

**Assignment of Value Chain Environmental Responsibility From a Small Retailers'  
Perspective: Exploratory Study**

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## **Abstract**

Small businesses in the United States (US) are valuable members of the value chain who contribute significantly to the US economy and collectively impact the natural environment. Research into the assignment of corporate environmental social responsibility (CESR) by small businesses as to negative impact or prevention of negative impact on the natural environment from conducting business by members of the value chain has not yet received significant attention in academic literature. Therefore, this study fills a gap in the literature by examining small businesses assignment of value chain members' (e.g., consumers, distributors, government, retailers, manufacturers, suppliers, wholesalers) CESR. Small businesses are key members of the value chain; thus, their attitudes toward assignment of CESR for preventing and/or creating the negative impact on the natural environment are important as collectively the value chain has a large footprint. A sample of 51 small businesses (i.e., merchandisers, restaurants, and service providers in the target population) was surveyed in two counties in the Southeastern US.

## **Introduction**

Marketing academics' and practitioners' have long been interested in how environmental issues impact marketing activities (Polonsky 2011). In 2011, Prothero, Dobscha, Freund, Kilborne, Luchs, Ozanne, and Thoegersen wrote a paper on sustainable consumption with a call for research to collectively examine the full consumption cycle. The full consumption cycle involves all value chain members and consists of both the supply chain across which material and informational interchanges occur in the lifecycle of products from the task of acquiring raw materials, delivering the finished product to

the end user occur, and the demand chain (i.e., customer who chooses among products controlling demand) (Council of Supply Chain Management Professionals 2014). The role of sustainability in supply chain management entails managing environmental, social and economic impact while practicing good governance through the entire lifecycle of the product. The ultimate goal is long-term value for all stakeholders of the value chain from the processes occurring within the chain (United Nations Global Compact 2010). *What happens in the United States does not stay in the United States.* Pollutants are carried by many means (e.g., air, water, humans) throughout the world. This has been shown to be problematic (e.g., debris islands in the oceans' shipping lanes, debris from Japan's Tsunami traveling to the US's West Coast, air pollution from the US is caught in the wind and travels to Canada, Mexico and beyond).

To be truly sustainable, lifecycle decisions within the value chain such as material usage, resource choices, and eco-efficiency must align among value chain members. In reality from a profitability viewpoint, sustainability decisions are weighed against standards, costs, and resource availability from product conceptualization and product development throughout the supply chain and manufacturing process. Nevertheless, from an integrative sustainable perspective companies must make decisions that tie short-term behavior decisions to long-term corporate goals of profitability and environmental sustainability.

CESR cannot be an effective directive for the value chain if only some value chain members participate. Small businesses (e.g., small merchandisers, restaurants, service providers) are key players in the value chain. As a strategic part of the value chain, small businesses in the US and around the globe have significant opportunities to help or

harm the natural environment while producing/selling goods and services to satisfy the needs and wants of customers. However, the majority of research on the small business sector's environmental sustainability efforts has focused on big retailers. In the United States (US) collectively small retailers (i.e., merchandisers, restaurants, service providers) have a large footprint 1,041,996 strong out of 1,967,984 (SBA.gov 2014). Nevertheless, their attitudes toward environmental sustainability responsibility have received little attention in academic literature. This study asks small retailers (i.e., merchandisers, restaurants, service providers with <100 employees) to assign CESR across value chain members. The purpose of this study is to fill a gap in business-to-business literature by examining the small retailers' assignment of CESR across the value chain.

### **Literature Review**

The 21st Century arrived with many of the same environmental concerns that have been around over many decades. In the United States (US) consumers of the 21st Century are becoming more environmentally informed as are many business owners and managers. One indication that environmental sustainability weighs on the minds of small business owners and managers is the growing presence of "green" chambers of commerce (e.g., Atlanta Georgia, Phoenix Arizona, Houston Texas, etc.) in the US. The Green Chamber of the South (GCS) located in Atlanta Georgia has 156 members consisting of large businesses such as Georgia Power; however, the largest membership consists of small business and individuals (Green Chamber of the South 2014). The relatively new creation of some of these chambers (e.g., GCS 2008) suggests that many within the value chain are realizing that their business decisions also affect the natural environment and without taking both into consideration their economic bottom line could

be negatively impacted. Individually or collectively voluntarily addressing business decisions that influence the natural environment are less costly than mandated government regulations. As reported by the Small Business Bureau, in order to be compliant with environmental regulations it cost small businesses 364% more than big businesses (NFIB 2014).

