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HOW DO FIRMS' ACTIONS IMPACT GREEN SCEPTICISM? THE EFFECTS OF GREEN BRAND ASSOCIATIONS, GREEN BRAND EQUITY AND GREENWASHING

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ABSTRACT

Purpose- This study aims to explore how greenwashing, green brand equity and green brand associations affect green skepticism.

Methodology- In the study, survey method was used to collect the data. After eliminating unreliable questionnaires, final sample size consists of 400 respondents. To check the reliability and the construct validity of the scales, Cronbach's Alpha coefficient and Exploratory Factor Analysis (EFA) was run, and to affirm the convergent and discriminant validity, Confirmatory Factor Analysis (CFA) was used. In order to test the research hypothesis, Structural Equation Modeling (SEM) was conducted.

Findings- According to the results, it was found that green skepticism is positively affected by greenwashing, while negatively affected by green brand associations and green brand equity.

Conclusion- Greenwashing positively affects green skepticism, while there is a positive relationship between green brand associations, green brand equity and green skepticism.

Keywords: Green scepticism, greenwashing, green brand equity, green brand associations, structural equation modelling.

JEL Codes: M31, C83, L21

1. INTRODUCTION

During the past few decades, increases in environmental concern enforced companies to develop green strategies almost in every business functions such as marketing, production, supply chain management etc. Today, there is a huge amount of green products offered in the markets (Leonidou and Skarmeas, 2017). By that means, there is also increasing consumer awareness in relation with the firms' environmental actions (Wei et al., 2017). On the other hand, there is also a growing concern about the green misleading communication done by companies to increase their green perception (Parguel et al. 2011). Corporates' malfeasances and irresponsible environmental behaviors are hold responsible for the increases in scepticism towards green actions (Mohr et al.1998; Obermiller et al. 2005).

Green skepticism is an important issue not only for consumers, but also for companies, investors, governments, and society in general (Leonidou and Skarmeas, 2017). Because as scepticism increases, consumers' intentions to buy green products decreases (Albayrak et al. 2011). In addition to that, skepticism also causes diminishes on the positive impact of green communication (do Paco and Reis, 2012). In the long turn, those may cause erosions in the markets in which companies invest on eco-friendly products (Leonidou and Skarmeas, 2017). Furthermore, green skepticism drives consumers to seek more information and fosters negative word of mouth (Leonidou and Skarmeas, 2017). More importantly, green skepticism lowers customers' environmental knowledge and environmental concern (Goh and Balaji, 2016), and therefore may drive erosions in the society regarding sustainability.

There is an extant literature on green marketing however green scepticism is an understudied concept (Leonidou and Skarmeas, 2017; Goh and Balaji, 2016). The literature generally focuses upon green ad scepticism (Shrum et al., 1995; Matthes and Wonneberger, 2014; Wei et al., 2017) and how marketing communication is related with scepticism (Raska and Shaw, 2012); skepticism towards environmental issues such as climate change (Pelham, 2018), and the relationship between consumers' environment related attitudes and skepticism (Goh and Balaji, 2006; Rahman et al., 2015). Yet, how firms' branding-related actions impact green scepticism has escaped adequate research attention. On that ground, this study aims to fulfil that gap by exploring how greenwashing, green brand equity and green brand associations affect green scepticism.

2. LITERATURE REVIEW

2.1. Green Scepticism and Greenwashing

Scepticism is defined as "a person's tendency to distrust or disbelieve" (Romani et al., 2016 p.255). It may either be considered as enduring, and therefore as a personality trait (Obermiller and Spangenberg 1998) or as situational, and therefore context-dependent (Singh et al. 2009; Pirsch et al. 2007). Situational scepticism is independent from one's trait but depends on the context (Rahmani et al., 2016). Scepticism is studied across different disciplines such as psychology, sociology, politics and philosophy (Skarmeas and Leonidou, 2013). In the business context, consumers' scepticism in relation with advertising, promotion, public relations, and consumer social responsibility (CSR) and green marketing were studied.

Consumers evaluate the messages and actions of the firms and in some point they may develop scepticism as a result of their evaluations (Friestad and Wright 1994). Green scepticism is a situational scepticism and refers to doubting or disbelieving environmental claims made by the firms (Goh and Balaji, 2016). On that basis, it is affected by firms' communications and actions. Prior research stated that there are several drivers causing green scepticism. Leonidou and Skarmeas (2017) indicate that consumers classify firms' actions either as intrinsic (such as value-driven motives) or extrinsic motives (such as stakeholder-driven motives). Intrinsic motives are selfless actions to do good while extrinsic motives are related with increasing one's own welfare (Parguel et al., 2011). In their study, Leonidou and Skarmeas (2017) verified that when consumers perceive that the green talk and green walk achieved by the firm is a selfless action, then their scepticism decreases. Green scepticism negatively affects credibility of the green ad. Consumers, who are highly sceptical, are biased towards information claims and therefore they do not trust the arguments in the ads. On that ground, they develop a negative attitude towards green products, which affects green purchase intention and behavior negatively (Wei et al., 2017; Ulusoy and Barretta, 2016). Therefore it was hypothesized that;

H1: Greenwashing positively affects green scepticism.

4.2. The Green Brand Equity

All of the marketing activities, either done successfully or unsuccessfully, add a value to the brand and as a result generate a consumer response, which is conceptualized as brand equity (Aaker, 1991; Keller, 1993). Brand equity is defined as "consumers' different response between a focal brand and an unbranded product when both have the same level of marketing stimuli and product attributes" (Yoo and Donthu, 2001 p. 1). The difference in consumer response is derived from the marketing activities. In relation with that conceptualization of brand equity, Chen (2010, p. 310) defined green brand equity as "a set of brand assets and liabilities about green commitments and environmental concerns linked to a brand, its name and symbol that add to or subtract from the value provided by a product or service". Today, green brand equity is an important tool to achieve competitive advantage since it enables companies to strongly position their products in green markets (Butt et al., 2017).

The main focus in the green marketing literature was to determine the antecedents of green brand equity (Kang and Hur, 2012; Chang and Chen, 2014; Ng et al, 2014). The outcomes of green brand equity are understudied. However, previous literature for conventional marketing confirms that brand equity positively affects marketing success (Ambler, 1997; Simon and Sullivan, 1993; Lane and Jacobson, 1995), future profits and long-term cash flow (Srivastava and Shocker, 1991), and consumers' willingness to pay more (Keller, 1993).

Green brand equity derives from the green marketing activities and generates a positive response in the market. Almost each marketing activity affects brand equity, but especially activities that lead to perceived quality, positive brand image, brand loyalty, positive associations are crucial, since those are defined as the main dimensions of brand equity, along with the tangible assets of the brand (Aaker, 1997). On that ground, strong green brand equity is a sum of the positive perceptions of quality, image, and associations. Therefore, it was hypothesized that;

H2: Green brand equity negatively affects green scepticism.

2.3. The Green Brand Associations

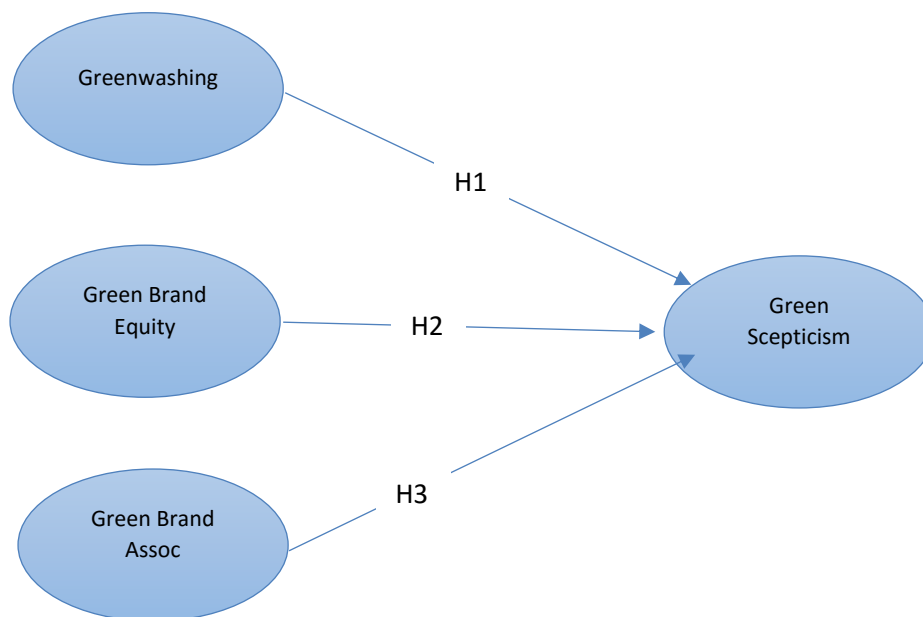
Brand associations are “the informational nodes linked to the brand node in memory and contain the meaning of the brand for consumers” (Belen del Rio et al., 2001). The brand attributes, benefits and attitudes are stored in the consumers’ minds and generate an information source (Keller, 1998). Brand associations can be anything recorded into the category of “brand’s assets and liabilities” in the memory (Aaker, 1991). Brand associations are not only used by consumers to organize and retrieve information about the brands but also used by the marketers to differentiate and extend brand, to create positive attitudes and feelings toward brands (Low and Lamb, 2000). Strong, positive, and unique associations fortify a brand and increase brand equity (Keller, 2001). Moreover, when consumers hold strong and positive associations in their mind their perceptions about the disbelief of the firms’ green actions diminishes. Therefore it was hypothesized that;

H3: Green brand associations negatively affect green scepticism.

3. DATA AND METHODOLOGY

Data was collected by using survey method, and 400 consumers were interviewed face-to-face by the interviewers. The socio-demographics of the sample is as follows: Gender (52% female, 48% male), age group: 18-25 (26%); 26-35 (40%); 36-45 (17%), income level: 400-1350 USD (62%). As a subject to study, well-known refrigerator brand, which positions itself as green, was used. Green scepticism was adopted from Goh and Balaji (2016) and measured by four items, green brand equity was adopted from Chen and Chang (2012) and measured by four items, greenwashing was adopted from Chen and Chang (2013) and measured by five items, and green brand associations was adopted from Chang and Chen (2014) and measured by four items. Five-point Likert scale rating from strongly agreement to strongly disagreement was used in scaling. The research model used in the study is shown in Figure 1.

Figure 1: Research Model



As it is seen in Figure 1 above, this study explores the effects of greenwashing, green brand equity and green brand associations on green skepticism. In the study it was hypothesized that green washing positively affects green skepticism while green brand equity and green brand associations have negative impacts upon green skepticism.

4. FINDINGS AND DISCUSSIONS

4.1. Reliability and Validity Check

The reliability and the validity of the scales were checked by running Cronbach’s Alpha coefficient and Exploratory Factor Analysis (EFA). Table 1 displays Cronbach’s Alpha values and explained variance by each variable.

Table 1: The Cronbach’s Alpha Values and Explained Variance

Constructs	# of items	Cronbach’s Alpha	KMO Values	Bartlett test of sphericity sig.	Variance Explained (%)
Green Scepticism	3(4)*	.794	.663	.000	71.0
Greenwashing	5	.869	.840	.000	65.8
Green Brand Equity	4	.849	.765	.000	64.9
Green Brand Associations	4(5)*	.795	.767	.000	62.7

*One item deleted to increase the internal consistency.

As it is seen in Table 1, Cronbach’s Alpha values are high above the minimum required level of .70 after deleting one item from green associations scale and green skepticism scale. In order to test the validity of the scales, EFA with principal component method was run. First, Keiser-Meyer-Olkin of sampling adequacy (KMO) and Bartlett test of sphericity for each construct were checked to assure the appropriateness of EFA. KMO values are high above the minimum required level .50 and the Bartlett test of sphericity for each construct is significant. As a result of EFA, it was found that all the constructs explains at least 66 per cent variance.

Moreover, Confirmatory Factor Analysis (CFA) was conducted to affirm the convergent and discriminant validity. At first, the goodness-of-fit between the data and the model was tested. The fitness measures provide the required levels (CMIN/df= 2.280, GFI= .953, IFI.= .966, TLI=.954, CFI=.966, and RMSEA= .051). In order to assess convergent validity, factor loadings, composite reliability (CR) and average variance extracted (AVE) were examined. The literature suggest that factor loadings should be between .6 and .95, the CR should be higher than .6, and AVE values should be over .5 (Lin and Niu, 2018). The results of convergent validity test were presented in Appendix 1.

For discriminant validity, the methodology stated by Fornell and Larcker (1981) was employed. Accordingly, the AVE values and the correlations between each construct were compared. The square root of the AVE should be higher than the correlations between the variables (Butt et al., 2017). The results of discriminant validity test were given in Table 3.

Table 3: The Results of Discriminant Validity Analysis

	Green Scepticism	Green Brand Equity	Green Brand Assoc.	Greenwashing
Green Scepticism	(.588)*			
Green Brand Equity	-.064**	(.547)		
Green Brand Associations	-.145	.356	(.591)	
Greenwashing	.285	-.284	-.267	(.504)

* The values in the parenthesis are square root AVEs.

** Correlation values between constructs.

Note I: For every latent variable, its square root AVE value is greater than its correlation coefficient values with other variables, thus verifying discriminant validity.

4.2. Test of Structural Relationships

Structural Equation Modeling (SEM) with maximum likelihood estimation (MLE) was run to test the relationships among constructs. Figure 2 displays structural model of relationships.

Figure 2: Structural Model of Relationships

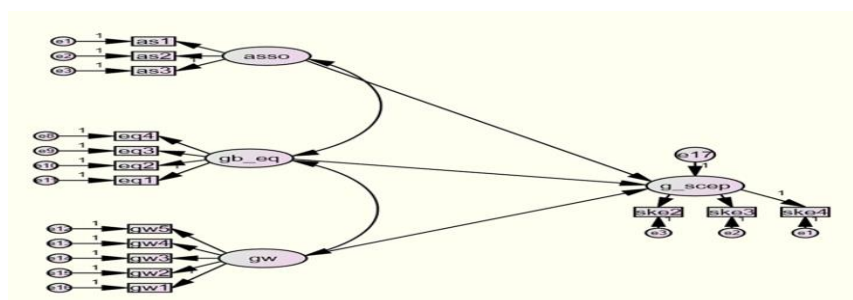


Figure 2 displays the structural paths of the research model. As it is seen in Figure 2, there are four latent variables: brand associations (asso), green brand equity (gb_eq), green washing (gw), and green scepticism (g_scep). There are also 16 error terms related with the variables.

The goodness-of-fit between the data and the model was checked via various indicators. All the indicators verified good fitness between the data and the model (CMIN/df= 2.468, GFI= .950, IFI=.963, TLI=.952, CFI=.963, and RMSEA= .054). Furthermore, Hoelter's N0.05 = 264>200 and Hoelter's N0.01 = 290 >200 indicate the adequacy of sampling size (Schreiber et al., 2006). The results of the path analysis were presented in Table 4. Accordingly, all of the hypotheses in the research model were supported. R² value for the model was found as .584. In other words, the model explains approximately 60 per cent of green scepticism. Consequently, the theoretical and managerial implications of the study are discussed below.

