive scholarly

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attention and stimulate organizations to concentrate on CETP. DiMaggio and Powell [9] presented an institutional theory and propounded significant justifications and understanding about organizational actions [10]. Institutional theory highlighted three main forces, i.e., coercive force, mimeticpressures and normsthat induce organizations to respond in a positive way. However, these three pressures are key foundational determinants to adopt zero waste practices and improve CETP [11]. The association between IP and CETP is rarely deliberated in the existing literature; however, some empirical deliberation on the indirect link between IP and environmental performance is available [12,13]. Therefore, this is an emerging area in the field that requires in-depth empirical inquiry to recognize the clear relationship between IP and CETP, and the aim of this study is to consider this research gap.

It is self-evident that modern organizations achieved CETP with the help of corporate level practices which support the social, economic and environmental stance [14]. Therefore, a new approach named zero waste practices has emerged due to the incorporation of environmentally friendly practices as one of the important elements of strategic business decisions [7]. Existing studies deliberated that organizations gained sustainable improvement for CETP through zero waste practices [1,2]. Although there is an emergent scholarly attention in studying zero waste practice mechanisms and their possible benefits to different stakeholders, so far, limited studies have been taken to explore the outcomes of zero waste practices. The CETP appeared as an emerging ecological stance that is essential for the protection of the natural environment, which is the outcomes of zero waste practices.

The CETP becomes necessary for organizations to meet the demands of stakeholders [6]. CETP gained strategic importance for the business world in the recent decades. In today's business world, it has been largely acknowledged that stakeholders exert pressure on businesses for the formulation of zero waste practices [7]. The existing literature recommends that zero waste practices have significant predictors of CETP [11]. However, for the achievement of CETP organizations must incorporate environmental thinking into zero waste practices at all operational processes, such as material procurement, product design, production process, product end-of-life and delivery and packaging [6,11].

The aim of the current study was to highlight the role of IP and zero waste practices for the enhancement of CETP of manufacturing concerns. This study analyzed the role of IP for the formulation of zero waste practices, which in turn helps the business gain CETP. This study would be helpful for the management of manufacturing concerns to respond to the various stakeholder demands regarding the natural environment in order to improve the CETP. The current study proposes the direct effect of IP on zero waste practices and CETP. Furthermore, this study also highlights the intervening role of zero waste practices between the IP and CETP link. Finally, the moderation viaenviropreneurship checked. The current study is broken up into five different sections. The first section is an introduction and the second section covers background information, studies of literature and methodology. The results are discussed in Section 3 of the current study. Sections 4 and 5 address the discussion and conclusions of the study.

#### 2. Literature Review

# 2.1. IP and CETP

DiMaggio and Powell [9] proposed an institutional theory and suggested substantial and valuable arguments and in-depth understanding of external forces that have major influence on the decision making of an organization. Institutional theory focuses on the notion of the organizational field and classified it into three main categories, i.e., coercive, normative and mimetic. These three pressures/forces have the influencing power to form the organizational strategies, actions and decisions [8]. Coercive pressure is defined as pressure exerted on a specific organization by other organizations [9]. Coercive pressures are comprised as firm-specific and industry-specific pressures. Existing studies [15] disclose that coercive pressures in the form of regulatory pressures have significant effect on an organization's ecological stance. Besides regulatory pressures such as legal requirements, this

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includes customer expectations and various stakeholders' requirements whose demands must be satisfied in order to accomplish legitimacy [8,9]. On the other hand, normative pressures are the outcomes of professionalization [16]. Normative pressures have three sources which include professional networks, industry relations and educational institutions. These pressures have influential rolesin the decisions of the businesses regarding the natural environment. Mimetic pressures are concerned with organizational efforts to imitate the actions of other firms due to their best performance in the market [17]. Organizations imitate the behavior of other firms due to reasons such as complex customer demand, limited market experience, insufficient organizational capabilities and an unpredictable business environment [18]. These pressures compel organizations to adopt the principles of the circular economy in order to sustain their environmental performance and remain competitive [19].