It is the pursuit of economic gains of businesses (large or small) that has great potential to have a positive or negative impact on the natural environment and the global economy. As humans, we actively engage in interactions with the natural environment as co-creative insiders. Businesses are made up of people in the pursuit of profits who may or may not choose to include the eco system in their business decisions (Clarke 2009; Hirshberg 2008).

From the demand side of the value chain, consumers have significant potential to drive businesses to be more sustainable both environmentally and economically (Ottman, Stafford, and Hartman 2006). In 2011, a study by Mintel/Environmental Business International Incorporated showed that even in a recession more people in the US were purchasing environmentally friendly products irrespective of costs (SC Johnson 2014). Consumer demand for change, coupled with increasing costs of natural resources, and demand for resources that exceed supply means that businesses must focus on environmental sustainability as a pressing business problem that can no longer be ignored (Hirshberg 2008). The retail industry is a key player in the supply side of the value chain. Retailers stock products that meet the wants and needs of consumers. The global retail industry has grown 3% since 2003 earning revenues above \$14.4 trillion in 2008. The global retail industry is expected grow to \$20 trillion by 2020 (Euromonitor 2012).

Discerning retailers holistically address the 3E's (i.e., ecology, environment, and economy) and do not solely focus on short-term economic gains (Ocampo 2014). It should be no surprise that big box US retailers (e.g., Wal-Mart) have taken significant strides toward greenness. Small retailers (i.e., merchandisers, restaurants, service providers) account for 40% of all retail sales and provide jobs for around eight million people. There are multiple retail footprints (e.g., 1,067,984 in 2010) on US soil of which 1,041,996 (97.6%) are the footprints of many small retailers (<100 employees) (SBA.gov 2014). Further, 95% of all retailers have only one store outlet and collectively have a significant ability to harm the natural environment (Independent Retailer 2011). Approximately 55% of all jobs and 66% of new jobs since the 1970s in the US are in the small business sector in which managements' individual and collective decisions as to CESR have a significant potential for impacting the 3E's. Nevertheless, small retailers seeking to make green decisions for the betterment of society and their business often face constraints on a scale that big retailers do not (e.g., difficulty in obtaining capital, lack of knowhow, lack of resources). Therefore, their individual and collective attitudes toward their CESR role within the value chain; and, other value chain members' CESR roles warrant understanding so strategies to overcome perceived and real constraints can be addressed for small businesses.

## **Research Questions and Theory**

### ***Research Question #1***

There are several variables that influence an entrepreneur's attitudes and actions including personality traits and situational factors. Some of these factors have been examined previously in empirical studies of entrepreneurs. For example, personality has

been shown to play a significant role in what entrepreneurs believe, and how they react to situations. From the works of Jamal (2007) and Parslow, Jorm, and Christensen (2004) specific personality traits have been identified that define entrepreneurs around the globe. These two personality traits are *conscientiousness* in which the entrepreneur tends to handle stress through problem-solving and rational coping strategies and *neuroticism* for which entrepreneurs use emotional coping strategies (Lynn 1969, Zhao and Seibert 2006). A study conducted by Lynn (1969) showed that entrepreneurs scored higher on *neuroticism* (i.e., a state of continual worry or fearfulness) than managers in other types of businesses. In a study by Perry, Penney, and Witt (2008), the researchers examined self-employed entrepreneurs' levels of *conscientiousness*, *neuroticism*, and *constraints* (i.e., situational factors faced in self-employment) for which they found a three-way interaction.

Although these personality traits are found in managers and situational factors exist, the principal (i.e., entrepreneur/owner) and agent (manager) relationship also creates problems of conflict between the desires or goals of the principal and their agents. Thus, risk sharing is not equal between the principal and the agent based on differences in attitude toward risk (Eisenhard 1989). The principal has a great deal at risk (i.e., livelihood of the employees, reputation, the business as well as their personal, financial, and emotional investment) while the agent has less at risk (e.g., his or her current job). Situational factors may impact the entrepreneur more than they would a manager. The impact comes from a sense of survival of the entrepreneur's livelihood; thus, creating a greater need to work long hours without separation between their job and home life, as

well as a strong drive to keep the business alive even when functioning with insufficient resources (Eisenhard 1989).

Although personality traits are relevant, without accounting for situational factors, a fundamental attribution error occurs (Ross, 1977). In fundamental attribution error, informativeness of the observations is overestimated. It has been shown through empirical evidence that the situation should not be separated from the personality when examining behaviors such as assignment of responsibility.

Personality traits that play a role in the strategies used by entrepreneurs have been well documented in research. It has further been established that entrepreneurs, especially self-employed, face extreme pressure to succeed with only their skills, abilities, and motivations. Knowing that specific personality traits play a key role in entrepreneurial decision-making, the researcher focused this study on identifying situational factors (i.e., constraints) that the respondents believe to have the greatest effect on their ability to engage in CESR.