Table 4: Hypotheses Testing of the Structural Model

			Estimate	Std. error	t-value	sig.	
Greenwashing	→	Green Scepticism	.371	.065	5.667	.000	H1 Supported
Green Brand Equity	→	Green Scepticism	-.258	.077	-3.351	.000	H2 Supported
Green Brand Assoc.	→	Green Scepticism	-.147	.072	-2.029	.043	H3 Supported

5. CONCLUSION

For companies it is important to understand the green consumption behavior since there are controversial finding in the literature. The overall purpose of this study is to explore the green brand-related factors on green skepticism. More specifically, this research aims to analyze how greenwashing, green brand equity and green brand associations affect green skepticism. The data was collected from 400 consumers in Istanbul, Turkey, in which a rapidly growing environmentally sensitive market segment exist (Albayrak et al., 2013). The research hypotheses were tested by SEM. As a result it was found that greenwashing positively affects green skepticism whereas green brand associations and green brand equity have negative effects.

Skeptical consumers are vulnerable to negative information (Skarmeas and Leonidou, 2013), and therefore as misleading information increases so does the green skepticism. The greenwashing does not only affect the company, which claimed by doing greenwashing but it affects the whole green marketing industry. In fact, for the skeptical consumers, interpersonal communication is viewed as more credible than the organizational communication (Grewal, Cline, & Davies, 2003). The companies should be aware of the greenwashing activities and take necessary action to assure that misleading actions does not add to skepticism.

In addition to greenwashing, green brand associations and green brand equity negatively affect green skepticism. On that ground companies should rely upon creating positive associations in consumers' minds and invest upon increasing the equity of their brands.

This study has some limitations that would generate further research opportunities. First, this study is executed in one emerging country hence the results should not be generalized for all the emerging countries. Besides that, one product category and one brand were used as subject to study. Therefore the results also cannot be generalized for all of the product categories and brands. Other emerging countries and other product categories should be analyzed as further research.

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Appendix 1: The Results of Convergent Validity analysis

Construct	Items	λ	C.R.	AVE	Square Root of AVE
Green Scepticism	Because environmental claims are exaggerated, consumers would be better off if such claims on package labels of in advertising were eliminated	.600*	.806	.588	.767
	Most environmental claims on package labels or in advertising are intended to mislead rather than to inform consumers	.906			
	I do not believe in most of the environmental claims made on the package labels or in advertising	.763			
Green Brand Equity	It makes sense to buy this brand instead of other brands because of its environmental commitments even if they are the same	.602	.902	.547	.739
	Even if another brand has the same environmental features as this brand I would prefer to buy this brand	.840			
	It there is another brand's environmental performances as good as this brand's, I would prefer to buy this brand	.831			
	If the environmental concern of another brand is not different from that of this brand in any way, it seems smarter to purchase this brand	.654			
Green Brand Associations	You can recognize this brand among other competing brands because of its environmental commitments	.501*	.812	.591	.769
	You are aware of this brand because of its environmental reputation	.729			
	Some environmental characteristics of this brand come to the top-of-mind in your consideration set quickly	.805			
	You can quickly recall the green image of this brand	.771			
Greenwashing	This product misleads with words in its environmental features	.825	.964	.504	.710
	This product misleads with visuals or graphics in its environmental features	.873			
	This product possesses a green claim that is vague or seemingly un-provable	.724			
	This product overstates or exaggerates how its green functionality actually is	.743			
	This product leaves out or masks important information, making the green claim sound better than it is	.724			

*All values are significant at $p < 0.01$ ** The item is omitted while calculating CR and AVE, because it is lower than .60

LOGISTICS MANAGEMENT IN DISASTER

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ABSTRACT

Purpose- The aim of this research is to bring together studies on disaster logistics in the literature and to investigate disaster logistics management. Logistics is of paramount importance in order to prevent the loss of life and property in death injuries in an extraordinary situation. The aim of this research is to investigate logistics processes at every stage of disaster logistics.

Methodology- The qualitative research method was used in the study and the literature was reviewed and the logistic tools used in case of a disaster in the world were discussed.

Findings- Disaster scenarios are prepared for unforeseen events before and after the disaster and logistic simulations are applied and drills are performed. For urgent needs, materials such as tents, blankets, beds, heaters and kitchen sets with a long shelf life should be provided by signing protocols with suppliers. Several firms should be preferred instead of one. Personnel training is important in disaster logistics. Throughout the organization, the logistics unit personels should be distrubeted according to their talents. Plans must be proactive, before disaster, during disaster, after disaster plans should reviewed.

Conclusion- Due to the high uncertainty in terms of both supply and demand in disasters, sudden changes in the materials and materials needed in the disaster area and other such problems, the logistics unit and supply chain network must be able to overcome such negativities. These requirements, which demonstrate the need for agility, require an adaptable and neatly formed flexible supply chain structure to respond quickly to changing conditions. Logistics data is collected and transmitted for useare vital. Innovations in the field of logistics technology, drone, intelligent transportation systems, unmanned transportation vehicles, RFIDvs, technology-assisted disaster logistics are becoming widespread in order to save more lives in less time

Keywords: Crisis, disaster, logistics, innovation, RFID, drones.

JEL Codes: H84, Q54, L91

1. INTRODUCTION

Disasters are man-made and /or nature-related events that adversely affect all living life in nature, cause physical, economic and social losses, and may trigger another disaster risk by disrupting the ecological system and today it continues to increase. According to the definition of AFAD, "Disaster is a natural, technological or man-made event that causes physical, economic and social losses, interrupts or interrupts normal life and human activities for all or certain segments of the society. Disasters are collected in two types natural and human disasters. In general, a disaster can be defined as "a shocking event that seriously disrupt the functioning of a community or society, by causing human, material, economic or environmental damage that cannot be handled by local agencies through standard procedures" (Jiang, and Yuan, 2018: 2). Significant advances in RFID, satellite and other related asset visibility Technologies are important for unmanned aerial vehicles, emergency responders. According to the classification of World Disaster Report, types of disasters are divided into five groups as biological, geophysical, hydrological, meteorological and climatic. Although disasters vary according to their types, the most important catastrophe affecting human life and countries is the earthquake, which is one of the geophysical disasters. EM-DAT is the Emergency Events Database at the

Université Catholique de Louvain. It collects and compiles information on 'natural' and technological disasters from public sources. EM-DAT data doesn't include war, conflict or conflict-related famine disaster events. Natural disaster data includes: weather-related events (meteorological, such as storms and extreme temperatures; hydrological, such as floods, mudslides and pluvial/flash floods; and climatological, such as droughts and wildfires), geophysical events such as earthquakes, and biological events/epidemics. Data about technological disasters is not included in this analysis. (World Disaster Report, 2018). What to do in case of a disaster are: establish a network, planning, demand planning and needs identification, planning and mitigation, documentation, search and rescue, first aid and health care, fire and hazardous materials, special intervention evacuation, social services, rehabilitation, funeral procedures, agriculture services communication transport storage storage, infrastructure services debris removal temporary settlement, purchase, financing accounting financial damage detection, customs security operations external organizations coordination personnel services personnel jobs to buy. In general, disaster relief activities are distributed from the supply point of first aid supplies, food, equipment and search and rescue team to a wide range of geographically dispersed destinations in the disaster area, evacuating the victims from the disaster area, and transfer activities are related to (Barbarosoglu et al., 2002: 118). In particular, the needs of vulnerable people in need and to ensure that both products and materials and the relevant information are storage and origin point, needed for efficient streaming to the last point planning, implementation and control of activities is necessary. This constitutes disaster logistics (Thomas and Kopczak, 2005: 2) (Börühan, Ersoy, 2013:3). Management of logistics performance in the event of a disaster is called rescue operations, disaster logistics. The best definition for disaster logistics is the management of information, transport and storage of goods in a disaster area. Relief agencies and organizations involved in disaster relief activities, such as the United Nations, state that there is a serious disruption of the functioning of a society that causes widespread human, material, economic or environmental losses that exceed the capacity of those affected by a disaster (Jiang and Yuan, 2018: 2). Emergency logistics is "the support function that ensures the timely delivery of emergency resources and rescue services into the affected regions so as to assist in rescue activities. Disasters are basically divided into 5 times. These classes are; Geological disasters, Climatic disasters, Biological disasters, Social Disasters are technological disasters. According to EMDAT data, there have been 10000 disasters in the world since 1900. The killing of 10 or more people for disaster, (The losses are also considered dead. 100 people must be affected by the disaster. Local authorities also need to declare a state of emergency. According to the EM-DAT database, drought, earthquake, epidemic, extreme temperatures, , insect infestation, slides, volcanic eruption, wild fires, wind storms, industrial accidents and transport accidents are considered as disaster (UN / ISDR, 2007; EM-DAT, 2007). The work to be done during a disaster consists of intelligence and planning, financial and administrative affairs, operations and logistics. disaster logistics plan consists of communication, transportation, storage, infrastructure services, temporary settlement services, debris removal services, external organization coordination, personnel health services. According to the Report prepared by the Research Center on Disaster Epidemiology in 2016, 345 disasters occurred in 113 countries in 2015. 22.773 people died in these natural disasters. The economic loss of \$ 66.5 billion affected the lives of 98 million people. Earthquakes, extreme temperatures, war, etc., cause physical and economic, environmental and cultural damages. According to the World Health Organization, natural disasters are disasters caused by natural processes or natural events. Technological, industrial or infrastructure disasters, frequent accidents due to human activities, other disasters, any natural or non-technological disasters, an example of human movements, such as refugees, are referred to as disasters. The United Nations and the World Health Organization distinguish between natural and technological disasters (UN / ISDR, 2007; IFRC, 2007). The emergency logistics service which can respond to the requests for assistance in the affected regions effectively and very quickly. (Mulyono. Ishida, 2014). Humanitarian logistics aims at the rapid gathering of people affected by the disaster and the immediate delivery of humanitarian aid. For this purpose, the logistics operation should be well planned and the deliveries must be simulated Logistics is of paramount importance in disaster relief. In the supply of basic needs of health, it is important to follow the material through the transport chain. This research's aim is review the emergency logistics, disaster logistics literature. Emergency, disaster logistics are differnt from business logistics. We taked the problem identification and literature review and resourch the tecnology of disaster logistics in this research.

2. LITERATURE REVIEW

Disaster logistics, also known as humanitarian aid logistics, is designed to cover the needs of damaged and vulnerable individuals and to alleviate their suffering. .Disaster logistics; preparation, planning, procurement, transportation, storage, monitoring and control, customs clearance (Thomas and Kopzack, 2005; 2). Kunz and Reinerb (2012) stated in their meta-analysis that modeling and simulation is the most commonly used method in the studies conducted between 1993-2011. Natural events, climate change and urbanization are pushing the pressure on disaster relief operations. Decision science and ICT technologies can be effectively used to face humanitarian logistics. Comprehensive research on disaster management can be divided into 5 groups according to

their methods: Model developed studies, literature review studies, survey method studies, interview method studies, case studies. One of the important factors in disaster logistics is to work in cooperation with charitable organizations such as AFAT Akut Kızılay. There are lots of researches on disaster logistics. The most of these researches is about models. In recent studies on disaster logistics, it is seen that the methods for model development have been emphasized and the model development method has a tendency to be used for location selection. At this point, the importance of location selection supported by quantitative methods emerges. Indeed, Peker et al. (2016), Rezaei-Malek et al. (2016), Konu (2014) and Gözaydın and Can (2013) emphasize the increasing importance of site selection in their studies. The topic (2014), in its study, underlined the importance of pre-positioning humanitarian aid for a possible earthquake in Istanbul and developed a site selection model in the light of the information contained in the JICA (Japanese International Cooperation Agency) report. In this model, there are 29 demand points and 29 potential disaster response and assistance centers. Gözaydın and Can (2013: 18) emphasizes that central and local centers should be established where materials, tools and equipment to be used in search and rescue, medical assistance and humanitarian activities. Those should be stored before a disaster in order to be able to be quick and effective in the response phase of disasters (Şen and Esmer 2017). Green and Kolesar, Analyzed previous or papers on urban emergency services and regular emergencies; Wright et al., extended the literature scope into homeland security such as traffic and cyber space safety in routine emergency management, but not in the context of large-scale disasters; Altay and Green III, provided disaster operations management literature classification in six dimensions. highlighted the gaps in multi-agency coordination, soft or, the use of sensing technology, recovery planning, business continuity, and management engineering. Simpson and Hancock, discussed the literature on both urban emergency service systems in early days and of large-scale disasters in 21st century. Identified a detailed literature citation network. Suggested four areas of research opportunity. Caunhye et al, reviewed optimization models in emergency logistics in the pre-disaster operations phase and post-disaster operations phase. Analyzed the literature contents in detail through the perspectives of OR models, decisions, objectives, and constraints. Galindo and Batta, extended Altay and Green's survey on disaster operations management and added analysis on most common assumptions in the field. They aimed to increase the performance of disaster relief by clustering inventory regions with their articles. They stated that logistics and inventory are the most important factors in meeting the aid requests during disaster relief. It was emphasized that the amount of inventory prepared before the disasters in the shelters was sufficient for only a short period of time and chaos could be created due to the differences in the inventory level in the shelters. Topla, 2016, p 2018) Konu, (2014), . Peker Etc (2016); Vanajakumari Etc (2016); Rezaei, Malek and Etc, (2016), , Didrichs Etc (2016), Burkart Etc (2016), Douglas, Etc (2016), Tanyaş (2013 a), Tanyaş (2013 b), Gözaydın and Can (2013), Bozorg, Amiri Et Al (2013), Afshar And Hanghani (2012), Afshar and Hanghani (2012), Lin Etc (2009), Altay Et Al (2009) researched on model development. Bealt and Etc (2016), Köseoğlu and Yıldırımşı (2015), Bastos (2014) studied on literature. Van Wessenhove And Martinez (2012), researched sample case. Bealt et al. (2016), on the other hand, emphasizes that humanitarian organizations and logistic activity providers should cooperate in the fight against disasters in the study conducted to improve humanitarian logistics. Peker et al. (2015) developed a model for determining the most suitable distribution center location in Erzincan. In this model, analytic hierarchy process (AHP) and VIKOR method are used. According to this, the most important criteria to be used in the selection of the most appropriate distribution center for Erzincan are "location, infrastructure and cooperation.. Raich et al. (2014) aimed to identify the factors affecting the supply chain in disasters and to show how to optimize the performance among rescue teams in order to be better prepared for disasters. Altay et al. It has formed an integrated logistics model based on the elements of management theory. Disaster logistics; Strategic planning stage, which includes important applications such as supplier selection and communication protocols, Preparation stage where the location and quantity of the aid materials to be stored are determined Pre-incident response stage, where decisions related to the detection of an impending disaster such as hurricane What happens immediately after a disaster occurs and post-incident intervention phase. The most important phase is the strategic phase. Kovács and Spens stated that the most challenging situation in disaster logistics is coordination, and that this difficulty can be attributed to different stakeholders. Therefore, he emphasized that stakeholder theory should be applied to disaster logistics (2009: 506)(Şen and Esmer 2017,:233),,

3. DATA AND METHODOLOGY

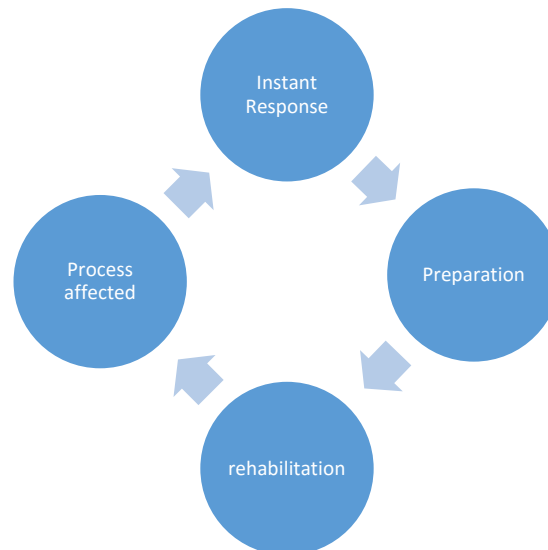
3.1. Disaster Response

Disaster and emergency logistics consists of processes and systems that can effectively mobilize people, resources, skills and knowledge to assist victims affected by disasters (Kadıoğlu, 2011, 6). Disaster logistics; pre-disaster preparedness, disaster response process and post-response logistics activities can be evaluated in three parts. Disaster Response logistics process activities are pre-assessment and needs assessment, logistics action plan, monitoring, evaluation and reporting of the disaster

response process. The logistics of humanitarian aid is disaster response process at emergency situations affecting people. It is called Humanitarian Logistics. Humanitarian Logistics is preparation of disaster management, intervention, improvement and reconstruction. Which is important in aid logistics; the right material, the right person, the right amount, the right quality, the right time and in the right place to transfer.