Institutional forces are the primary concern that affects the CETP of the firms in a more positive way [20]. Therefore, IP are the significant predictor of CETP. The coercive dimension of IP is a positive determinant of the EP of an organization [21]. Those organizations who fail to respond to these forces successfully have outcomes that threaten legality; therefore, organizations pay attention to these forces in order to increases CETP. On the other hand, mimetic forces also improve the organization's perspective towards the natural environment. IP induces organizations to adopt friendly environmental strategies regarding their products and processes which are in line with the natural environment [22]. The following hypothesis was formulated for the current study:

**H1.** *IP has a significant relationship with CETP.* 

#### 2.2. IP and Zero Waste Practices

Existing studies explained various factors that encourage organizations to formulate strategies and practices that support the natural environment [8]. IP are also one of the important factors that exert pressures on business organizations for zero waste practices [23]. IP influences organizations in the form of coercive, normative and mimetic forces. IP such as pressures from suppliers, customers and regulatory authorities compel organizations to formulate zero waste practices [24]. However, the environmental perspectives of various stakeholders also exert pressures which compel organizations to develop friendly environmental practices such as zero waste practices [25]. IP forced organizations to make relationships with their stakeholders for the formulation of environmental strategies [26]. An organization's relationship with various stakeholders provides information about the stance of stakeholders regarding environmental sustainability, and then the organization can respond accordingly, which is meaningful for the development of zero waste practices. The following hypothesis was formulated for the current study:

H2. IP has a significant relationship with zero waste practices.

# 2.3. Mediating Role of Zero Waste Practices

It has been largely acknowledged that CETP gained strategic importance for the success of an organization [27]. The reason behind this acknowledgment is IP exerted by various stakeholders [22]. For a positive response to these pressures and to successfully meet the demands of various stakeholders, organizations formulate strategies for the improvement of CETP. Business organizations introducing green and zero waste practices in their operations are highly following the stakeholder theory [28]. Considering this theory, businesses are required to adopt such practices that are beneficial for the environment as it is the basic demand of stakeholders [29]. The involvement of stakeholders in green and zero waste practices makes it obligatory for the company to adopt them too. Stakeholders' priority to green practices must be focused on by the company in their actions. Institutional forces are the primary concern that affects the environmental stance of firms in a more positive way [30].

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Zero waste practices are a valuable organizational resource that further contributes to CETP [31], and zero waste practices act as mediation for the association between IP and CETP. There are two basic reasons for the mediating effect of zero waste practices between the IP and CETP link. The first logic is that IP compels organizations to engage in more green and zero waste practices that play important role for CETP [32]. The second reason is that various external forces exert pressure on the firm to manage, direct and implement strategies and practices that contribute to the protection of the environment and, thus, enhances the CETP [26,33].

**H3.** *Zero waste practices have a direct impact on CETP.* 

**H4.** The relationship between IP and CETP is mediated by zero waste practices.

## 2.4. Moderatoin of Enviropreneurship

Enviropreneurship is stated as an entrepreneurial orientation that addresses environmental related issues and provides awareness toward environmental and societal needs [34]. Organizations' operational efficiencies are increased with the help of enviropreneurial strategy, which helps for achieving societal and environmental awareness [35]. Excessive awareness and sensitivity of the natural environment can positively contribute to the sustainable practices of an organization [36]. Enviropreneurship capability, along with other valuable resources, plays an important role in the formulating of environmental related strategies [37]. Therefore, enviropreneurship strengthens the effect of zero waste practices on CETP by providing necessary information about various stakeholders' perspectives regarding the protection of the natural environment.

Enviropreneurship is a management tendency toward environmental related activities and awareness [37] and considers environmental orientation that addresses the needs of environmental activities [35,38]. Top management becomes a source of shifting the business operations toward innovative ways, particularly considering environmental and societal needs [37,39]. Besides giving importance to the environmental aspect, management can utilize environmental knowledge as input for making environmental related strategies such as zero waste practices [40,41]. Enviropreneurship is an important capability for achieving societal and environmental awareness [39] that is embedded in an organization's practices and routines [42]. Organizations successfully accomplish CETP when they have valuable knowledge about the environmental changes demanded by various stakeholders. Enviropreneurship helps the alignment of zero waste practices toward CETP. On the basis of these arguments, it is anticipated that enviropreneurship has an important effect on the relationship of zero waste practices and CETP, i.e., if there is a high level of enviropreneurship capability, zero waste practices positively and strongly contribute toward CETP, while, if the top management has lower enviropreneurship capability, then a weaker relationship is expected between zero waste practices and CETP.

**H5.** Enviropreneurship moderates the connection between zero waste practices and CETP.

## 2.5. Theoretical Framework

Figure 1 shows the relationship between constructs used in the current study. In the current study we used four variables, i.e., IP (independent variable), zero waste practices (mediating variable), enviropreneurship(moderator variable) and CETP (dependent variable).