R<sub>1</sub>: Which situational factors do entrepreneurs perceive as having the greatest influence on their ability to engage in sustainability practices?

### ***Research Questions #2 & #3***

Assignment of responsibility has two components 1) internal and 2) external. Typically, the internal assignment of responsibility is greater for negative outcomes than it is assigned to external circumstances (Sosis 1974). According to Heider's (1958) theory of second level of responsibility, an individual who fails to avoid a negative outcome feels more responsible for producing the observable effect. If the individual does not believe that his or her level of responsibility will or can create a negative



outcome (expected or foreseeable) then that individual does not see his or her culpability in the outcome and will not be concerned with changing his or her behavior (Whitehead III and Smith 1976). Based on the size and limited financial resources of small retail establishments and ownership of typically one business operation, small retailers may not see their ability to prevent negative influences on the environment nor their culpability to in creating negative impacts.

Further, to determine where respondents place responsibility, they are asked to identify the responsibility of “others” (i.e., value chain members) to protect or failure to protect the environment. The respondents are given opportunities to assign expected outcomes by attaching responsibility to value chain members (e.g., reducing resource waste is easier for the distributor than the retailer). Based on previous research as to predominate entrepreneurial personality traits it would be expected that most small retailers would assign responsibility to his or herself. However, when assignment of responsibility focuses on constraints (i.e., situational factors) as in this study, it should be expected that assignment of responsibility would be external to the small retailer because he or she would perceive that the ability to prevent or create a negative impact is outside of the scope of their abilities (Sosis 1974).

Government regulations of businesses are one of the most controversial legal and social issues in management. Enforcement of regulations and compliance are both costly and raise ideological issues for a free market. Some businesses see government regulations as hostile toward public interests and view them as “persecution of a powerless business community” (Daboub, Shane, Ortiz, and Blakemore 2012, p. 10). Others in the business community see government regulations as alliances between

government and businesses to protect the business community. This leads to the impression that the “powerful elite controls both government and business” and that big businesses drive policy making leaving the small business owner/manager in its wake (Kolko 1967). Another popular view of government regulations is one that sees regulations as protectors of the consumer without concern for the economic well being of businesses (Daboub, Shane, Ortiz, and Blakemore 2012). The perspective of the business owner/manager toward government regulations drives how the owner/manager assigns CESR within the value chain.

R<sub>2</sub>: To whom do small retailers assign the least and greatest responsibility for negatively impacting and/or failing to prevent negative impacts on the natural environment?

Strategies proposed for the dealing with assignment of CESR include: 1) reactive (i.e., response to CESR only when required to), 2) defensive (i.e., focus on regulatory compliance with little actual personal commitment), 3) accommodative (i.e., give some support to ECSR and may view it as somewhat worthwhile endeavor but not solely the entrepreneur’s problem), or 4) proactive (i.e., do more than what is required in CESR) strategies (Peng 2014).

R<sub>3</sub>: Which strategy of CESR is most frequently preferred in assignment of responsibility by entrepreneurs (i.e., small retailers)?

## **Methodology**

### ***Sample***

The study used a self-report survey methodology to examine small retailers' assignment of CESR within the value chain. A self-report study is appropriate because respondents are knowledgeable about their own beliefs.

A quota sampling methodology was used for this study in order to secure a representative sample of the population of small retailers (i.e., merchandisers, restaurants, service providers) within the targeted counties. Based on the quota, the research team members were instructed to approach business owners and managers of small businesses to solicit their cooperation. Surveys were dropped off with a set date for the research team to pick up the completed surveys.

This study is limited by the population of small retailers operating in two rural counties in the Southeastern US. The make up of the population for the two counties in the study includes 33.4% merchandisers, 17% restaurants, and 49.8% service providers (Census Stats 2012). The sample consisted of 32.7% merchandisers, 12.2% restaurants, 55.1% service providers, and 3.9% unidentified; thus, the sample should be considered a good representation of the true population of the two counties. See Table 1 for other demographic data.

<b>Table 1 – Sample Demographic Data</b>			
<b>Number of Employees</b>	<b>&lt;10</b>	<b>&gt; 10 but &lt;30</b>	<b>&gt; 30 but &lt;100</b>
<b>Percentage of Population</b>	22%	35%	43%

***Scale Purification***

The scale items were pilot tested on a small group of small business owners and managers to determine face (a.k.a., content) validity prior to being used in this study. The theoretical framework supports face or content validity.