The federal government plans disaster / emergency response with two framework approaches. National Event Management System (NIMS) and National Response Framework (NRF – National Response Framework). Due to the geographical location of Japan, earthquake, tsunami, typhoon and so on. It is a country where natural disasters occur frequently. Since it is a country to be taken as an example both in precaution and in the field of education with years of experience An analysis of Japan's disaster management structure and plans is planned. Responsible for the organization and coordination mechanism for natural disasters in Japan. Disaster Prevention Council (DPC). DPC, like the US counterpart, FEMA local governments and the level of government at the national level authority is equal to the state minister. But unlike the United States, the DPC is independent of the government and directly attached to the Prime Minister Disaster management structure in the UK is centralized in contrast to the US and Japan. Logistics is of paramount importance in disaster relief. In the supply of basic needs of health, it is important to follow the material through the transport chain. Although disaster logistics processes are handled differently in the literature, this study is based on the disaster relief activity process which consists of three stages: preparation, immediate response and remediation of Kovacs and Spens (2007). The following Figure 1 presents the disaster management cycle.

Figure 1: Disaster Management Cycle



These three stages are also referred to as Disaster Management Circle. The place of logistics and supply chain in Disaster Management Circle is manifested in preparation, immediate response and improvement stages of this process. All these three stages are also described as the flow of humanitarian logistics.

Disaster and post-disaster process flow can be listed as follows:

1. Preliminary Assessment and Needs Assessment (as a result of the pre-disaster plans and preparations and the preliminary assessment at the time of the disaster, the required information, materials and human resources of the materials requested during the disaster response and assistance process are delivered to the region as soon as possible, with a regular and accurate information flow. supplied),
2. Logistics Action Plan (Determining the most appropriate transportation mode of material and human resources to the region by taking into consideration the region where the disaster occurred, likewise determining the transportation and storage of needs),

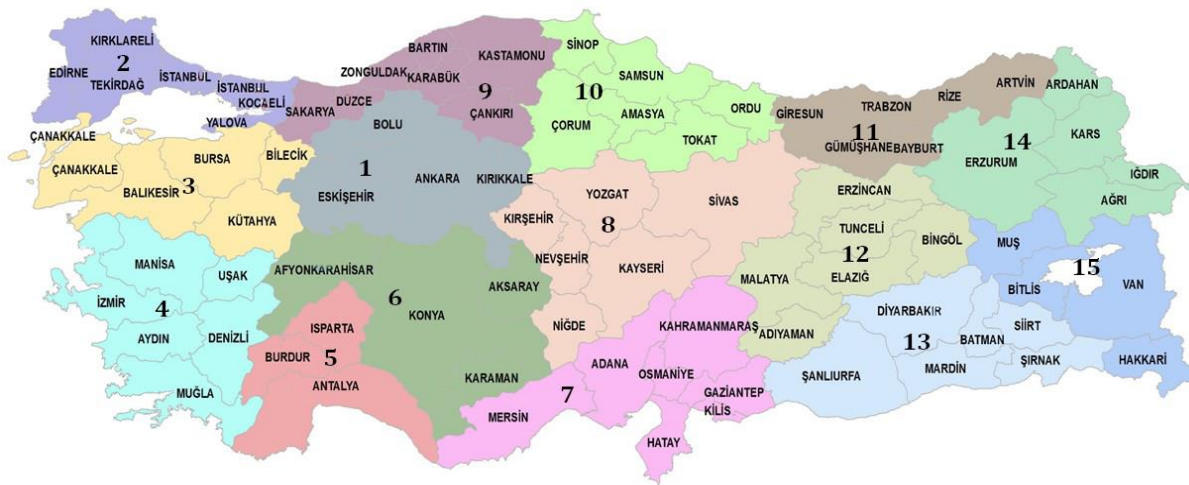
3. Implementation of the Logistics Action Plan (shipment of existing materials, personnel and equipment to the disaster area in accordance with the itinerary plan),

4. Monitoring and Evaluation of the Response (evaluation and analysis of the disaster process by a commission that is not involved in the activities, reporting the results and storing them in case of need in the following cases).

In the digital world, each individual uses almost one smart device (phone, tablet, etc.). The available equipment of smart devices includes cameras, GPS (global positioning system) and sensors (proximity, gravity, humidity, temperature, pressure). Data can be received by these hardware in smart devices and information can be transferred to smart device users at the same time. With this data exchange, smart disaster and emergency applications to be developed can be prevented or minimized before many hazards occur. Another area that will provide data flow to smart disaster and emergency applications is smart cities. Intelligent disaster and emergency applications can be created with the data obtained from smart cities through information communication technologies. Information and communication technologies that facilitate human life are no doubt disaster and emergency Information and communication technologies that make human life easier will undoubtedly provide great benefits in disaster and emergency management. In a world where adaptation with technology is provided in all areas of life, adaptation of disaster and emergency management with technology is inevitable (Çakır, 2018, 1131).

The Istanbul Provincial Directorate of Disaster and Emergency established a radio channel called AFET FM. Citizens listening to this channel will have access to the most up-to-date information in case of a disaster. Another smart application of Disaster and Emergency Management Presidency is Earthquake Mobile application. Thanks to the earthquake mobile application, it has provided fast and reliable information about earthquakes occurring within the borders of the country and enables the earthquakes to be seen on the map (AFAD, 2017a).

Figure 2: Logistic Region Map



Source: AFAD, 2017 https://www.afad.gov.tr/kurumlar/afad.gov.tr/2419/files/Afet_Mud_Pl_ResmiG_20122013.pdf Accessed Date .p 28.

AFAD organizations in Turkey, the country's authority on disaster management and disaster and emergency relief agencies and is authorized as an international organization. Identify existing resources against a possible disaster, plan, organize, prepare tool equipment and tools, develop capacity, utilize new technologies, set up, develop and test early warning systems, organize training and exercises, and need to make evaluation. Logistics and maintenance services to groups of logistics services by AFAD in Turkey have been described as follows: The same donation warehouse management and distribution services, technical support and supply consists of five service groups such as international support and cooperation, and resource management. 15 regions have been established for logistics planning and cooperation Minimum 72, Maximum 120 hours "self-sufficient personnel, tools, equipment and social (shelter, nutrition, hygiene materials, etc.) and will meet the needs of the office. Any additional needs that may arise during the specified period of time or during the working period will be provided by the Service Groups Logistics Service

Group. Therefore, each service group will make its own logistics planning in advance within the scope of disaster preparedness and build capacity if necessary

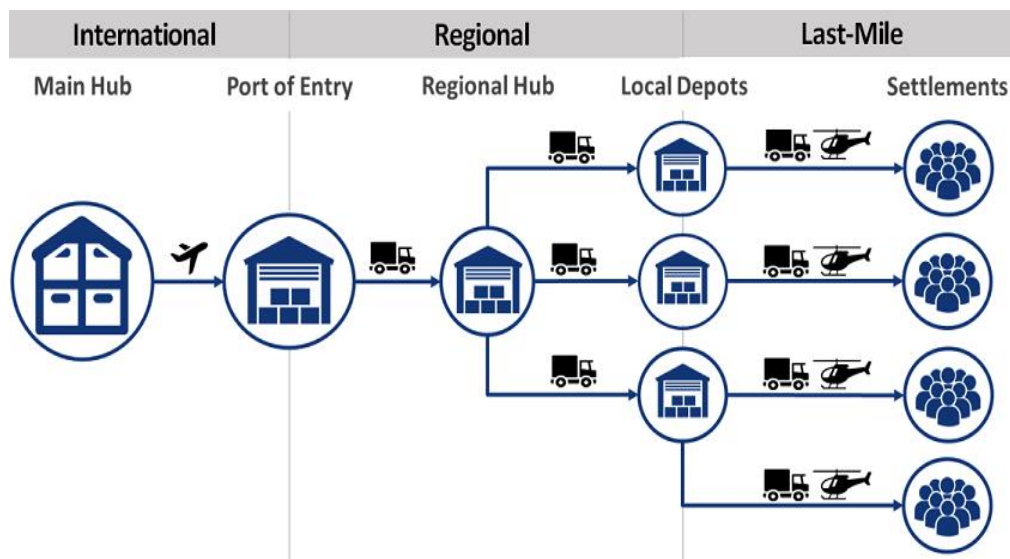
3.2. Logistics

The ability to calculate Logistikos in Greek is derived from the French Logistique words (to present the winter residence). The concept of logistics has been obtained by combining the concepts of calculus and logic of the soldiers' mansion. It is also mentioned in the encyclopedias that the account which consists of the combination of the words Logic and statistics means book science. According to another view, it is suggested that Logic and "Statistics birleş are formed from the merger (Russell, 2000). These words express the concept of statistical logic in Turkish terms and do not show the concept of logistics completely. The units formed by the officers responsible for the distribution and financing of the needs in ancient Greek, Roman and Byzantine civilizations were called Logistikas. The word logistics in the Oxford University Dictionary; 'Military science is defined as a branch of personnel, equipment, material handling, maintenance and provision'. Logistic services in the Ottoman Empire began with the names of derbentcilik (bridge and road maintenance and security), maritime and meremmetcilik (Wikipedia, 2012). When the disaster planning and response agencies in the world are examined, it is seen that there are central, local and mixed structures and there is not a single sample world.

3.3. Unmanned Aerial Vehicle- UAV

UAVs have enjoyed widespread adoption in the humanitarian sector in recent years, particularly for applications such as damage assessment and aerial monitoring.

Figure 3: Drone Logistics for Disaster Response



Source: <https://www.tslab.org/project/drone-logistics-disasters/> Accessed Date 20.11.2019).

Recently drones, drones and disaster logistic materials were used in the unmanned aerial vehicle season. While similar to Amazon, DHL and recently UPS have been gearing up to use drones to cut costs of delivering consumer goods. A company called Zipline is applying similar technology to delivering life-saving medical supplies to difficult-to-access places ranging from less developed countries to natural or humanitarian disaster zones—and possibly even warzones (Roblin, 2019, p 1).

4. Logistics Preparations

Businesses need to develop effective policies in order to adapt to challenging competition conditions and to analyze their competitors' conditions and keep their conditions under control. Accurate evaluation of the competitive conditions required for

profitability, continuity and growth, which are the objectives of the enterprise, are among the strategic objectives. Businesses provide customers with high quality, affordable goods; in the right place, at the right time (Taşkın and Durmaz, 2012: 32). Considering the fact that Turkey's earthquake zone, disaster, disaster scenarios suitable in times of crisis, it is necessary to be prepared in the transportation field. Disaster events are just like crisis events. The stages we need to address in the crisis management process are divided into five phases: 1 Determination of Early Warning Signals, 2. Preparation and Protection, 3. Limiting Loss and Loss by Controlling the Crisis, 4. Returning to Balance, 5. Learning and Evaluation. However, since the crisis caused by the earthquake is a crisis that occurs without an early warning signal, the crisis management process is different from other crisis situations. Crisis preparation includes the creation of a crisis plan, testing of the plan, training of all personnel, preparation of the crisis handbook and the creation of a crisis management team, and the establishment of a crisis management center. Before the crisis, if there is no crisis plan prepared, the situation will be twice as difficult. Difficulty and urgency will ultimately lead to numerous errors. If there is no crisis plan of a provincial / district / neighborhood established with civil defense, police, national education, police, military, prosecutor, fire department, health and municipal non-governmental organizations, the crisis plan should be prepared. The crisis plan should cover the activities before, during and after the crisis (Adigüzel, 2000: 13). In case of a disaster, it is necessary to prepare before the disaster, to store information and materials, to establish a software infrastructure that will ensure coordination within and outside the country, to distribute the task of the team to be assigned, and to define the task. Pre-disaster sequence and post-disaster scenarios should be prepared, which means of transportation should be determined and which route to use. Disaster scenarios are written before the disaster comes to the division of labor. As speed is life-saving, the expertise of the competent persons involved in transportation is important. In order to benefit from information and communication technology, a network structure that allows access in disaster should be established. Transportation networks are strengthened through the donations of civil society organizations and volunteers. Strategic points are determined and the closest location to transportation is chosen as the center. For all modes of transport, the nearest center should be selected as the most convenient center. Earthquakes frequently occur in countries such as Tokyo and San Francisco. In countries where volcanic eruptions and hurricanes are experienced, evacuation plan logistic support plan should be prepared with proactive approach. Since all communication channels will not work when the energy infrastructure is damaged, energy supply should be provided underground in risky areas. Disasters should be informed in advance about all disasters. People in the area should be warned with warning systems.

- ✓ Again in the relevant regions of various warning systems
- ✓ Establishment of these systems with various systems.
- ✓ To cover the entire region
- ✓ Regulation is required.

In addition, disasters can damage the energy infrastructure. In the event of a disaster, bridges can be destroyed in the country. The inadequacy of air and sea voyages due to confluence, lack of infrastructure of roads and railways, height limits in tunnels and bridges adversely affect the conditions. Therefore, according to different scenarios, alternative transportation vehicles, transportation routes and distribution channels should be determined beforehand (Wassenhove, 2006: 480-481; Altay, Prasad and Sounderpandian, 2006: 2; Kovacs and Spens, 2007: 102). In the post-disaster phase, basic needs, medical equipment become an important part of disaster logistics. Therefore, a disaster plan should be prepared in accordance with various scenarios by considering all kinds of situations. Job descriptions should be prepared as contracts and legal documents should be made in advance with the suppliers who will supply the hospital and other materials. In the scenario, which stores will be used in inventory management and storage should be included.

Periodic maintenance of stocking disaster material, determination of transportation capacity and contracting of transportation companies to be worked on, road maps should be determined. Lack of communication with suppliers during the operations of the local and regional partners of the relief agencies may cost the lives of the victims. Disaster relief activities in preparation phase. Aid organizations that are in charge of the project may set up collaborative platforms such as the United Nations Joint Logistics Center (UNJLC) or the Disaster Relief Network operated by the World Economic Forum. It can provide partnerships with the United Nations for use in humanitarian operations (Kaatrud et al. 2003,13). The selection of experts in disaster management is important. Disaster management, unlike other business management crises, the intervention affects the country or a part of the country, and thousands of people need emergency at the same time. All processes of management, planning, organizing, coordinating, communication, ordering, supervising / evaluation etc. are also important in disaster management. The most important situation that emerges after the disasters is the lack of coordinated cooperation and plans against disasters (McClintock 2005, Murray 2005,

Sowinski 2003). Knowledge management: Obtained from disasters a database created by sharing experiences and information for effective disaster management It provides. Logistic activities should be at the center of the preparatory phase. Financial resources enough money, help to provide financial resources such as the fund and to effectively distribute it to the region of need.