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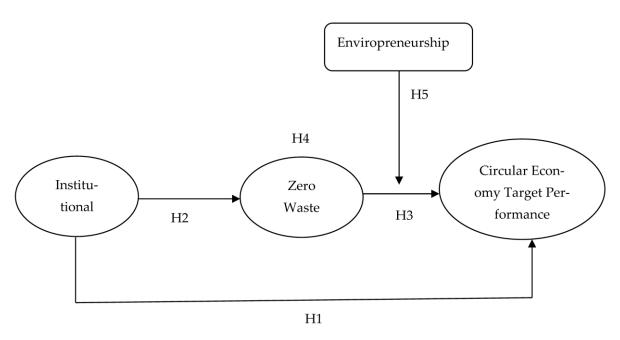


Figure 1. Theoretical Framework.

## 3. Methodology

The current study is based on cross sectional design and we tested the study hypotheses with the help of the Structural Equation Modeling (SEM) approach. Furthermore, correlation analysis was conducted to confirm the correlation among the study constructs. Coefficient of correlation determined the direction of the relationship between variables in one to one relation, irrespective of their significant level or to what extent one variable depended on another variable. After the confirmation of direction, in the next step we conducted the SEM to find the significance and strength of dependency of one variable to another variable.

# 3.1. Sample and Procedure

For the purpose ofthecurrent study, we approached the Ministry of Chamber of Commerce in order to elucidate the research objectives and obtain data collection permission. Front-line managers of manufacturing businesses with 2 years of experience were included in the sampling frame. A list of 1860 front-line managers was provided by the representatives of the Ministry of Chamber of Commerce. The list contained the names, mailing address, email addresses and designations of the respondents. With the help of systemic random sampling, every fifth respondent was selected as a study sample. The current study considered the privacy of the selected participants regarding the information they were shared during data collection.

Data were collected from the respondents through an online procedure using the application Google Docs. For this purpose, online survey forms were designed. To overcome the issue of common method bias we administered surveys in two waves, i.e., T1 and T2 with a temporal interval of two weeks [43]. Weblinksused for the surveys were sent to the selected respondents via email. The questionnaire was designed in both English for the better understanding of the constructs (Questionnaires' items are presented in Appendix A). Respondents were approached between January and April 2022 via email. In the first wave (T1), the survey was administered to512 respondents selected as a study sample. During (TI), data were collected on IP, zero waste practices and enviropreneurship. During the first wave, only 312 useable responses were received, having a 60.94% response rate. With the interval of two weeks, the second wave (T2) of data collection was initiated. In the second wave, the survey was administered to only 312 respondents. The managers were requested

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to rate the CETP of their organizations. Finally, 273 responses were finalized which are complete in all respects.

## 3.2. Study Measures

## 3.2.1. IP

In order to obtain the responses of respondents regarding the construction of IP, we used 16 items in the study survey. This16 item scale was adapted from the research work of Zhu and Geng [16] and Phan and Baird [30]. The items generated  $\alpha$  value of 0.79.

# 3.2.2. Zero Waste Practices

In order to obtain the responses of respondents regarding the construction of zero waste practices, we used 07 items in the study survey. This 07 item scale was adapted from Zaman [44].

#### 3.2.3. CETP

The responses regarding CETP were obtained with the help of 06 items developed and validated by Bai and Sarkis [6]. These items generated an alpha value of 0.81.

# 3.2.4. Enviropreneurship

Enviropreneurship was used as a moderating variable and was measured with a five-item scale, which was adapted from the work of Menguc and Ozanne [45]. The alpha value of 0.80 was generated.

#### 4. Results

In the first step of the study analyses we confirmed the correlation between constructs using the coefficients obtained through the correlation analysis. Table 1 shows the coefficients of correlation confirmed the positive direction of relationship among all the study constructs.

Table 1. Correlation and descriptive statistics.

Constructs	Mean	SD	1	2	3	4	5	6	7	8
Gender	0.11	0.83	1							
Age	35	_	0.09	1						
Work experience	2.8	0.86	0.08	0.03	1					
Education level	2.6	0.93	0.06	0.05	0.04	1				
Institutional pressures	3.9	0.95	0.09	0.11	0.06	0.07	1			
Żero Waste Practices	3.6	0.93	0.07	0.09	0.03	0.05	0.34 **	1		
CETP	3.9	0.97	0.05	0.07	0.08	0.09	0.23 *	0.32 **	1	
Enviropreneurship	3.7	0.92	0.09	0.03	0.06	0.09	0.27 **	0.25 *	0.19 *	1

Note: SD (Standard Deviation); CETP (Circular Economy Target Performance). \*\* = p < 0.000 \* = p < 0.05.