The Antil and Bennett (1979) social responsibility consumption behavior scale was adapted as it was amenable to small retailer owners/managers. The scale demonstrated both convergent and discriminant validity (via multitrait-multimethod analyses) through correlation with traditional social responsibility and ecological concerns. The Antil (1984) scale produced a reliability of .93 (n=78). The researchers for this study selected twelve (12) of the original scale items and developed two (2) new scale items for this study (e.g., A company is not truly sustainable unless it does business with sustainable partners). The scale items were measured with a 7-point Likert scale. Reliabilities and dimensionality of the adapted scale were examined through SPSS21<sup>®</sup> Exploratory Factor Analysis (EFA) using a Varimax rotation estimated by maximum likelihood which identified distinct dimensions (not unidimensional as in the original scale): Factor 1 - attitude toward mandatory regulations of the value chain consists of six scale items (e.g., products which during their manufacturing process and/or once in the consumers' hands significantly pollute the environment should be heavily taxed by the government). Factor 2 - attitude toward voluntary business practices for environmental action consists of five scale items (e.g., I don't think we're doing enough to encourage manufacturers to use recyclable packaging). Factor 3 - attitude toward prevention of negative impact consists of two scale items (e.g., when choosing a supplier, on time delivery is far more important than the company's environmentally conscious behavior). Five items were removed from the scale due to cross loadings. See Table 2 below for details. The adapted scale produced a reliability of .915 (n = 51). The three-factor model had a cumulative Eigenvalue of 69.417%. The multidimensional scale was expected due to adaptations to the original scale. All factor loadings were fully acceptable as they were

above .533 for all dimensions with the majority of the loadings above .727 (Hair, Anderson, Tatham, and Black 1998).

<b>Table 2 - Factor Loadings Attitude Toward CESR</b>		
<b>Mandatory Regulations of the Value Chain</b>	<b>Voluntary Business Practices for Environmental Action</b>	<b>Prevention of Negative Impact</b>
.903	.115	.176
.831	.115	.283
.748	.358	.229
.745	.391	-.047
.680	.242	.279
.587	.320	.209
.484	.469	.229
.550	.727	.109
.439	.659	.286
.562	.633	.114
.272	.585	.508
.249	.568	.515
.077	.533	.288
.488	.506	.268
.443	.472	.338
.097	.409	.158
.167	.235	.955
.213	.287	.798
.339	.292	.407

A ten-item scale was developed to measure attitude toward supply chain members' responsibilities for negative impact on the natural environment. Findings from the Exploratory Factor Analysis (EFA) revealed a two-factor scale consisting of 1) attitude toward actions to reduce negative impact consisting of six scale items and 2) attitude toward constraints to reducing the negative impact consisting of three items. One item was removed from the scale due to cross loadings. The scale produced a reliability of .738 (n = 51). The two-factor model had a cumulative Eigenvalue of 72.497%. All factor loadings were above .550 for both dimensions with the majority above .744.

Table 3 – Factor Loadings Attitude Toward Supply Chain Members' CSR	
Entire Value Chain	Retailers
.904	-.031
.831	-.139
.767	-.066
.766	-.002
.744	-.006
.550	.338
.275	.211
-.090	.875
-.114	.861
.090	.662

EFA is exploratory and provides no inferential statistics. It was designed solely for the purpose of exploring a data set. “Conventional wisdom states that even though there are many options for executing the steps of EFA, the actual differences between them are small, so it doesn’t really matter which methods the practitioner chooses” (Costello and Osborne 2005, p.3). The maximum likelihood with Varimax rotation was chosen in lieu of principle components method (not a true method factor analysis) (Bentler & Kano, 1990). Varimax, an orthogonal method, is the most common method of rotation because it produces factors that are uncorrelated; thus, it was chosen for this study, as significant correlations between the factors in this study were not expected. The literature supports the argument that optimal results (i.e., generalizable to other samples that reflect the nature of the population) are achieved through the factor analysis extraction method (maximum likelihood).

### Findings and Analysis

For this exploratory study, a series of analyses were conducted to measure *Research Question #1 (Which situational factors do entrepreneurs perceive as having the*

*greatest influence on their ability to engage in sustainability practices?*). First, a regression analysis was conducted to examine if the respondents' attitude toward CESR (i.e., 14-item scale) and their role within the company positively influence their attitude toward CESR of the supply chain (i.e., 9-item scale). The findings reveal a significant relationship ( $p < .01$ ) in which 40.7% of the respondents' attitude toward the supply chain members environmental responsibility is influenced by their attitude toward CESR. As seen in Tables 4A, B & C below, the role of the respondent in the corporation was not significant. Therefore, small business managers/owners' positive attitude toward CESR influences their positive attitude toward the role of the supply chain in protecting the environment. This finding does not support agency theory as report by Eisenhard (1989). However, factors that may have contributed to this finding are: 62% of the respondents are owners of the business, 30% managers, 6% franchisees, and 2% failed to report their role; the size of the businesses (predominately <30 employees); and the majority managed only one location. Therefore, the findings as to agency theory should be considered with caution.