Cooperate throughout the process by making agreements with communities that will ensure unity in all these challenging processes, such as government, military enterprises, or other charitable organizations. Inventory locations should be shown in the plan, and who should work in the inventory and warehouses should be specified in the job descriptions. The warehouse should be close to the center, the products should be packaged and kept in cold conditions. It is necessary to determine the officers of the warehouse transfer vehicles, to specify the places where the vehicles will go, to determine where the fuels to be put in the vehicles will be taken and the way the payments will be paid. It is also important to make a financial plan for the unexpected costs and how they will be paid.

Disaster logistics is important at this point. Disaster logistics is described as efficient and cost effective flow, storage, planning, implementation and control of goods, merchandise and related information from the first production point to the end consumption points in order to satisfy the needs of the people. Stages of disaster logistics are pre-disaster preparedness, disaster response process and post intervention logistics activities. Disaster logistics must be event-based and dynamic. Due to every disaster have its own features as the type, severity, according to temporal and geographic features and the sensitivities, disaster logistics is an issue that a constantly working area and requires the development of new approaches. Therefore, the continuous measurement of risk and disaster management plan always needs revision (Işıktekin, 2015, 1).

The requested purchased materials must be safely transferred at the right place at the right time at minimum cost. Who will provide logistics support, where warehouses will be installed, where waiting areas will be established, the cost of the warehouse is calculated, four indicator models for Disaster logistics developed by Davidson (2006) are based on commercial and military performance measurement principles. The indicator set used in disaster logistics includes the following four items:

The scope of the appeal, which is intended to show how well the organization has responded to the appeal, is an operation in finding donors and providing products. There are two special precautions. Recommended: (1) Scope of appeal = pledged items / required items, (2) 2% of delivered goods = (products / items delivered on site) * 100%.

1. Donation-delivery-time is a measure of how long it takes to deliver a product. Once a donor has promised to make a donation, he is delivered to the country of destination. This is measured by either (1) the average number of days or (2) the median number of days.
2. Financial efficiency intended to include the financial aspect of providing assistance. Three metrics were proposed:
 - (1) relative metric = (Actual cost - budgeted cost) / budgeted cost,
 - (2) absolute metric = actual cost - budget cost, (3) shipping cost = shipping cost /total amount.
3. The accuracy of the assessment is to indicate how much the final budget of the operation is.
4. This does not only include financial changes,

National and local government, through which humanitarian organizations must often coordinate their activities, may be severely impacted, or even uprooted in the case of a conflict situation. Preparing disaster scenarios and performing exercises of these scenarios such as tunnels, roads, bridges, overpasses in the event of earthquakes in the event of panic, security problem, measurement of disaster risk, disaster logistics support operational planning should be done.

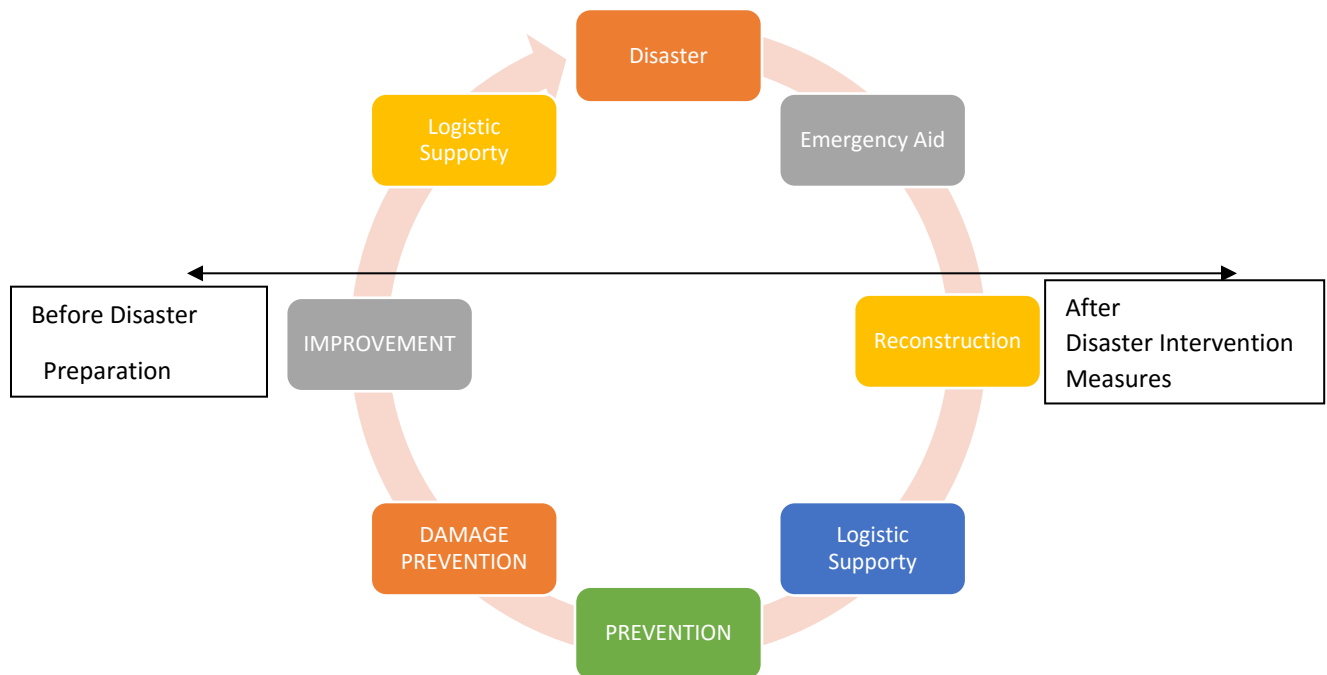
The effectiveness of a disaster scenario is measured during the exercise. A logistics support plan should be prepared for this. The most important logistics activities are rescue activities and transporting like food and beverage fundamental human needs. Each country should prepare a logistic plan according to its structure. Turkey, terrain, due to the negativity of landforms and meteorological conditions are often faced with major natural disasters. Natural disasters cause significant wounds in the economic and social structure of our country. Rapid population growth and unplanned urbanization increase natural disaster losses <https://www.istka.org.tr/media/24626/%C4%B0stanbul-%C4%B0li-afet-loger-plan%C4%B1-k%C4%B1-Guide.pdf> (Accessed on 12.10.2019). In order to develop disaster logistics, it is necessary to examine the studies conducted in the literature and apply these studies.

4. FINDINGS AND DISCUSSIONS

Emergency scenarios of logistics are strongly affected by uncertainty. The uncertainty is in the relief request resources and equipment provided by public and private actors, uncertainty in the conditions of the connecting network. At this aim both optimization and simulation approaches must address uncertainty for emergency logistics.

In the modern disaster management concept, pre-disaster prevention activities such as mitigation of losses and losses, preparation, prediction and early warning, and understanding of disasters are considered as “Risk Management”; post-disaster studies such as impact analysis, intervention, improvement and restructuring are considered as “Crisis Management ((Kadioglu, 2008).

Graffic 1: Disaster Management System



In this context effective disaster management, pre-disaster, disaster and post-disaster studies (Demirci and Karakuyu, 2004). The disaster plan should include the following stages before and after the disaster: Emergency Aid, the Reconstruction, logistic Support, prevention, damage prevention, improvement, logistic supporty.

Logistics efforts, as follows:

Assessment: At the time that a disaster, logistics supports must to be quick and accurate. Hence, team with individual expertise usually arrive area within the first 24 hours of a crisis.

Appeals Management: A preliminary appeal for donations of cash and relief supplies is launched often within 36 hours of the onset of the disaster.

- Assessment
- Appeals Management
- Operations Planning
- Mobilization

- In-country Operations
- Coordination with other HROs
- Reporting
- Disaster Response Activity
- Operations Timing

Mobilization: International transport capacity is mobilized and supplies are sent directly to the afflicted country, where relief aid must clear customs and then be transported by local transport to warehouses nearest the disaster site. <http://www.fritzinstitute.org/PDFs/WhitePaper/EnablingDisasterResponse.pdf> Accessed Date 10.15..2019).

4.1. Transportation Mode

In case of the disaster, the mode of transportation to the disaster area should be determined and the companies that will provide access to the storage center should be contracted. In order to use a region as a disaster management area, preparation of a disaster plan scenario (material, tools, materials and processes), determination of the usage permission, contract, distribution centers, warehouse areas of the region (material, tools, equipment and processes), creation of external storage conditions, List of the aids at the customs gate points should be listed, created, and the scenario of the transport operations should be written, in which mode of transport the aid will come. The reliability, reference and business portfolio of subcontractors in the supply of disaster materials should be examined. Care should be taken to store and stack to prevent waste of material. For urgent needs, materials such as tents, blankets, beds, heaters and kitchen sets with a long shelf life should be provided by signing protocols with suppliers. Several firms should be preferred instead of one. . In case of disaster, the standard of the material to be taken should be determined in advance, how many of each material will be, the characteristics and the standard.

4.2. Transportation Management

In disaster logistics, logistics management infrastructure should be established in order to transport the materials to be transported in the scenario in the right place, at the right time, in the right way, with minimum cost and safely. The transport mode must be selected according to the material. For this purpose; Vehicle types (frigoferic, container carrier, closed body, etc.) and capacities related to different material types should be determined, which way to use in the disaster situation, who is responsible for loading and unloading, the first degree loading and unloading methods in disaster should be determined. The vehicle tracking system should be created according to the computer network on which the vehicle goes where it should be monitored (GPS, GPRS, GIS). Transport management information technology (TMS). , maintenance of vehicles, training of personnel using the vehicles, the penalties they receive, and the inspection of the vehicle should be followed. Material delivery and delivery of materials from vehicles should be established. Considering that even the aid vehicles could not enter the city due to traffic congestion in the 1999 Earthquake; digital routing signs, which will be located at the main junction points in the city and can be integrated with smart transportation systems, will be able to direct the citizens to the roads with less traffic in order to prevent traffic congestion in case of a disaster. Thanks to these signs, which can be controlled centrally by the provincial disaster and emergency directorates, the traffic on the main roads leading to the disaster site can be sent to the side roads (Çakır, 2018, p 1135). Thanks to intelligent transportation systems, traffic lights can be remotely controlled and directed to meeting centers. Considering that the telephones cannot be used in case of disaster, wireless communication network should be established in logistics management.

4.3. Warehouse Management

Warehouse Management, one of the most important issues to be considered when designing warehouses should be in a way that will allow for development when capacity increase is made in the future within the framework of increasing risk (Tanyaş, 2012). Logistics management includes storage. Warehouse location should be easy to access in the right direction in the right area, the size of the land should be appropriate. In order to provide food aid in disaster, it is inevitable to stock up basic materials and keep them ready. Minimum requirements for proper storage service; the depot warehouses should be treated as regional and local distribution centers. Inventory management system should be dry. Periodic tank counting should be done to eliminate deficiencies. Storage area to be used for disaster should be close to the center, storage should be provided in accordance with climatic conditions, a separate stock card should be opened for each material and stock code should be given to all the materials

defined in the content. The warehouse management center is equipped with a loading and unloading system (barcode, FRID, WMS, etc.) infrastructure, camera system, lighting warehouse management information board, equipped with a loading and unloading system, periodic. Reporting in order to control, monitor and trace the materials stored in the warehouse, periodic reporting should be made. All processes and material inputs and outputs made to the support process in the logistics process and operations should be reported. In the light of the data obtained from the prepared reports; Defects should be identified. Natural disasters such as earthquakes, tsunamis, tornadoes, chemical explosions, etc. are a part of life and many countries around the world share this fate. According to United Nations Disaster Assessment and Coordination Team, 2006: 1). Disaster logistics is the planning, implementation and management of the efficient and cost effective flow and storage of aid materials and the necessary information from the production points to the disaster areas where they will be consumed. Disaster logistics functions include preparation, supply, transportation, tracking, storage, inventory management and customs operations (Köseoğlu, 2011: 2). First-aid in an emergency transportation of materials, communication equipment, repair materials and electrical power required for water supply, and transportation of food, temporary shelters and officials to the required places. Disaster logistics operations require the inclusion of a diverse number of independent NGOs and governments, as well as the use of different modes of transport. Such operations are hampered by logistical bottlenecks and managerial reasons due to lack of infrastructure in the receiving region (Oloruntopa et al., 2006:116). Humanitarian operations require the supply, storage and distribution of basic aid materials to those in need. Humanitarian aid logistics information systems; throughout the organization, the logistics units are integrated into the wider human supply chains and the development of logistics activities (Köseoğlu, 2015, 20).

5. CONCLUSION

In the event of a sudden disaster, a logistics plan should be prepared for the delivery of health services, basic aid, rescue, first aid and reconstruction of the living areas after the disaster. Since technological innovations are life-saving in intervening people competing over time, drones with unmanned aerial vehicles, remote controlled, semi-automatic or fully automatic flight capability should be used. Small, medium and large-scale monitoring receiving images from various angles, including various sensors such as cameras, laser scanners, navigation and inertial sensors; it sends. In disaster response, effective communication, information sharing and informed decision making play an important role in disaster logistics in order to determine transport capacity? Modern technology also shows itself in the field of logistics to save human life. Since the technology used in the disaster is of great importance in saving human life in a sudden heart attack, how effective the depibrillator is for cardiac massage, state managers have technological tools and personnel who know how to use these tools in disaster preparedness and whether the plan is suitable for this area with continuous training exercises need to be done. With the integration of geographical positioning systems such as (GPS) and unmanned aerial vehicles systems, many rescue and evacuation operations will be carried out in hazardous environments after the disaster victims of search and rescue activities are found. Since the structure of the disaster area will endanger the safety of those going to rescue, carrying out inspection, thermal scanning and laser scanning operations should be carried out. The conditions and capacities of the airlines, ports, railways and highways should be determined, the storage facilities and capacities of the organization beyond its own means. it should be a place where it can be done easily, regional Warehouses (Post-intervention service, distribution warehouses), Local Warehouses (First Response warehouses, small scale warehouses) should be prepared, refrigerated carriers should be available, transportation with sufficient vehicle fleet, shipment will be provided in the fastest and safest way, informing team officials and Crisis Management Center monitoring, evaluating and ultimately reporting comprehensive activities by the team planning should be implemented.

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A QUALITATIVE RESEARCH ON PERCEIVED AUTHENTICITY OF CORPORATE SOCIAL RESPONSIBILITY

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Permemant link to this document: <http://doi.org/10.17261/Pressacademia.2019.1174>**Copyright:** Published by PressAcademia and limited licenced re-use rights only.**ABSTRACT****Purpose** - With the increasing CSR efforts and consumer skepticism towards CSR, a deeper understanding regarding the dimensions behind the perceived authenticity of CSR becomes vital. With this purpose, current paper explores the dimensions of perceived authenticity in CSR domain from the perspective of consumers and company executives in a developing country context.**Methodology** - Current paper reviews the previous literature on perceived authenticity of CSR efforts and includes in-depth interviews with company executives responsible of CSR efforts from a sample of local and multinational companies operating in Turkey, and consumer focus groups, using in vivo and provisional coding in the first degree, and focused coding in the second degree with respondent validation.**Findings**- This paper's findings indicate that perceived authenticity of consumers for CSR efforts is influenced by congruence, commitment, candidness and community link as previous research emphasized. This paper contributes to the literature by bringing creativity of CSR effort and consumer's engagement with the CSR effort forth as two new dimensions affecting the perceived authenticity of CSR.**Conclusion**- Detailed exploration of perceived authenticity of CSR efforts advances the research and may help to impair the widening authenticity gap between the perceptions of the business and society in CSR domain in a developing country context.**Keywords:** corporate social responsibility, perceived authenticity, perceived innovativeness, consumer experience, focus group**JEL Codes:** M14, M31**1. INTRODUCTION**

Corporate social responsibility's importance for companies has been constantly increasing since 1990s. In 2017, Fortune Global 500 companies spend over \$15 billion a year on corporate philanthropy and spearhead a wide variety of corporate social responsibility (CSR) initiatives (Skroupa, 2017). Furthermore, for the first time in the history, all industry sectors show a healthy rate of CSR reporting with every sector's reporting rate over 60% in 2017 (KPMG, 2017).