The findings revealed that IP has significant positive direction toward zero waste practices, enviropreneurship and CETP (0.34, 0.27 and 0.23), respectively. Furthermore, zero waste practices also have positive direction with enviropreneurship and CETP (0.25 and 0.32), respectively. Finally, enviropreneurship, which moderates on zero waste practices and CETP link, is also positively correlated with CETP (0.19). Based on the findings of the correlation analysis, in the next step we tested the study hypotheses with the help of path analysis.

## 4.1. Construct Reliability and Validity

The outcomes presented in Table 2 confirmed that construct validity and reliability established as the values of Alpha, Loading, CR and AVE meet threshold level, proving that reliability and validity is not an issue.

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**Table 2.** Validity Test.

	Item	Alpha	FL	CR	A-V-E
Institutional pressures	16	0.81	0.74-0.92	0.84	0.70
Zero Waste Practices	07	0.78	0.72 - 0.90	0.82	0.73
CETP	06	0.83	0.78 - 0.92	0.86	0.75
Enviropreneurship	05	0.76	0.73-0.95	0.83	0.71

Note: CETP (Circular Economy Target Performance).

## 4.2. Hypotheses Testing

After the satisfactory results of correlation, reliability and validity for the study constructs, in the next step we tested the study hypotheses with the help of SEM. The outcomes of SEM are presented in Table 3.

**Table 3.** Results of SEM (Path Analysis).

Specifications	Estimates	L.L	U.P
Standardized direct impact			
$IP \rightarrow CETP$	0.26 *	0.13	0.18
$IP \rightarrow Zero Waste Practices$	0.41 *	0.22	0.34
Zero Waste Practices $\rightarrow$ CETP	0.33 *	0.25	0.40

Note: \* = p < 0.000.

The current study formulated five hypotheses, of which three hypotheses proposed direct relationship. Table 3 contains the outcomes of the direct relationship between IP, zero waste practices and CETP. The findings of the path analysis confirmed that IP has direct and significant positive effect on CETP (0.26\*). These findings accepted the proposed relationship of study H1. Secondly, the study H2 proposed direct association between IP and zero waste practices. The findings also confirmed that the proposed direct relationship between IP and zero waste practices is positive at a significant level (0.41\*). Therefore, we accepted the study H2. Finally, we proposed direct effect of zero waste practices for CETP. The outcomes of the path analysis also confirmed the direct effect of zero waste practices on CETP. The findings presented in Table 3 revealed that zero waste practices has positive significant effect on CETP (0.33\*). Hence, we accepted the study H3.

Furthermore, the study H4 formulated the mediation effect of zero waste practices between IP and CETP. The mediating role of zero waste practices was tested through the indirect effect of zero waste practices using SEM with the help of path analysis. The findings presented in Table 4 show that the standardized indirect effect of zero waste practices was significant for the direct effect of IP and CETP (0.18\*). On the basis of outcomes generated through the path analysis of the indirect effect of zero waste practices, we accepted the study H4.

Table 4. Results for indirect effect of zero waste practices.

Fstimate	I.I.	UP
20th de	22	
0.13	0.05	0.27
0.44 *	0.39	0.58
0.33 *	0.19	0.50
Standardized indirec	t effects	
0.18 *	0.07	0.27
	0.44 * 0.33 * Standardized indirec	0.13 0.05 0.44 * 0.39 0.33 * 0.19 Standardized indirect effects

Note: \* = p < 0.000.

The findings of the moderating effect of enviropreneurshiparepresented in Table 5. The outcomes of hierarchical regressions revealed that enviropreneurship is significantly moderate on the association between zero waste practices and CETP. The analysis was conducted using three steps. In the first step, control variables were regressed for CETP. In the second step, along with control variables, we included the independent variable (zero waste practices) and moderating variable (enviropreneurship) in the regression. Finally,

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we included the interaction term, i.e., zero waste practices x enviropreneurship in the regression to observe the strength of the moderation effect of enviropreneurship. As per the suggestion of Aiken et al. [46], we also conducted slope analysis. Figure 2 reveals that zero waste practices increase CETP in the existence of enviropreneurship. The findings revealed that enviropreneurship is positively moderate on zero waste practices and CETP links. Hence, we accepted the study H5.