<b>Table 4A – Regression Model Summary</b>				
<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std Error of the Estimate</b>
1	.638 <sup>a</sup>	.407	.374	.54436

a. Predictors: (Constant), Role, CESR

<b>Table 4B - ANOVA<sup>a</sup></b>				
<b>Model</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	
1	Regression	7.510	2	3.755
	Residual	10.964	37	.296
	Total	18.474	39	

a. Dependent Variable: Supply Chain

b. Predictors: (Constant), Role, CESR

<b>Table 4C - Coefficients<sup>a</sup></b>					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.098	.480		6.460	.000
1 CCSR	.393	.079	.634	4.981	.000
Role	-.028	.130	-.028	-.217	.829

a. Dependent Variable: Supply Chain

To further examine *Research Question #1*, respondents were asked to identify the constraints that influenced them the greatest, “What is the greatest constraint on your retail business engaging in activities (e.g., fixing air or water leaks, purchasing energy efficient equipment, etc.) keeping them from engaging in sustainability practices.” A frequency analysis revealed that the most frequently reported constraint was financial (60.8%). See Table 5 below for details.

<b>Table 5 - Greatest Constraint to Engaging in Sustainable Behavior</b>				
	Frequency	Percent	Valid Percent	Cumulative Percent
Expertise	5	9.8	9.8	9.8
Financial	31	60.8	60.8	70.6
Know How	5	9.8	9.8	80.4
Understanding of Local, State or Federal Regulations	2	3.9	3.9	84.3
I see no need to make any changes	5	9.8	9.8	94.1
Other	3	6.0	6.0	100.0
Total	51	100.0	100.0	

In order to investigate *Research Question #2 (To whom do small retailers assign the least and greatest responsibility for negatively impacting and/or preventing negative impacts on the natural environment?)*, as to levels (highest and lowest) of assignment of



responsibility for negative impact on the natural environment and for prevention of negative impacts, a series of frequency analyses, correlation analyses, and qualitative content analysis were conducted.

A frequency analysis measured *assignment of responsibility for the creation of negative impact* on the environment (1 = greatest responsibility and 8 = least responsibility). Respondents were able to use the numbers between one and eight more than once if they believe there was an equal level of responsibility. The survey listed eight members of the value chain (i.e., consumers, distributors, government agencies, large retailers, manufacturers, small retailers, suppliers, and wholesalers). From the sample of 51 respondents, the greatest negative impact was assigned to manufactures followed by consumers (collectively 63.0%). See Table 6 below for assignment of impact. It is possible that the respondents perceive the distributor and suppliers with the least negative impact on the natural environment because of their function within the value chain.

<b>Table 6 - Assignment of Responsibility for Greatest N</b>	
<b>(Sample Size = 51)</b>	<b>Respondents Assignment of Impact</b>
Manufacturers	39.4%
Consumers	23.6%
Government	10.9%
Small Retailers	10.7%
Large Retailers	6.6%
Wholesalers	4.4%
Distributors	2.2%
Suppliers	2.2%

Respondents were asked as to clarify their assign responsibility of greatest negative impact. A content analysis was conducted by assigning responses to broad categories and

then compressing them into smaller categories. Note: Some respondents did not provide explanations and others provided multiple explanations. See Table 7 below for details.

<b>Table 7 – Content Analysis of Assignment of Responsibility of Negative Impact on the Environment</b>	
<b>Responsible Party</b>	<b>Category</b>
Consumers (n, 24)	Don't care (42%) No oversight (8%) Wasteful (50%)
Government agencies (n, 12)	Lack control over manufacturers (25%) Lack motivation (33.3%) Waste resources (41.7%)
Manufacturers (n, 47)	Don't care about the environment (14.9%) Don't care about fines by the government (14.9%) Greatest users of resources (38.2%) Produce the most waste (31.9%)

In support of the quantitative findings, one respondent stated, “I feel they are the ones who generate a lot of waste through unnecessary packaging.” Another respondent stated, “Manufacturers use more natural resources, (i.e. water, electricity, gas, etc.) so does the average consumer” clearly making a comparison of responsibility between manufacturers and consumers. Another makes the assignment to consumers by stating, “consumers drive the demand to purchase whatever it is that fits their perceived needs most.”