Unfortunately, despite all these efforts, not every company gets CSR concept right. In addition, even not every good CSR effort is able to create the positive social impact it would like to create for company's stakeholders as we have experienced in Dove's "Real Beauty" project. In this CSR project, the concept of six different 'body-shaped' bottles to celebrate body diversity were created, but stakeholders labelled the concept offensive and patronizing, thus the project never realized and never reached the aimed impact or change. Similarly, in Pepsi's advertisement with Kendall Jenner joining a non-specific protest march, ending with her handing a can of Pepsi to a police officer, the message seemed cynical, inauthentic and trivialized serious protests (Solon, 2017).

As Werther and Chandler (2005) and Agudelo et al. (2019) emphasized, CSR today becomes a strategic necessity based on a genuine commitment and self-analysis, instead of a minimal commitment with a short-term benefit. Although literature shows that CSR generally creates positive outcomes in financial performance (Orlitzky et al, 2003), corporate reputation (Brammer and

Pavelin, 2006), re-purchase intention (McWilliams et al., 2006) and brand attitude (Ferrell et al., 2018); stakeholders may view one CSR effort positively and hold a negative opinion for another one (Aguilera et al., 2007; Pelozo and Shang, 2010). Meaning that although a company may act in a socially responsible manner, it does not necessarily show that the company is perceived as socially responsible (Mohr et al., 2001; Webb and Mohr, 1998). The case of ExxonMobil is an unfortunate example of this probability where cutting a check to its foundation to help promote "global health, education and economic opportunity" is not perceived as social responsibility since the stakeholders' could not link the effort to its core business and no empathy derived for the CSR.

Literature shows that when CSR is perceived merely as a window dressing strategy (greenwashing), consumer skepticism increases, and therefore companies' stakeholders develop negative perceptions (perception of inauthenticity) and reactions that harm the companies by even hurting the brand loyalty and re-purchase intention (Aguinis and Glvas, 2013; Bavik, 2019).

That is why the concept of authenticity as well as understanding the dimensions of authenticity become a necessity for the companies to implement right CSR projects, and to be perceived as genuine. Although authenticity is examined in various marketing literature (Mazutis and Slawinski, 2014; Perez, 2019), the understanding of its role in the context of CSR moved forward first with Alhouti et al.'s (2016) research and recently with Joo et al.'s (2019) research on CSR authenticity antecedents and outcomes.

Though the research on CSR in developing countries are increasing, it is still profoundly under-researched (Visser 2009) Additionally, as Fernando and Lawrence (2015) argue, literature on management and CSR shows that contextual structural differences such as historical, cultural and customary traditions, and organizational, industrial and even level of economic development partly drive people and businesses to perceive and practice CSR in different ways (Hofstede, 1980; Hofstede, 2001; White, 2008; Azmat and Zutshi, 2012). CSR effort of organizations is not only a business decision but also a cultural or managerial approach based on decisions affected by the expectations of the consumers' and stakeholders' themselves. Thus, this paper, as a first to deep dive perceived authenticity concept in CSR in Turkey, maps the dimensions constructing the authenticity perception of consumers and the companies in CSR. To satisfy the dearth of research which surveys the nature and extent of CSR efforts in developing countries, this paper designed a qualitative research to explore whether the dimensions discussed in the literature sufficiently reflect consumer and company perceptions, and to further investigate whether any other dimension had been overlooked so far.

2. LITERATURE REVIEW

Defined as the quality of being true in substance, being original, first hand and prototypical (Molleda, 2010), and staying true to one's self (Morhart et al., 2014); the literature emphasizes that the authenticity represents the reality and being inherent in the object itself (Schallehn et al., 2014) and totally objective. Contrary to these arguments, some researchers define authenticity as something perceived, as a function of the perceived genuineness and positive valuation of an object in the mind of perceivers (Chiu et al., 2012). Thus, these researchers defend that authenticity exists if and only if a person subjectively believes the authenticity of an object (Lewis and Bridger, 2000).

Authenticity construct has also recently gained some attention in the management literature, specifically in the fields of marketing and leadership (Avolio and Gardner 2005; Beverland and Farrelly 2010; Liedtka 2008). In marketing, authenticity refers broadly to "being true to oneself" such that one's actions and behaviors are aligned with one's core values and beliefs (Gardner et al. 2005; Harvey et al. 2006). However, one must be true to oneself within a social context in which others identify and accept these values and beliefs as appropriate (Eagly 2005). At the company level, scholars have examined the tensions that companies face when they strive to be distinct while also fitting into accepted social and cultural traditions (Maurer et al. 2011) and how both distinctiveness and being connected to one's social context are critical to authenticity in organizations (Liedtka 2008).

As Peterson underlines "authenticity is a claim that is made by or for someone, thing, or performance and either accepted or rejected by relevant others" (2005, p. 1086). Similarly, in the context of leadership, Goffee and Jones (2005, p. 86) argue that "authenticity is a quality that others must attribute to you." Stakeholders not only help the company to discover its authentic self, but also validate claims made by the organization about its authenticity, and that is exactly why this paper favor authenticity as perceived and subjective construct.

Defining CSR authenticity as "the perception of a company's CSR actions as a genuine and true expression of the company's beliefs and behavior towards society that extend beyond legal requirements," Alhouti et al. (2016) used to be the first who identified the factors that influence the perceived authenticity of CSR initiatives. Although earlier than Alhouti et al., Godfrey (2005) and

Beckman et al. (2009) discussed various indicators as Table 1 shows. Alhouti et al. (2016) proposed a measure of CSR authenticity and found four distinct drivers which are impact, perceived motives, reparation and the fit. In 2005, Godfrey has suggested stability, transparency and responsiveness as the three indicators of the genuineness of CSR; where in 2009, Beckman et al. emphasized impact of business on all stakeholders, addressing to social needs of the country, being visible in the community, stability, transparency, consistency and to be embedded in the fabric of the firm as factors increasing the authenticity in the eyes of stakeholders. Table 1 depicts the studies focusing on the indicators of perceived authenticity of CSR efforts.

Table 1: Perceived Authenticity Indicators of CSR Efforts in the Literature

Literature	Indicator	Result
Alhouti et al. (2016); Beckman et al (2009); Liedtka (2008); Mazutis and Slawinski (2014); Menon and Kahn (2003); Simmons and Becker-Olsen (2006)	Fit (Image Fit/Functional Fit), alignment, consistency, distinctiveness	CSR authenticity is positively influenced by fit of brand, vision, and mission, and image of the company with the CSR effort.
Chang (2008); Alhouti et al. (2016); Joo et al (2019)	Contribution, impact, broad impact	Consumers show positive reactions to higher donation amounts. CSR authenticity is positively influenced by impact.
Ellen, Webb, and Mohr (2006); Alhouti et al. (2016); Beverland (2006); Spiggle et al (2012), Joo et al (2019)	Perceived motives, benevolence	CSR authenticity is positively influenced by the altruistic motives of the company for CSR efforts.
Beckman et al. (2009); Gofrey (2005), Moulard et al (2016); Joo et al (2019)	Long term orientation	CSR authenticity is positively influenced by the long-term commitment of company to CSR effort.
Beckman et al (2009), Mazutis and Slawinski (2014); Godfrey (2005), Joo et al (2019), Bonsu (2018); Liedtka (2008)	Community link, social connectedness, responsiveness	CSR authenticity is positively influenced by the increased community link of CSR effort, its' connectedness with the society and its responsiveness to the society needs.
Beckman et al (2009); Basu and Palazzo (2008); Godfrey (2005); Wicki and Kaaij (2007); Morsing and Schultz (2006);	Transparency, honesty, truthful	CSR authenticity is positively influenced by transparency.
Alhouti et al. (2016); Basu and Palazzo (2008); Wagner et al (2009); Joo et al. (2019).	Reliability	CSR authenticity is positively influenced by the reliability between what the company says and does.

As authenticity refers to whether a company's CSR efforts are genuine, meaning whether they are tied to the organization's values and whether they are connected to societal norms and expectations; stakeholders are more likely to trust an organization's CSR efforts if they perceive them to be authentic (Wicki and van der Kaaij 2007). Failing to be perceived as authentic and genuine, companies are criticized for not "walking their CSR talk" (Lyon and Montgomery, 2015), and even "greenwashing" (Bowen, 2014) leading to intentional ethical deviance.

Furthermore, it is emphasized that the skepticism and mistrust towards the CSR efforts, can lead to distrust towards the company (Beckman et al., 2009; Goffee and Jones, 2005; Mintzberg, 1983); hurt retailer equity, create negative word of mouth towards the company and can negatively relate to resilience to negative information of the company (Skarmeas and Leonidou, 2013). Thus, the perceived authenticity of the CSR efforts is extremely critical in terms of its consequences and outcomes for the company and for the brand.

As authenticity improves message and source credibility by reducing consumer skepticism and enhancing brand loyalty, and positively influencing trust and company reputation (Bhattacharya and Sen, 2004; Lichtenstein, Drumwright, and Braig, 2004; Madrigal and Boush, 2008; Alhouti et al., 2016; Abbas, Shah, and Gao, 2018), perceived authenticity positively influences the purchase intention, thus leading to positive financial outcomes (Lichtenstein, Drumwright, and Braig, 2004; Alhouti et al., 2016; Mohr and Webb, 2005; Murray and Montanari, 1986). Table 2 below indicates possible outcomes of perceived authenticity towards CSR efforts.

Table 2: Outcomes of Perceived Authenticity towards CSR Efforts in the Literature

Literature	Indicator	Result
Bhattacharya and Sen (2004); Lichtenstein, Drumwright, and Braig (2004); Madrigal and Boush (2008); Alhouti et al. (2016); Abbas, Shah, and Gao (2018);	Loyalty, trust and reputation.	CSR authenticity positively influences brand loyalty. CSR authenticity positively influences trust. CSR authenticity positively influences company reputation.
Alhouti et al. (2016); Godfrey et al (2008); Samuel et al (2018).	Boycott behavior, resilience to negative information	CSR authenticity negatively influences boycott behavior.
Lichtenstein, Drumwright, and Braig (2004); Alhouti et al. (2016); Mohr and Webb (2005), Murray and Montanari (1986)	Purchase intention, positive financial outcomes	CSR authenticity positively influences purchase intent.
Romani, Grappi, and Bagozzi (2013); Joo et al. (2019)	Positive WOM	CSR authenticity positively influences positive WOM.
Romani, Grappi and Bagozzi (2013)	Gratitude towards the organization	CSR authenticity positively influences the feeling of gratitude towards the company.
Joo et al. (2019)	Willingness to support CSR	CSR authenticity positively influences

3. DATA AND METHODOLOGY

After identifying the potential dimensions of perceived authenticity of CSR efforts based on extant literature search, we employed a qualitative research design to understand whether the dimensions underlined in literature sufficiently reflect consumer perceptions, and to further explore whether any other dimension had been under looked. Thus, we specifically focused on the nature of CSR, definition of authentic CSR, what factors companies consider to be perceived as more authentic, how consumers really perceive the CSR efforts of the companies, and how perceived authenticity affects the consumer perception towards the CSR activities. Analysis of the company executives' responses to face-to-face in-depth interview questions and analysis of the consumers' responses in the focus groups yielded important insights related to companies' strategies in implementing CSR efforts, consumers' perceived authenticity of CSR efforts and consumer's willingness to support the cause.

3.1 Research Design

An exploratory research approach is adopted to be able to reach deep and rich information in an area which seems under-researched in terms of the relation of authenticity with CSR activities. The study includes a range of well-established multinationals and local companies who are well-known for their corporate social citizenship efforts in Turkey (GfK, 2018). The corporates who are invited to participate the research are selected from the GfK's "Corporate Social Responsibility Research 2018" based on their recognition in CSR by the stakeholders. In overall, authors contacted with 20 corporates and eight of them accepted to participate the research, with an acceptance rate of 40%. These companies included four multinationals from fast moving consumer goods, insurance, technology and energy, while three national conglomerates operating in industries from manufacturing to energy and construction, and the last participant company was a local consultancy company serving in corporate citizenship strategies.

We used purposive sampling and expected this sampling methodology to afford us maximum opportunities for making comparable analysis (Strauss and Corbin, 1998) of companies from a variety of industries and experiences with stakeholders, as well as integrating multinationals' and locals' point of views in implementing CSR. The snowballing method is used to recruit a heterogeneous group of corporate officials from the departments of corporate communications and corporate citizenship. It is aimed to understand how corporates perceive corporate social responsibilities and what kind of strategies and priorities they are taking into consideration for their CSR projects, and whether they prioritize authenticity in their CSR projects and how they are trying to arouse this perception of being authentic for their stakeholders.

In our initial sampling phase, we mailed explanatory and invitational e-mails about our study to several companies' manager level contacts we have previously have communication with, asking them to accept the interview and distribute the letters to potential

participants if they approved of our interviewing. On receipt of this approval, one-to-one, face-to-face interviews are scheduled with the related respondents, and obtained their informed consent. Overall, the three of the respondents were the heads of corporate communications department, where the remaining five of the participants were either senior specialist or junior manager in corporate communications department responsible of CSR.

This sampling method was quite satisfactory thanks to the nature of the relationships of the company executives who contacted them. Personal contact from familiar colleagues/professionals within corporate and the hierarchy inside the company have influenced the respondents' willingness to participate and support.

In-depth interviews' data were collected via semi structured questionnaires, which Fontana and Frey (1994) described as "one of the most powerful ways in which we try to understand our fellow human beings" (p. 645). Face-to-face interviews occurred in the respondents' offices and ranged in length from 90 to 120 minutes. The interview questions given in Appendix focused on CSR strategies and projects, factors considered while implementing the projects, also managers' understanding of consumers' perceived authenticity for their CSR efforts. Interviews with company executives could not be taped due to the reasons of confidentiality. Therefore, interviews progressed slowly to maintain the researcher take necessary notes. In addition, four of the participants also provided briefly written answers to our questions after the interviews.

Focus groups on the other hand, are taped and the consent of the participants are taken in advance of the study. In total four focus groups (total n=23 with six per group for all but one group with five participants) are conducted. As Table 3 shows, focus group participants ranged in age from 21 to 56; 78% were female; 61% were high school and below graduate. Semi-structured, open-ended questions asked to the focus group participants are listed in Appendix and each focus group ranged in the length from 80 min to 100 minutes

Table 3: Demographic Characteristics of the Focus Group Participants

	Focus Group Participants	Frequency
Gender		
<i>Female</i>	18	78%
<i>Male</i>	5	22%
Age		
<i>18-25</i>	3	13%
<i>26-40</i>	8	35%
<i>41-55</i>	11	48%
<i>55+</i>	1	4%
Education		
<i>Primary School</i>	9	39%
<i>High School</i>	5	22%
<i>University</i>	6	26%
<i>MA/PhD</i>	3	13%
Income		
<i>< 3000TL</i>	12	52%
<i>3001-4500TL</i>	6	26%
<i>>4501TL</i>	5	22%

3.2. Data Analysis and Data Confirmability

The written-up field-notes and transcripts were then analyzed by hand, identifying dominant concepts that were repeatedly mentioned by consumers and company executives. The hand analysis is preferred since we wanted to be close to the data and have a hands-on feel for it without the intrusion of a machine, also considering the inquiry is in local language (Gibbs and Taylor, 2005; Saldana, 2013).