**Table 5.** Outcomes of moderation analysis using hierarchical regressions.

	Step 1	Step 2	Step 3
Moderation of Enviropreneurship			
Gender	0.030	0.012	0.008
Age	0.025	0.022	0.018
Work Experience	0.009	0.007	0.008
Educational Level	0.035	0.036	0.044
Institutional pressures		0.32 **	0.35 **
Enviropreneurship		0.24 **	0.28 **
Zerowaste practices x enviropreneurship			0.26 **
$R^2$	0.008	0.193	0.199
Adjusted R <sup>2</sup>	0.005	0.161	0.177
$\Delta R^2$	0.009	0.165	0.030
$\Delta$ F	4.174	79.61	17.23

Note: \*\* = p < 0.000.

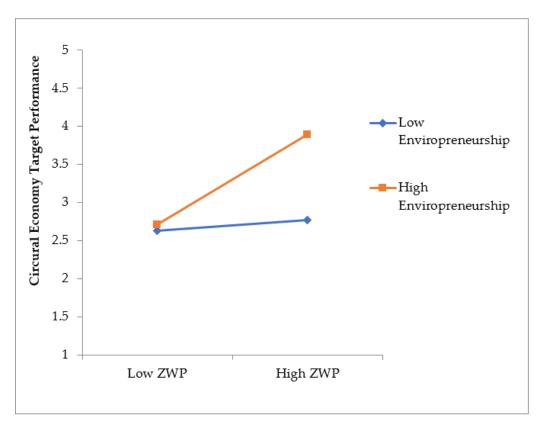


Figure 2. Slope Analysis.

# 5. Discussion

The study in hand sought to determine manufacturing concerns' degree of CETP with the help of SEM analysis, and in line with study findings, we established a comprehensible tendency toward CETP. As [47] documented, organizational stance in the 1990s was mostly focused on growth, international commerce and business expansion, without the consideration for environmental issues. However, deliberation on these environmental issues

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was considered by various scholars who studied the organizational strategies and practices toward environmental protection [29,31].

Therefore, the current study proposed five hypotheses that are statistically significant. The proposed hypotheses contained both direct and indirect relationships among the study constructs. For instance, the study H1 confirms that IP have statistically significant direct effects on the CETP of manufacturing concerns (H1. IP $\rightarrow$ CETP = 0.26). These findings suggested that business organizations are committed to improve CETP in response to various stakeholders demands. The findings of the current study are in line with the existing studies regarding the pressures exerted by various stakeholders for the improvement of the environment [16].

The study H2 proposed the relationship of IP and zero waste practices. The findings based on SEM analyses also confirm that IP directly and significantly determines the zero waste practice activities of business organizations (H2. IP $\rightarrow$ zero waste practices = 0.41). Business organizations go for green practices to satisfy customers, suppliers, employees and government agencies. In this regard, business organizations include zero waste practice options in the circular economy [4,5]. The outcomes of study H2 suggested that IP perceived by business organizations are the foundation for green business strategies including zero waste practices.

As the study H3 proposed, there is a direct effect of zero waste practices on CETP. Therefore, the research finding provides evidence for the direct effect of zero waste practices on the CETP of manufacturing concerns (H3. Zero waste practices  $\rightarrow$  EP = 0.33). The direct impact of zero waste practices on CETP suggested that business organizations enhance CETP through zero waste practices. Incorporation of green business strategies makes it possible for business organizations to improve CETP with the help of friendly environmental business operations [11].

The study in hand also proposed the indirect effect of IP on the CETP of manufacturing concerns. The results support the proposed mediating role of zero waste practices between IP and CETP link. For instance, the study H4 confirms that IP have statistically significant indirect effects on the CETP of manufacturing concerns (H4. IP $\rightarrow$ zero waste practices $\rightarrow$ CETP = 0.18). These findings suggested that IP are the foundational forces for the CETP of business organizations, not the sole factor for the improvement of CETP, because without the incorporation of zero waste practices organizations are unable to protect the natural environment.

Finally, this study also proposed the moderating role of enviropreneurship on the association between zero waste practices and the CETP of manufacturing concerns. H5 of the study proposed that enviropreneurship strengthened the effect of zero waste practices on CETP. The outcomes of hierarchical regression analyses statistically confirm that the interaction term has a significant effect on EP (H5. Zero waste practices x enviropreneurship = 0.26).