To further examine *Research Question #2*, respondents were asked to identify from their perspective who among the value chain members has the *greatest and who has the least responsibility to prevent negative impact* on the natural environment. The respondents were provided choices to assigned responsibility for the prevention of negative impact on the natural environment as (1 = greatest responsibility and 8 = least responsibility). Respondents were able to use the numbers between one and eight more than once if they believe there was an equal level of responsibility. The survey listed

eight members of the value chain (consumers, distributors, government agencies, large retailers, manufacturers, small retailers, suppliers, and wholesalers). A frequency analysis (n = 51) assigned the greatest responsibility for preventing negative impact to manufacturers, government agencies and consumers (collectively 48%); however, the assignment of responsibility for prevention of negative impact on the environment was fairly evenly distributed among all players in the supply chain. See Table 8 below for details.

<b>Table 8 – Assignment of Responsibility for Prevention of Negative Impact on the Environment</b>	
<b>(Sample Size = 51)</b>	<b>Respondents Assignment for Prevention</b>
Manufacturers	18.0%
Government	16.0%
Consumers	14.0%
Large Retailers	11.0%
Wholesalers	11.0%
Distributors, Small Retailers, Suppliers	10.0% (each)

Respondents were asked to clarify their assign of responsibility for negative environmental impact. A content analysis was conducted by assigning responses to broad categories and then compressing them into smaller categories. Some respondents did not provide explanations and others provided multiple explanations. See Table 9 below for details.

<b>Table 9 – Content Analysis Assignment of Responsibility</b>	
<b>Responsible Party</b>	<b>Category</b>
Consumers (n, 24)	Don't care (42%) No oversight (8%) Wasteful (50%)
Government agencies (n, 12)	Lack control over manufacturers (25%) Lack motivation (33.3%) Waste resources (41.7%)
Manufacturers (n, 47)	Don't care about the environment (14.9%) Don't care about fines by the government (14.9%) Greatest users of resources (38.2%) Produce the most waste (31.9%)

When responding to the question of why the respondent assigned responsibility for prevention of negative impact, one respondent stated, “I feel that the government has the biggest opportunity to pass laws and create programs to protect the environment. Those with the greatest opportunity have the most responsibility.” Another stated, “Government agencies and manufactures have a significant impact as well as a responsibility to educate consumers and small business owners on their impact on the environment.” Another states, “Again, with great power comes great responsibility. Those that produce the most waste should assist in the solutions to responsibly and environmentally find safe ways to make the least amount of impact.” As to manufacturers, one stated, “Manufacturers are the first element of the supply chain. If they produce "green" products, then other organizations will reduce negative impact to the environment.”

A correlation analysis showed that respondents’ assignments of responsibility for creating a negative impact on the environment and prevention of negative impacts on the environment within organization type (e.g., manufacturers as creators to manufacturers as preventors) for members of the supply chain were significantly correlated at  $< .05$  except for small retailers and governmental agencies. The strongest correlation was found for manufacturers (.711,  $p = .000$ ). The remaining correlations were moderately correlated

except suppliers, which presented with a weak relationship. See appendices for a detailed correlation table.

To address *Research Question #3 (Which strategy of CESR is most frequently preferred in assignment of responsibility by entrepreneurs?)* as to which strategies entrepreneurs prefer for addressing CESR, a paired sample mean analysis was performed. When comparing the means of attitudes toward government regulation (mean = 3.29) to voluntary action (mean = 4.36), the analysis revealed  $t = -5.817$  with (df 39),  $\text{sig} < .01$  and a standard deviation (1.1642). The findings show that taking voluntary action was the preferred strategy. This finding coupled with qualitative responses demonstrated that the majority of small retailers in the study preferred to use accommodating (i.e., voluntary) strategies (e.g., recycle, clean up service provided to the local community, and use less harmful products). This also indicated a preference for voluntarily using proactive strategies (e.g., promote green products and conservation and installation of energy efficient equipment). As to attitude toward government regulations (mean 3.29) compared to attitude toward preventative actions (mean = 4.50), the analysis revealed  $t = -5.054$  with (df 39),  $\text{sig} < .01$  and standard deviation (1.452). The findings show that preventative actions were preferred. This also demonstrates a less than positive attitude toward government regulation by small retailers supporting the US Small Business Bureau report (NFIB 2014).

When small retailers were asked if they find it necessary to engage in environmental sustainable practices to be competitive, 75.5% said no. This coupled with qualitative findings in this study (e.g., 43 respondents reported volunteer behavior) demonstrates that changes are made voluntarily when resources are available and not for

competitive reasons. Cost saving over the long run may be an explanation for this perspective. One respondent reported, “We aren't wasteful but, we are driven by the bottom line.”