Based on Saldana's "The Coding Manual for Qualitative Researchers", we preferred in vivo and provision coding in the first degree since the former one draws from the participants own language for codes, prioritize and honor the participant's voice (Stringer, 1999; Saldana, 2013) while the latter one "imply actions intertwined with the dynamics of time, such as those things that emerge, change, occur in particular sequences, or become strategically implemented through time" (Hennink, Hutter, and Bailey, 2011, p. 253; Saldaña, 2003). As a second-degree coding, focused coding used since it categorizes coded data in the first degree on thematic or conceptual similarity (Saldana, 2013).

We also engaged in method of respondent validation (Creswell, 2002) to confirm findings. To secure respondent validation, a summary of findings is presented to the four participants representing each focus group, by face to face, asking them if they concurred with any or all the emergent perspectives, that is, if they saw their personal perspectives represented in any or all of the reported findings. Those focus group participants are especially chosen due to their close attention to the topic during the focus group and high participation in comparison to other focus group participants.

4. FINDINGS AND DISCUSSION

Since this paper used in vivo coding prioritizing and honoring the participant's voice, the findings from company executives' interviews and consumer focus groups are firstly categorized by the participant's own wordings¹. The identification of potential dimensions of the CSR authenticity led the authors to generate a 6C model (congruence-commitment-candidness-community link-creativity-consumer engagement) to cluster the findings of the study.

4.1. Congruence

Congruence or fit in the literature is defined as "the degree to which stakeholders perceive an alignment between the organization and its CSR efforts" (Alhouti et al., 2016; Joo et al., 2019; Mazutis and Slawinski, 2014; Yoo and Lee, 2018). Yoo and Lee also (2018) indicates that higher the CSR fit, the more favorable the consumers' evaluation of the company (Speed and Thompson, 2000). Furthermore, Alhouti et al. (2016, p. 1244) emphasize that "fit is a factor in perceptions of authenticity when the CSR act does not align with what the firm sells...because it sells a product that is harmful to the cause it promotes"; showing that the non-fit or non-congruency can be a factor to increase the skepticism and the mistrust towards the company, which can lead to devastating outcomes for the company.

Correspondingly, both the consumers and the company executives perceived congruence as an important factor of authenticity since the image fit, functional fit and mission/vision fit of the company with the CSR effort makes the effort more efficient and sustainable considering the experience and the resources that company history and expertise brings in that specific area, as participants highlighted;

"It is really important for me to have a consistency between the CSR project and the product of the company. For example, [company name] producing chocolates and all packaging good, but they implement a CSR project where they motivate people to have a more active life, doing sports. This creates an oppositeness, which I always make fun of..."

"In general, companies are trying to compensate the points they have missed with their daily operations. For example, this oil company, [company name], wanted to implement a project to save dolphins, but actually they were the ones who are causing the marine pollution."

"I perceive [company name] campaign very authentic, and genuine. Because they came to us for personal hygiene and puberty training, they always gave the same message with their brand. They want to strengthen girls and women."

"I also really loved the last ad of because first %90 of the ad is from actual images, shares his own harassment case. And this spurt is high-toned behavior because it differentiates the brand from its counterparts using women as an object. This is a shaker move of societal taboos, and this is the [brand name]'s role in my perspective, making the best men can be."

4.2. Commitment

Commitment construct in this paper focuses on two main dimensions which are long term orientation and the result orientation of the CSR efforts.

¹ The names of the companies, brands and CSR programs that the focus group participants and in-depth interview participants discussed are not shared in this article due to ethical concerns, and kept confidential regarding the companies, brands and CSR programs image.

Long term orientation of the company towards the CSR effort is defined as the degree to which stakeholders perceive the organization as dedicated, and committed to designated CSR efforts for long years to come as consumers commented;

"Let's say today I am the Santa Clause, and I brought toys to the children. But I brought it only for one year. What is then?"

"Companies should support the same cause for a life-time. Why do we remember [company name and brand name] or [company name and CSR program] project? Because they have implemented the project for more than 10-20 years. We got educated on personal hygiene in high school with [brand name]. We have seen the results of the [company name] project, that girls got schooled became primary school teachers in eastern villages. These are not one-time supported projects, these are investments to the community, society."

"For me it is important to be sustainable, to be trustful, to focus on one problem and to come up with a strong solution is extremely important."

"As it says, give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime. This must be the mindset of implementing a CSR project. You can give people the fish if it is an urgency, but other than that you need to teach them."

As the comments on long-term orientation are read, it is inevitable not to realize that long-term orientation and result-orientation go together, and they are an inseparable whole. Participants highly focus on the result-orientation of the CSR by commenting as;

"I only have one question on my mind. Does the needy really get the donation? Does the needy really benefit from the project?"

"Sometimes you just have doubts and you want to do some donation by your own, to touch the lives by your own, to be sure, to see the results. These are immediate results. But of course, you cannot change lives in a sustainable manner all alone, there are deeper societal issues that companies need to put resource behind."

"For example, again, [company name and CSR program] project. We see the results we know lives have changed. In a sustainable manner."

Furthermore, company executives emphasized that being result-oriented is critical in the sustainability of the CSR to evaluate and to ameliorate the CSR effort.

"Of course, we need to design key performance indicators, trainings, management systems for all of our CSR efforts. We need to control and analyze the results of our CSR efforts, measure its impact and work continuously to develop our results."

4.3. Candidness

Long-term orientation and result-orientation of the CSR effort inspire another construct which candidness is, derived from French *candide*, and Latin *candidus*; meaning honesty and forthrightness. Thus, this construct includes the dimension of transparency referring to the access of stakeholders to information about the company's past, current and planned CSR efforts, and whether the information presented is balanced, rather than biased (Basu and Palazzo 2008). Transparency of the CSR efforts is perceived as an extremely important dimension by consumers, and this is mainly due to the previous unfortunate experiences that the society faced within previous years where some well-known NGOs are found out to be highly corrupted.

That is why, consumers mostly emphasize seeing the results, observing transparency in implementation of the CSR efforts by underlining that;

"We need to see results, before/after visuals, reports anything to share with us."

"Today, even as an individual, I can go and ask for money from each of you. But then you will ask me, what I did with the money I collected, right? It is the same thing with the companies. Who knows what has happened to all that money collected?"

On the company side, during the in-depth interviews, companies shared strong details with the results, performance indicators and budgets of their CSR efforts. Though none of the company executives digged down transparency dimension in deep, they have mentioned their disclosures, CSR reports and awards they got from different platforms and stakeholders. By doing so, they communicate their CSR efforts openly with their stakeholders and acknowledge the importance of this open and honest communication.

4.4. Community Link

Community link in the existing literature defined as the degree to which stakeholders perceive CSR to relate to their communities (Beckman et al., 2009; Joo et al., 2019; Mazutis and Slawinski, 2014). Addressing to local needs, emphasized by the consumers, refers to the degree which companies address the issues and the needs of the local community, the degree of giving back to the people within the community that company is operating in (Beckman et al, 2009; Mazutis and Slawinski, 2014; Joo et al., 2019). Participants therefore used the degree to which CSR efforts met local needs as an indicator of perceived authenticity. Godfrey (2005), also indicated community link as “responsiveness” defined as the willingness of companies to adapt their CSR practices to the changing social and economic requirements of their environment. As participants commented;

“Companies are responsible of implementing CSR projects in the society they are operating in. Because they win from this society.”

“We are the ones working for those companies. We make them profit. Of course, they need to address the issues of this country first.”

“As our religion emphasizes, you should not sleep when your neighbor is hungry. This means that you need to help the people who are closer to you. Additionally, if you come with a project idea supporting abroad when there is need in your country, you can still attract a certain amount of consumer but not the level you can reach with a project addressing local needs.”

Interestingly, some of the focus group participants emphasized that the importance of addressing local needs may be undermined in conditions where humanitarian and urgent aid are in need globally. This awareness proves that consumers usually have a set of priority areas in their minds for CSR, donation, volunteering and support but this set of priorities may get affected by external and uncontrollable incidents such as disasters, war, extreme conditions where survival of the individual becomes the highest priority anywhere in the world as this participant indicated;

“We need to look to the humanitarian emergency. Necessity and urgency may change the focus.”

“If people in someplace of the world is living on the razor’s edge, then there should be no boundaries to support and help them in the first place.”

Furthermore, company executives are also fully aware of the importance of delivering solutions to the local needs and issues whether they are local or multinational companies. While multinational companies are implementing specific projects to address the local needs, they even adapt their internationally known projects to the local dynamics such as [company name]’s and [project name] for girls.

“Our CSR projects proves that our company is transparent, open and in relation with the society it is operating in. The projects we have been leading with this vision targets societal issues and needs. We design our CSR projects according to the needs, issues and shortcomings of our country.”

4.5. Creativity

Innovativeness and creativeness of the CSR effort are two other indicators that are emphasized by the consumers as indicators of the perceived authenticity, which leads to the key contributions of this research, since no other research in the literature (conceptual or empirical) categorized innovativeness or creativeness of the CSR efforts as an indicator of perceived authenticity. Participants reflected ideas about innovativeness and creativeness of the CSR efforts in comments such as;

“First of all, CSR should touch to the conscience. To do so, it must be the first, something that no one ever think of, must bring an innovative solution to the problem. And of course, it should be benevolent. Not to be done for to be done. It must be helpful to the people, in deep.”

“For example, [Company name and CSR program] definitely solves an obvious problem of all, and it is very innovative.”

“We are living in such an era of the world history, which one can reach to everyone easily with creative ideas. But still, there are companies basically setting up stands, making simple donations or asking for it. This means that you are dwelling on this cause, you are not putting energy behind it. Then why should I?”

The views of the participants define innovativeness and creativity as efforts that must be put behind to address the societal needs in a more efficient way to attract the interest of the stakeholders and to show company's real willingness to tackle with the issue. Since there is no innovation without the creative thinking, this study perceives creativity as a broader concept in comparison to innovativeness which also includes innovativeness and considers creativity as one of the dimensions of the perceived authenticity of the CSR efforts.

Contrary to the consumers' emphasis, only one company executive slightly mentioned "innovativeness" while explaining their vision and mission with their CSR projects; "as [company name], we aim to produce and implement innovative, human-oriented, result-oriented, measurable and sustainable solutions to the societal and environmental issues together with the cooperation of universities, NGOs and governmental bodies", rather than giving a strong emphasis as the consumers did. This difference in emphasis of innovation between consumers and company executives shows that company executives underestimate the dimension of the creativity in shaping their CSR efforts.

4.6. Consumer Engagement

So far in the literature, consumer experience is mostly defined as the consumer's involvement with the cause meaning as the personal connection because he/she or friends/family members have been affected by the cause (Joo et al., 2019). As the life of the consumer impacted by the cause some way, or consumer has a personal connection to the program designed to fight a certain cause, it has been found that the emotional engagement with the cause was positively associated with the attitudes toward the CSR program (Joo et al, 2019; Mcshane and Cunningham, 2012).

"I grew up in a public boarding school with lack of facilities. Thus, I know that [company name] supporting on boarding schools because the owner of the company is also a graduate of our school. Now, whenever I need a product that [company name] also presents, I prefer buying that company's products."

This study's focus group results take this definition one step further and widens the definition of consumer experience with consumer's interaction with the CSR effort throughout the initiative and with the results. While this dimension has not been identified in prior literature, numerous focus group participants highlighted this aspect in their evaluations.

"I would like to see an active experience in CSR project which will make it more attractive for me and will bond me to the cause and to the people, animals who are in need."

"Seeing the kids helped, sharing their happiness as the supporters of the cause, this activity is unmeasurable. For example, I once had the chance to get together with the kids supported for an educational CSR initiative of a company. Seeing that the company executives are really taking care of them, and valuing them, and spending their time with them, not just their money..."

Furthermore, company executives also highlighted the importance of consumer experience as in the following quotes;

"If you would like to take the support of the consumer, you have to activate them and make sure that they are included in some part of the project. You must give them roles, responsibility, and make sure that you ask more than just buying your product. You may even need to make sure that the project is personalized for them."

"Putting everything aside, the most important thing today is to establish an emotional bond with the consumer. It is important to establish projects that create value for consumers."

The findings of this qualitative study contribute to both literature and business practice by improving our understanding on the dimensions of perceived authenticity of CSR efforts in Turkey, an area with a lack of focus so far, on whether the companies CSR efforts and consumer's perception of these efforts coincide or not and finally present a guiding framework to business to consider while implementing CSR efforts.

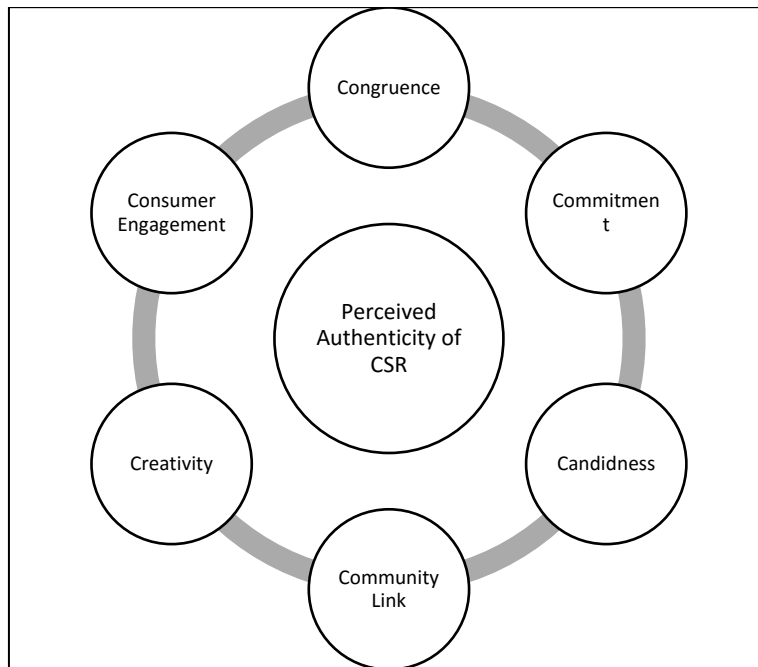
The findings of this study show that in Turkey,

(a) When the attributes of the perceived authenticity of consumers are asked to the company executives, it is found out that transparency, honesty, being human-oriented, and consistency of the CSR efforts are the most focused indicators for companies with a lack of focus on fit, innovativeness and result-orientation.

(b) Consumers, on the other hand, focused on the fit, long-term orientation, result orientation and transparency in answering for the same attributes.

Additionally, this study takes existing literature on perceived authenticity of the CSR one step forward with its findings on the dimensions of the consumers' perceived authenticity; putting in the role of creativity of the CSR effort and consumer engagement in the CSR effort. As a result, this study offers a multi-dimensional model on the consumer's perceived authenticity of the CSR effort by proposing the 6C model below in Figure 1; which is constituted on congruence, commitment, candidness, community link, creativity and consumer engagement.

Figure 1: 6C Model of the Perceived Authenticity of the CSR



5. CONCLUSION AND FUTURE RESEARCH

Our research served to explore the further dimensions of consumer's perceived authenticity of CSR efforts in a developing country like Turkey and to see whether the companies putting these efforts forth fully capture these dynamics or not, and to interpret the factors that companies take into consideration for to be perceived as authentic.