## 5.1. Theoretical Contribution

Manufacturing concerns are operated in an open system where these concerns respond to various stakeholders including customers, suppliers and government institutions. Hence, strict environmental regulations regarding the protection of the natural environment in response to manufacturing concerns formulate strategies based on the approach of zero waste practices. Therefore, this research theoretically contributes to the existing literature on zero waste practices that play a dominant role in the improvement of CETP. This study also contributes by explaining the role of IP for the formulation of operational strategies based on a zero waste practices approach. To achieve these objectives we developed a comprehensive research model for manufacturing concerns in order to test both the direct and indirect impact of IP on CETP. Secondly, we also investigated how IP stimulates business organizations to formulate business strategies based on a zero waste practices approach. This study contributes to the literature as there are no studies which present such a relationship.

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Third, the important contribution of this study is to highlight the indirect effect of IP on stimulating manufacturing concerns for the adoption of zero waste practice mechanisms. A zero waste practices approach is an important environmentally friendly business strategy that enables the business organization to respond to the various environmental related demands of stakeholders [48,49]. However, limited deliberation has been made in the existing literature for the role of zero waste practices, particularly regarding their determinants and outcomes. Therefore, this study contributes to fill this gap by examining IP as potential determinants of zero waste practices and CETP as an outcome. The findings support the study's proposed assumptions regarding the determinant and outcome of zero waste practices and extend the scarce existing literature on this specific topic.

Finally, the current study also explains the moderating role of enviropreneurship and contributes to the existing literature. To implement zero waste practices there is dire need of management initiatives and awareness regarding the protection of the natural environment. Enviropreneurship has an influencing role on the formulation of business practices [34,36]. Therefore, enviropreneurship strengthens the organizational stance towards CETP through the adoption of zero waste practices.

#### 5.2. Practical Contribution

The current study recommends that the management of manufacturing concerns must concentrate on the stance of stakeholders regarding the protection of the natural environment. First, the findings suggested that management can improve the CETP in response to IP via zero waste practices. By doing so, CETP can only be achieved when organizations adopt a zero waste practices approach.

It is self-evident that IP will set strong foundation for developing both CETP and zero waste practices. CETP related to the extent to which an organization makes efforts for the protection of the natural environment by adopting environmentally friendly business practices. Hence, CETP is achieved with IP through organizations formulating zero waste practices, doing the right things, and avoiding wrong doings. Organizations exercise green and zero waste practices and concentrate on the demands of stakeholders regarding the environment.

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**Informed Consent Statement:** Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: Not Applicable.

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Conflicts of Interest: The authors declare no conflict of interest.

# Appendix A

Zero waste

Our firm

- (1) design products for reuse;
- (2) design products for recycling;
- (3) motivate and provide training to our customers toward sustainable consumption;

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- (4) train our employees about sustainable production practices;
- (5) engage with suppliers that use zero waste extraction and processes;
- (6) recycle and recover resources form end of life products;
- (7) use technologies that prevent waste and environmental pollution.

Circular Economy Target Performance Our firm

- (1) reduced waste water;
- (2) reduced solid wastes;
- (3) decreased consumption for materials;
- (4) decreased energy consumption;
- (5) improved environmental image.

Institutional Pressures

The extent to which your organization has . . . .

- (1) Compliance with international environmental standards;
- (2) Compliance with national/regional environmental regulations;
- (3) Compliance with national/regional resource saving and conservation regulations;
- (4) Respond to the pressures from suppliers, partners, and clients with respect to environmental issues;
- (5) The green strategies of same product producers;
- (6) Formulate green strategies of substitute product producers;
- (7) Compete in the industry;
- (8) Awareness of best practices in the industry;
- (9) Environmental awareness of employees;
- (10) Environmental awareness of customers;
- (11) The media focus on your industry;
- (12) The public environmental awareness (community, NGO, etc.);
- (13) The legitimization of your organization's activities;
- (14) The focus on performance and accountability;
- (15) The focus on environmental policy in the organizational vision and/or mission statement;
- (16) Professional groups' attention to environmental issues.

Enviropreneurship

Our organization...

- (1) has a cultural emphasis on circular economy target performance in environmentally friendly products;
- (2) has a high rate of environmentally friendly product introductions;
- (3) has a bold, innovative and environmentally friendly product development approach;
- (4) has a proactive posture to the environmental market;
- (5) has a strong inclination for high risk, high potential return projects in the field of environmentally friendly products.

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