***Post Hoc Analyses***

Additionally, the survey presented the respondents with a question in order to determine if small retailers would be interested in finding remedies to environmental sustainability issues within their control through a co-op (i.e., a organization providing financial resources, know how, clarifying regulations, etc.) at a specific annual fee. Across the board, all but 23.5% of the respondents reported a willingness to pay anywhere from \$1 to \$25 up to and including \$400 to \$500. However, the largest percentage was 23.5% that said that he or she was not willing to pay anything to join a co-op, while 19.6% said they were willing to pay \$76-\$100 and 11.8% said they were willing to pay more than \$400 but less than \$500. See Table 10 below for details.

<b>Table 10 – Join Co-Op to Remedy Environmental Sustainability Issues (N = 51)</b>	
<b>Amount Willing to Pay</b>	<b>Valid Percentage</b>
Nothing	23.5
Up to \$25	5.9
\$26-\$50	11.8
\$51-\$75	3.9
\$76-\$100	19.6
\$101-\$150	9.8
\$151-\$200	3.9
\$201-\$250	5.9
\$251-\$300	2.0
\$301-\$400	2.0
> \$400 but < \$500	11.8

## **Conclusions, Implications, and Recommendations**

This exploratory study adds value to the business-to-business literature by sampling an important sector of the US business population and a key member of the value chain (i.e., small retailers). These small retailers (i.e., merchandisers, restaurants, service providers) are highly understudied as to their assignment of responsibility within the value chain regarding responsibility for harming the natural environment. Small retailers make up a significantly large portion of the US retail sector; therefore, identifying the CESR mindset of small retailers within the value chain provides important and valuable insights into needed remedies for the prevention of harm to the natural environment. The findings as to CESR from this exploratory study are significant as together small retailers have a large footprint on the natural environment and their individual beliefs as to responsibilities, preventions, or remedies stemming from perceived and/or real constraints collectively warrant action. This study demonstrates the need for this research stream and warrants expansion to a larger sample.

Findings from this study reveal that the sample of small retailers, as members of the value chain, assign a much greater responsibility for negative impact on the natural environment and remedies to various other members of the supply chain. This being said, respondents did make claims that they have culpability (e.g., “We are all responsible” and “I believe all are equally responsible”).

So, how can the small business owner or manager, self-identifying financial resources as their greatest constraint to engaging in CESR, address preservation of the natural environment and remain profitable when compliance with regulations cost them 364% more than it does big business? Even the smallest changes are important and

clearly many of the small retailers in this study are making small changes, as resources are available. Some Green Chambers offer low interest loans and provide other resources for businesses going green. Co-Ops are springing up around the US (e.g., Atlanta Georgia), but they are grossly under marketed. Joining a Green Chamber of Commerce and/or contacting the Small Business Bureau are two-low cost solutions to gaining a voice and assistance when it comes to CESR. Organizations like these have important benefits for the small retailer and the environment, but currently lack marketing reach. For these organizations, creating marketing strategies focused on the concerns of the small business (e.g., retailer), would help the small business owners/managers see their collective impact and also help them find resources for resolutions without government intervention. If the small retailer could see the competitive advantage in CESR coupled with free to low cost resources to engage in CESR, then the natural environment and the small business would both gain (3Es).

This study is limited by the sample population (i.e., two counties in the Southeastern US); however, it produced reliable scales specifically adapted for examining CESR and attitude toward the supply chain's responsibility for the environment from the perspective of the small business owner/manager. As this was an exploratory study, it is recommended that the purified survey be administered to a larger population. The findings from the survey clearly demonstrate the sample population's perspectives as to CESR. Therefore, further examination across a larger population is warranted.



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## Appendices

		Consumer Negative Impact	Distributor Negative Impact	Gov't. Agency Negative Impact	Large Retailer Negative Impact	Mfg. Negative Impact	Small Retailer Negative Impact	Supplier Negative Impact	Wholesaler Negative Impact	Consumer Prevent Impact	Distributor Prevent Impact	Gov't Agencies Prevent Impact	Large Retailer Prevent Impact	Mfg. Prevent	Small Retailer Prevent	Supplier Prevent	Wholesaler Prevent
Consumer Negative Impact	Pearson Correlation	1															
	Sig. (2-tailed)																
	N	51															
Distributor Negative Impact	Pearson Correlation	-.351*	1														
	Sig. (2-tailed)	.012															
	N	50	50														
Gov't. Agency Negative Impact	Pearson Correlation	.250	.003	1													
	Sig. (2-tailed)	.080	.983														
	N	50	50	50													
Large Retailer Negative Impact	Pearson Correlation	.167	.115	.377**	1												
	Sig. (2-tailed)	.246	.425	.007													
	N	50	50	50	50												
Mfg. Negative Impact	Pearson Correlation	.126	.322*	.228	.505**	1											
	Sig. (2-tailed)	.385	.023	.111	.000												
	N	50	50	50	50	50											
Small Retailer Negative Impact	Pearson Correlation	.184	.078	-.099	-.053	-.172	1										
	Sig. (2-tailed)	.196	.592	.496	.715	.234											
	N	51	50	50	50	50	51										