One limitation of this study relates to the recruiting interview and focus group participants through snowball sampling using the network of the researchers. For future research, survey data can be collected with random sampling and from different segments to determine whether the results of the qualitative research can be supported using different samples and data collection methods. In addition, although focus group participants openly shared their thoughts about their willingness to support the CSR effort, the results of the participants could present social desirability bias.

Future research could also study additional dimensions, antecedents and outcomes to those dimensions and include other moderating/mediating variables to further explore such as the perceived corporate character of the multinationals and consumers' individual values. To further contribute to the literature of CSR, multinational companies which implement the exact CSR efforts in different countries and cultures can be examined in terms of perceived authenticity.

Although companies try to build community links to be perceived more authentic (Beckman et al., 2009; Mazutis and Slawinski, 2014), perceived company character of multinationals may have a moderating effect on the perceived authenticity since consumers' perception of company's reputation influences their behavior towards it (Davies et al., 2004). Thus, multinational companies perceived corporate character in every culture may have a direct effect on the perceived authenticity of the CSR efforts. Additionally, personal values also should be taken into consideration in the future studies since values are the beliefs referring to

desirable goals that motivate action and serve as standards or criteria in decision-making or in evaluation of actions, policies, people, and events (Schwartz, 2012).

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APPENDIX

In-depth Interview Questions

As a company, what kind of corporate social responsibility efforts do you have? What are your current CSR projects?

How do you determine your CSR projects? To what attributes and strategies are you focusing on?

How do you prioritize your stakeholders and CSR focus? Do you implement any short-medium-long term strategic plans?

Have you ever measured the effectiveness of the CSR effort you have implemented? Have you ever analyzed how consumers perceives your CSR efforts? If yes, what are the attributes and criteria you are focusing on and why?

From your company perspective, how does consumers in Turkey react to CSR efforts?

From your company perspective, what are the attributes that shape consumers' perception on CSR efforts?

How do you define the perceived authenticity of the CSR efforts? What could be the factors affecting consumers' perceived authenticity of the CSR effort?

How do you think that consumers' perceived authenticity of the CSR effort affects consumers' attitude towards the company and thus company reputation? What could be the advantages of consumers' increased perceived authenticity for the company?

How do you think the attitude toward the CSR effort changes if consumers' perceived authenticity of the CSR effort increases? What kind of volunteering activities can consumers perform?

Focus Group Questions

How do you define corporate social responsibility? What are the first words coming to your mind?

What kind of CSR efforts do you remember?

How do you define the role of companies in social responsibility?

How do you define the reasons why companies are investing in CSR? Do you think that they are authentic in implementing CSR efforts?

To what attributes should companies focus on while they are implementing a CSR effort?

What can be the attributes to define a CSR effort as authentic?

Can you share a CSR effort you think as authentic? (or unauthentic) What are the attributes/characteristics of the effort or the company that made you perceived the effort as authentic (or unauthentic)?

To what extent and how do you support the CSR efforts of the firms? Can you share a CSR effort you supported before and how you supported the effort?

Is there anything else you would like to comment on about company's CSR efforts and authenticity of the CSR efforts?

CAN BRAND IMAGE BE RECOVERED AFTER NEGATIVE PUBLICITY? EFFECTS OF SEVERITY AND CORPORATE SOCIAL RESPONSIBILITY

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ABSTRACT

Purpose- This research examines the effectiveness of CSR's function to minimize and repair the severity of negative publicity towards company's brand image in two periods of time.

Methodology- A convenient student sampling of 225 respondents was used and employed ANOVA and T-test to measure the significance difference of brand image recovery between Time0 (the time when the negative publicity incident occurred) and Time1 (a year after).

Findings- Findings showed that brand image was higher (recovered) in Time 1 than in Time 0 whether factoring in CSR or not. In addition, CSR can still positively redeem brand image from negative publicity in Time 0 compared to Time 1.

Conclusion- Findings supported that CSR can function and serve as a corporate image 'safety net'. The implication of this study recommends that companies should invest in one or more domains of CSR initiatives, such as employee training or social and community involvements in case of negative publicity events.

Keywords: Negative publicity, CSR, severity, time, brand image recovery.

JEL Codes: M30, M31, M37

1. INTRODUCTION

Food safety issues have been a series of major episodes since 2011. Such scandals have widespread effect over the country. News and media have elevated the negative publicity and spread public fears over months. In one hand, consumers have lost faith and trust in particular some well-known and history old brand name companies. On the other hand, unethical businesses have struggled to find a way to handle negative publicity in order to rebuild their reputation (brand image and trust).

The most recent food safety scandals have happened in soft drinks, edible oils, and dried tofu products. Back to 2011, News reported that soft drinks contained industrial plasticizer, an agent that can harm children's health (major consumers consumed soft drinks daily sometimes). Following the revelation, another severe publicity has been the edible oil happened in early 2013 and the episode has been a going concern from the public. News started from Chang Chi Foodstuff Factory that the company has been selling adulterated oil products. Their oil products had mixed olive oil with cheaper cottonseed variety to lower production costs and to make the oil look purer by adding coloring agent, copper chlorophyll in since 2006 (Chung, 2013). The worst thing is that Chang Chi Company was also a manufacturer (OEM) for several leading and oldest food companies in Taiwan. Consequently, the entire food industry has been under the fire of the scandal.

In late 2014, News reported similar scandals happened in the dried tofu products. The products have many flavored types that found to be contaminated with toxic industrial dye methyl yellow which had been used for at least 20 years and few days later the regular tofu products were also adulterated with carcinogens (Hsu, 2014). The origin manufacturer, Chien-Hsin Enterprises located in southern Tainan city, was also the supplier to 44 manufacturers for the dried tofu products (Hsu, 2014). As a result, negative publicity of such food scandals has not only damaged company reputation (brand image and trust) and consumer trust. At the same time, if the food industry wants to survive they have to strive to rebuild its reputation soon.

Due to these chemicals that can severely damage people's liver and cause cirrhosis if excessive consumption of the agents, consumers have lost their faith (trust) and skeptical about brand name companies. According to one report, 80% of Taiwan's consumers are concerned about food safety problem (Wu and Kao, 2013) and they have expressed their outrage. As a result, over 3,000 consumers have taken actions by jointly filed a class-action lawsuit over the adulterated food companies and the Consumer Protection Commission would file the lawsuit on their behalf (Chung, 2013). Many public boycotts have targeted at those irresponsible corporations. Recently, the News has reported that public boycotts have resurged against the big food conglomerates whose president was sentenced for the eatable oil scandal. In future, food safety issues incurred by brand companies are likely to happen and continuous public concerns are believed to get stronger in Taiwan.

Scholars have spoken out loud and pointed out it is time to take a look in business ethics and social responsibility. Scholars have started taking corporate social responsibility (CSR) as a strategic (marketing) approach for sustainability based on doing the right things that not only can provide a unique competitive advantage to firms but also social benefits at large (Elkington, 1994; Porter & Kramer, 2006; Rodriguez et al., 2002; Smallbone, 2004). CSR functions as a key component of a firm's marketing communications by delivering values that meet consumers' expectations resulted in improving corporate performance and reputation, while helping worthy causes at the same time (Bakar and Ameer, 2011; Charter et al., 2002; Nan and Heo, 2007; Sen and Bhattacharya, 2001). A good corporate reputation that is affected by the CSR initiatives will bring brand value and trust to the corporation (Perrini et al., 2010), specifically through consumers' positive attitudes toward the brand and enhanced perceptions of credibility toward the CSR initiatives (Becker-Olsen and Hill, 2006; Lachowetz et al., 2002). Consequently, scholars have suggested that CSR can be an effective communication tool to offer a shelter or restore corporate reputation and image (brand image and trust) after the negative publicity (Benoit, 1997; Klein and Dawar, 2004; Vanhamme and Grobben, 2009). However, literature in this arena (CSR as a way to counter negative publicity) is scarce (Vanhamme and Grobben, 2009) and needs further investigation.

Seemingly, CSR has a tendency and ability to reduce consequences of service failure and negative publicity (Joireman, Smith, Liu, and Arthurs, 2015). Benefits derived from a long-term marketing investment can be damaged severely over night by an incident of negative publicity. In other word, a well-known corporate brand image can be tarnished hastily by negative publicity (Cho, 2005; Henthorne and Henthorne, 1994; Zhu and Chang, 2013).

Literature gaps in CSR and negative publicity signify several issues that are needed for further investigations. First, most previous researches have limited to case studies and few consider the more realistic scenarios (Xie and Peng, 2010). Second, limited research has explored severity of negative publicity on corporate brand and consumer responses (Brady et al., 2008) and duration (how long) of consumer reaction to negative publicity (Henthorne and Henthorne, 1994; de Matos and Veiga, 2005). Third, scholars have recommended that CSR can offset the impact of negative publicity (Vanhamme and Grobben, 2009; Zhu and Chang, 2013) but researches of CSR under what kind of conditions that are likely to mitigate negative publicity are either missing or scarce (Berens, van Riel, and van Rekom, 2007). This research tries to fulfill the literature gaps in the field of negative publicity.

In practice, it is often difficult for companies to provide a product or service with zero defects (i.e. service failures or negative publicity). Scholars have suggested that CSR can be an effective communication tool to offer a shelter or restore corporate reputation (brand image and trust) after the negative publicity (Benoit, 1997; Klein and Dawar, 2004). If companies cannot completely eliminate the product or service failure that incurs negative publicity, then understanding how CSR activities can be of considerable value in improving the effect of negative events is crucial (Schoefer and Ennew 2005). Leveraging this thought, if a product or service failure (in particular due to social irresponsibility) becomes a negative publicity and then how CSR initiatives can or cannot rectify the event and regain brand image will be an intriguing research topic.

This study applies a real scenario to explore how different severity of negative publicity and leveraging CSR to recover brand image in different times (negative publicity incurred, Time 0 and a year after the negative publicity, Time 1). Thus, the purpose of the study is as follow:

1. How different the level of severity of negative publicity impacts differently on corporate brand image in Time 0.

2. How different a corporate history of CSR efforts can mitigate the impact differently on brand image after negative publicity in Time 0.
3. How different interactions between the severity of negative publicity and the history of CSR efforts impact differently on brand image in Time 0.
4. A year after, Time1, the three purposes mentioned above will be re-examined to compare the differences (changes) on brand images between Time 1 and Time 0.

2. LITERATURE REVIEW AND RESEARCH HYPOTHESES

2.1. Negative Publicity

Impression formation literature in social psychology has provided a theoretical foundation to explain how people deal with positive and negative information (Cho, 2005; Fiske, 1980; deMatos and Veiga, 2005). In the stream of public relation literature, researchers in particular have investigated effects of negative publicity on corporate performance (Henard, 2002; Xie and Peng, 2010). Definition for negative publicity from the two research field is somehow similar and refers to potential damaging information regarding a product, service, corporation, or individuals in the form of news in prints and televisions, broadcasting, word of mouth, and other kinds of media (Reidenback et al., 1987; Sherell and Reidenbach, 1986).

Marketing researchers have recently shown interests and investigated the role of negativity effect based on the impression formation theory on consumers' psychological attitude and behavioral reactions toward corporate publicity (Ahluwalia et al., 2000; Cho, 2005; Griffin et al., 1991; Pullig et al., 2006; Vanhamme and Grobben, 2009; Xie and Peng, 2010; Zhu and Chang, 2013). Publicity in particular the negative one is one of the major information decoded by consumers to update their associations with a corporate brand (Xie and Peng, 2010). Further, recent studies have found that the effects of negative publicity on one brand can affect other brands (Dahlen and Lange, 2006), brand attitude (Li, 2015), brand evaluation (Cho, 2005), corporate image (Zhu and Chang, 2013), and consumer attitudes and intentions (Griffin et al., 1991). Scholars also have explored the effects of moderators such as consumer commitment (Ahluwalia et al., 2000), corporate advertising (Cho, 2005), and consumer involvement (de Matos and Veiga, 2005).

Literature gap in negative publicity signifies several issues that needed for further investigation. First, most previous research has limited to case studies and few studies consider the more realistic scenarios (Xie and Peng, 2010). Second, limited research has explored severity of negative publicity on corporate brand and consumer responses (Brady et al., 2008) and duration (how long) of consumer reaction to negative publicity (Henthorne and Henthorne, 1994; de Matos and Veiga, 2005). Last, scholars have recommended that CSR can offset the impact of negative publicity (Vanhamme and Grobben, 2009; Zhu and Chang, 2013).

2.2. The Sustainability of CSR Initiatives

The concept and definition of CSR have as yet no real consensus among scholars. The most prevailing CSR definition was probably Carroll's pyramid model, based on the economic on the bottom and followed by legal responsibilities to ethical and philanthropic responsibilities on the top (Carroll, 1979, 1991, 1996). Recent development has converged the economic, social, and environmental responsibilities to create a strategic approach by creating societal value that also fosters corporate sustainability (Dyllick and Hockerts, 2002; Marrewijk, 2003; Porter and Kramer, 2011). For sustainable marketing, such unmet social needs provide market opportunities for companies to differentiate and reposition themselves to gain competitive advantage and economic success by fulfilling carefully defined unmet societal needs and at the same time benefiting society (Charter et al., 2002).

CSR consists of social actions performed by corporations for the purpose of fulfilling social needs (Angelidis and Ibrahim, 1993). It also involves a corporation's willingness to go beyond its legal obligations to set up its policies and practices that are socially involved for the benefit of the society (Enderle and Tavis, 1998). In addition, Lerner and Fryxell (1988) state that a firm's CSR actions should be in harmony with societal values and expectations, and Marrewijk (2003) further defines CSR by integrating economic, social, and environmental responsibilities in relation to the ultimate goal of corporate sustainability, meeting the present needs without scarifying future generation's needs.

Further, Mohr et al. (2001) separate CSR into two general classifications. The first classification discusses CSR and the various stakeholders of the organization (e.g. owners, customers, employees, and the community). The second category is based on Kotler's (2008) societal marketing concept. These two definitions emphasize that a socially responsible company should have concerns beyond just short-term profitability. The concept of CSR also has been defined to suggest that companies integrate social

and environmental concerns into their business operations and their interactions with their stakeholders on a voluntary basis (Commission of the European Communities, 2001).

Consumer CSR is defined as the commitment of a company to respect consumer rights and interests (Perrini et al., 2010). Consumers, like any stakeholder group, will primarily observe a firm's behavior toward them. When focusing on consumers, socially responsible firms should be capable of developing a distinctive market image to both attract and retain customers. Therefore, if a company can protect consumers' rights or carefully check the origin of products it sells, we could say this company has consumer CSR. Environmental CSR can be defined as the commitment by a company to respect and protect the natural environment (Perrini et al., 2010). A company that is environmentally responsible will try to prevent pollution, reduce environmental damage that their products may cause and in general be sustainable and bring brand value to the company (First and Khatriwal, 2010; Hart, 1995).

There are many ways of implementing CSR initiatives in marketing; nonetheless, the philanthropic type of CSR seems to be the most effective in enhancing corporate reputation through the association of brand/cause (Polonsky and Speed, 2001). As a form of altruistic CSR, the perception of 'giving' might also lower consumers' skepticism toward the firm's intentions, thereby increasing the positive attitude and behavioral intentions toward CSR initiatives (Baghi et al., 2009; Webb and Mohr, 1998) and the brand image (Vanhamme and Grobbsen, 2009). A good corporate reputation that is affected by the CSR initiatives will bring brand value and trust to the corporation (Perrini et al., 2010), specifically through consumers' positive attitudes toward the brand and enhanced perceptions of credibility toward the CSR initiatives (Becker-Olsen and Hill, 2006; Lachowetz et al., 2002).