		Consumer Negative Impact	Distributor Negative Impact	Gov't. Agency Negative Impact	Large Retailer Negative Impact	Mfg. Negative Impact	Small Retailer Negative Impact	Supplier Negative Impact	Wholesaler Negative Impact	Consumer Prevent Impact	Distributor Prevent Impact	Gov't Agencies Prevent Impact	Large Retailer Prevent Impact	Mfg. Prevent	Small Retailer Prevent	Supplier Prevent	Wholesaler Prevent
Supplier Negative Impact	Pearson Correlation	-.082	.606**	.028	.133	.317*	.401**	1									
	Sig. (2-tailed)	.573	.000	.846	.357	.025	.004										
	N	50	50	50	50	50	50	50									
Wholesaler Negative Impact	Pearson Correlation	.026	.380**	.048	.104	.062	.082	.259	1								
	Sig. (2-tailed)	.860	.007	.741	.474	.671	.573	.069									
	N	50	50	50	50	50	50	50	50								
Consumer Prevent Impact	Pearson Correlation	.521**	-.273	.306*	.333*	.169	-.112	-.275	-.096	1							
	Sig. (2-tailed)	.000	.055	.030	.018	.240	.432	.053	.509								
	N	51	50	50	50	50	51	50	50	51							
Distributor Prevent Impact	Pearson Correlation	-.019	.403**	.162	.149	.562**	-.147	.284*	.305*	.326*	1						
	Sig. (2-tailed)	.893	.004	.262	.301	.000	.303	.046	.032	.019							
	N	51	50	50	50	50	51	50	50	51	51						
Gov't. Prevent	Pearson Correlation	.244	-.011	.208	.405**	.500**	-.291*	-.219	.156	.457**	.546**	1					
	Sig. (2-tailed)	.084	.940	.147	.004	.000	.038	.126	.278	.001	.000						
	N	51	50	50	50	50	51	50	50	51	51	51					
Large Retailer Prevent	Pearson Correlation	.220	-.005	.306*	.535**	.601**	-.207	.015	.202	.495**	.690**	.720**	1				
	Sig. (2-tailed)	.120	.970	.031	.000	.000	.144	.919	.159	.000	.000	.000					
	N	51	50	50	50	50	51	50	50	51	51	51	51				
Mfg. Prevent	Pearson Correlation	.085	.172	.142	.550**	.711**	-.238	.125	.201	.411**	.686**	.724**	.824**	1			
	Sig. (2-tailed)	.553	.233	.327	.000	.000	.093	.388	.162	.003	.000	.000	.000				
	N	51	50	50	50	50	51	50	50	51	51	51	51	51			
Small Retailer Prevent	Pearson Correlation	.236	.054	.114	.166	.235	.237	.181	.223	.518**	.644**	.296*	.636**	.396**	1		
	Sig. (2-tailed)	.095	.712	.430	.249	.100	.094	.207	.120	.000	.000	.035	.000	.004			
	N	51	50	50	50	50	51	50	50	51	51	51	51	51	51		

		Consumer Negative Impact	Distributor Negative Impact	Gov't. Agency Negative Impact	Large Retailer Negative Impact	Mfg. Negative Impact	Small Retailer Negative Impact	Supplier Negative Impact	Wholesaler Negative Impact	Consumer Prevent Impact	Distributor Prevent Impact	Gov't Agencies Prevent Impact	Large Retailer Prevent Impact	Mfg. Prevent	Small Retailer Prevent	Supplier Prevent	Wholesaler Prevent
Supplier Prevent	Pearson Correlation	.104	.277	.013	.322*	.475**	-.099	.310*	.335*	.436**	.800**	.472**	.724**	.739**	.757**	1	
	Sig. (2-tailed)	.468	.051	.926	.023	.000	.488	.028	.017	.001	.000	.000	.000	.000	.000		
	N	51	50	50	50	50	51	50	50	51	51	51	51	51	51	51	
Wholesaler Prevent	Pearson Correlation	.093	.217	.178	.254	.383**	-.176	.145	.444**	.374**	.815**	.567**	.806**	.649**	.764**	.846**	1
	Sig. (2-tailed)	.517	.130	.217	.075	.006	.216	.313	.001	.007	.000	.000	.000	.000	.000	.000	
	N	51	50	50	50	50	51	50	50	51	51	51	51	51	51	51	51