Consequently, scholars have suggested that CSR can be an effective communication tool to offer a shelter or restore corporate reputation and image (brand image and trust) after the negative publicity (Benoit, 1997; Klein and Dawar, 2004; Vanhamme and Grobbsen, 2009). However, literatures in this arena of CSR as a way to counter negative publicity (Vanhamme and Grobbsen, 2009) and researches of CSR under what kind of conditions that are likely to mitigate negative publicity are scarce (Berens, van Riel, and van Rekom, 2007) and thus need further investigation.

2.3. Brand Image

The concept of brand image has long been discussed since 1950; scholars have proposed various definitions of brand image. In general, brand image has been defined as the perception of consumer's mental picture and memory reflected by the brand (Keller, 1993; Cretu and Brodie, 2007; Kotler and Keller, 2012). Further, Martineau (1958) describes brand image as an integration of functional qualities and psychological attributes. Aaker (1991) elaborates brand image as an idea, feeling, and need of a brand. An understanding of the attributes, symbolic meanings, functional consequences and consumers' association with a product are also included in brand images (Padgett and Allen, 1997). Moreover, a clear brand image can help consumers identify and differentiate products of a firm from its competitors (Dobni and Zinkhan, 1990).

Consumer needs are an important factor influencing brand concept. Functional needs, symbolic needs, and experiential needs are considered the three components of consumer needs that can affect brand image (Park, Jaworski, and MacInnis, 1986). Further, they defined brand images as the three concepts as follow:

1. Functional needs: Needs are defined as a brand image of helping consumers to solve consumption problems including the prevention of unexpected situations and the resolution of conflicts and contradictions.
2. Symbolic needs: Needs are to satisfy consumers' inner demands, such as enhancing self-worth, role definition and self-identification. The symbolic benefit links to individuals and specific groups or self-image to the role of product performance.
3. Experiential needs: The consumers expect that products can provide sensory pleasant needs such as delight, fresh, and excitement on their perceptions.

Corporate brands are intangible assets of firms that are difficult to imitate by others (De Chernatony, 1999). Positive corporate image helps the firm increase their competitiveness (Porter and Claycomb, 1997); however, those benefits from a long-term marketing investment can be damaged severely by an incident of negative publicity in a relative short time (Cho, 2005; Henthorne and Henthorne, 1994; Zhu and Chang, 2013). How to rebuild brand images from negative publicity will be critical to any firm.

2.4. Severity of Negative Publicity and Duration of CSR on Corporate Brand Image

Studies have shown that corporate brand image can be affected by negative publicity (Zhu and Chang, 2013) Also, scholars have suggested that CSR can be an effective shelter or even a communication tool for companies to restore their brand image after negative publicity (Benoit, 1997; Klein and Dawar, 2004). Various studies have pointed out that the length of time invested in CSR influences and mitigates the impact of negative publicity (Vanhamme and Grobbsen, 2009). Thus, this study explores the impact of the severity of negative publicity and lengths of time devoted to CSR activities. Hypotheses are proposed as follows:

H1₀: Consumer perceptions of a company brand image are lower for companies with high severity of negative publicity than for companies with low severity of negative publicity in Time 0.

H2₀: Consumer perceptions of a company brand image are lower for companies with a short history of CSR efforts than for companies with a long history of CSR efforts in Time 0.

H3₀: Consumer perceptions of company brand image are lower for a company with an interaction of a high severity of negative publicity and a short history of CSR efforts than for a company with an interaction of low severity of negative publicity and a long history of CSR efforts in Time 0.

Literature also suggested that duration (how long) of consumer reaction to negative publicity has varying effects on corporate brand images (Henthorne and Henthorne, 1994; de Matos and Veiga, 2005). Consumers' impression of negative publicity is likely to lessen or reduce over time according to impression information theory. Therefore, the hypotheses above will be reexamined a year after (Time 1) in order to compare the corporate brand image between Time 0 and Time 1:

H1₁: Consumer perceptions of a company brand image are lower for companies with high severity of negative publicity than for companies with low severity of negative publicity and the outcome of brand image will be lower in Time 0 than in Time 1.

H2₁: Consumer perceptions of a company brand image are lower for companies with a short history of CSR efforts than for companies with a long history of CSR efforts and the outcome of brand image will be lower in Time 0 than in Time 1.

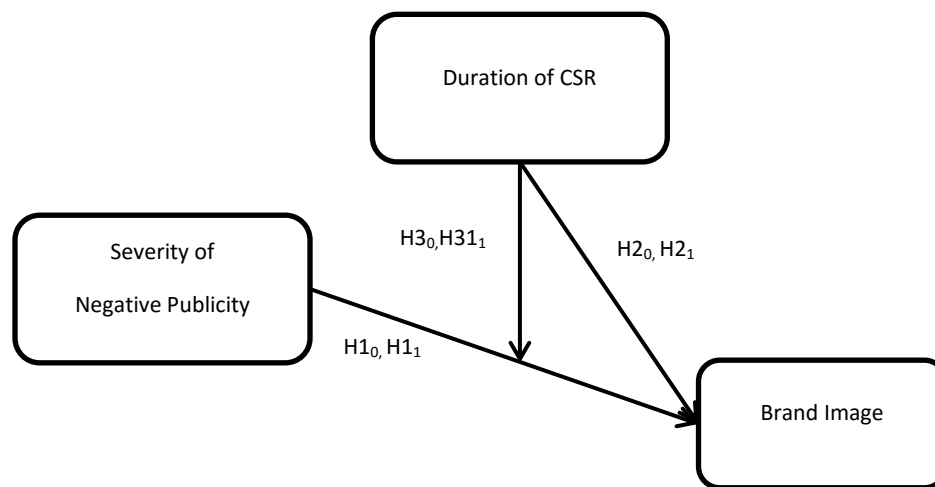
H3₁: Consumer perceptions of a company brand image are lower for company with an interaction of high severity of negative publicity and short history of CSR efforts than for a company with an interaction of low severity of negative publicity and long history of CSR efforts; and, the outcome of brand image will be lower in Time 0 than in Time1.

3. DATA AND METHODOLOGY

3.1. Research Design

This study takes a scenario exploratory (factorial-survey) design approach. Impression formation theory in social psychology provides a foundation to explain how consumers deal with negative market information. According to the theory, this research proposed that differences between severity of negative publicity and/or duration of CSR activities on brand image are framed in two time periods. The following is the research framework graphically.

Figure 1: Research Framework



3.2. Stimulus (Scenario) and Sample

The restaurant chosen in this research was a well-known service provider. Its claim to fame was its assertion that its hotpot contained only natural ingredients. This hotpot restaurant is quite popular among students. A pretest of 40 students was conducted to make sure that the wordings of the survey fit the study.

A stimulus was designed in the survey to collect data. The students were shown the negative news about the restaurant to recreate the feelings of the moment. Online news stories and photos were collected and rearranged in relative sections (severity and CSR) of the questionnaires to simulate real situations.

A convenience sample was used. A total of 238 undergraduates and some graduate students in College of Business of Feng Chia university were invited to take the survey and extra points were offered to these students to both enhance their participations and pay attention to the survey. These respondents would be considered qualified as they knew the negative incident and had experience with the restaurant via a filter question. Further, the same students were again invited a year later in the same way. In the end, the valid responses were 225.

3.3. Measurements and Analysis Approach

Measurements included two statements of severity of the negative publicity and duration of CSR efforts. In Time 0, a negative incident scenario using photos and news stories was introduced to respondents designed to recreate the moment to inducing respondents' feelings about the incidents in the past. Also, a statement was provided to recoup the theme of the negative incident. Duration of the CSR history used timeline to outline the history of the company's CSR actions (related to donations, treatments to employees, charitable giving to minority organizations... etc.) that the company has invested over the years. These two scenario statements applied 1-7 anchor scales to ask respondents' overall perceptions of how they feel the severity of the incident (high or low) and how do they think about the company has a long history in CSR or not (short or long). Then, the median of the anchor scales for both statements was used to determine high and low of the severity of negative publicity and long and short of the duration of CSR activities.

In addition, a multiple item scale was used to measure brand image adopted from Park, et.al (1986) and their three concept factors: functional, symbolic, and experiential. The items of brand image were measured by a five-point Likert-type scale ranging from "strongly disagree" (1) to "strongly agree" (5).

A year later, in Time1, the same questionnaire, including a description of the negative incident and the history of CSR and brand image was given to the same respondents to capture changes in perceptions and feelings toward the brand image a year after.

ANOVA and T-test were conducted to test the predictions set forth in hypotheses H10~H30 in time 0 and H11, H21, and H31 in Time1. In particular, T-test was used to test H11, H21 and H31 to compare multivariate sample means and changes between Time 0 and Time1, to determine if perceptions of brand image have changed over time.

4. FINDINGS AND DISCUSSIONS

4.1. Socio-Demographic and Descriptive Analyses

A total of 225 valid questionnaires was collected. According to the data result, 39.65% were male respondents and 60.44% were female respondents. Most of the respondents were undergraduates about 90.22%, the rest was graduate students. For descriptive analyses, perceptions of brand image for severity of negative publicity and CSR activities of the firm had a mean ranged from 3.38 to 2.95 and standard deviations ranged from 0.58 to 0.67 for both Time 0 and Time 1 (based on 5-points Likert scale). In addition, severity of the negative publicity had a mean of 5.48 and standard deviation of 1.23. As for the firm's history of CSR activities, its mean and standard deviation were 3.55 and 1.22, respectively. Both constructs were based on 1-7 anchor scale.

4.2. Reliability and Validity

Test-retest reliability was used to measure internal reliability and the value exceeded 0.7, indicating internal consistency over time (Time 0 and time 1) for the construct of severity of negative publicity and duration of CSR activities. Cronbach α was used to test reliability for brand image of severity and CSR and these values were between 0.83 and 0.85, showing a great internal consistency for the questionnaire in Time 0 and Time 1. Divergent validity was run for all constructs (Duration of CSR activities, severity of negative publicity and brand image for both severity and CSR). Correlations among these constructs were all lower than 0.56, a value lower than .85, showing these constructs' dissimilarity (Campbell and Fiske, 1959) for Time 0 and Time 1. Further, composite reliability (CR) and average variance extracted (AVE) validity for brand image were conducted and values for CR and AVE were 0.81 and 0.66, exceeding the minimum requirement threshold.

4.3. Hypothesis Testing

Mainly, one-way ANOVA was used to test hypotheses set in Time 0 (the negative incident incurred recently). The result showed that perceptions of brand image (of the hotpot restaurant) for low and high severity of the negative publicity were significant different (p -value at .000) and that the low severity of negative publicity has a higher brand image than high severity (see table 1). H_{10} was supported.

Table 1: Results of Brand Image of Severity of the Negative Publicity in Time 0

Brand Image	Sum of Squares	df	Mean Square	Mean	Standard Deviation	F	p-Value
Low Severity	6.29	1	6.29	3.14	0.55	14.99	.000
High Severity	93.54	223	0.42	2.80	0.72		
Total	99.82	224					

In addition, consumer perceptions of the brand image were significantly different and higher for the company with long history of CSR efforts than with a short history of CSR efforts in Time 0. The result of the p -value was at 0.000 levels, indicating a highly significant difference (Table 2). As a result, H_{20} was supported.

Table 2: Results of Brand Image of Duration of CSR Efforts in Time 0

Brand Image	Sum of Squares	df	Mean Square	Mean	Standard Deviation	F	p-Value
Short Duration of CSR Efforts	5.41	1	5.41	3.17	0.62	15.93	.000
Long Duration of CSR Efforts	75.75	223	0.34	3.48	0.55		
Total	81.16	224					

Further, consumer perceptions of the brand image were significantly different and lower at p -value of 0.000 level when an interaction of high severity of negative publicity and short history of CSR efforts than an interaction of low severity of negative publicity and long history of CSR efforts (Table 3). Thus, H_{30} was accepted.

Table 3: Brand Image with an Interaction between Severity and CSR in Time 0

	Severity	CSR	Mean	$p(T \leq t)$ one-tail
Brand Image	High	Short	2.626	.000
	Low	Long	3.276	

To test hypotheses in Time 1 (a year after the incident), ANOVA was first test to see differences in consumer perceptions of brand image for severity of negative publicity (H_{11}), duration of CSR efforts (H_{21}) and interaction of the two (H_{31}), respectively. Then, a t-test was conducted further to see perception differences of brand images between Time 0 and Time 1. In Table 4, brand image was significantly different (p -value at .001) for severity of negative publicity and lower when high severity of the incident was perceived (Table 4). T-test was followed up to compare brand image differences for high and low severity in Time 0 and Time 1. The findings confirmed H_{11} and the results indicated that perceptions of brand image for severity were significant different between Time 0 and Time 1 and have increased after a year despite the effect of severity levels (low or high) (Table 5).

Table 4: Results of Brand Image of Severity of the Negative Publicity in Time 1

Brand Image	Sum of Squares	df	Mean Square	Mean	Standard Deviation	F	p -Value
Low Severity	3.931	1	3.931	3.39	0.54	10.660	.001
High Severity	82.228	223	0.369	3.13	0.66		
Total	86.159	224					

Table 5: Differences in Brand Image of High and Low Severity in Time 0 and Time 1

	High Severity		Low Severity	
	Brand Image Time 0	Brand Image Time 1	Brand Image Time 0	Brand Image Time 1
Mean	2.80	3.13	3.14	3.39
Variance	0.51	0.43	0.30	0.29
Observations	125	125	100	100
df	248		198	
T Stat	3.76		3.32	
$P(T \leq t)$ one-tail	0.0001		0.0005	

For H_{21} , perceptions of brand image for the duration of CSR efforts showed a significant difference at $p < .002$ and brand image with a long duration of CSR efforts had a higher mean than short duration of CSR efforts (Table 6). Further, perceptions of brand image for the short duration of CSR efforts showed a significant difference (p -value at .019) for Time 0 and Time 1. However, perceptions of brand image for the long duration of CSR efforts had an insignificant difference (p -value at .073) for Time 0 and time 1 (Table 7). Overall, hypothesis H_{21} was only partially supported.

Table 6: Results of Brand Image of Duration of CSR Efforts in Time 1

Brand Image	Sum of Squares	df	Mean Square	Mean	Standard Deviation	F	p -Value
Short Duration of CSR	3.33	1	3.33	3.36	0.60	10.216	.002
Long Duration of CSR	72.62	223	0.33	3.60	0.55		
Total	75.95	224					

Table 7: Differences in Brand Image of Short and Long CSR in Time 0 and Time 1

	Short CSR		Long CSR	
	Brand Image Time 0	Brand Image Time 1	Brand Image Time 0	Brand Image Time 1
Mean	3.18	3.35	3.49	3.59
Variance	0.39	0.36	0.30	0.29
Observations	106	106	119	119
df	208		234	
T-Stat	-2.08		-1.46	
P(T<=t) one-tail	0.019		0.073	

ANOVA and *T*-test were conducted to test H₃₁ to see whether perceptions of brand image with an interaction of high severity of negative publicity and short history of CSR efforts or an interaction of low severity of negative publicity and long history of CSR efforts were significantly different in Time 0 and Time 1. The results in Table 8 indicated that perceptions of brand image in both interactions of high severity with short duration of CSR efforts and low severity and long duration of CSR efforts were significant different at t-value of .002 and .02, respectively. As a result, H₃₁ was supported.

Table 8: Differences in Brand Image with Interactions of High Severity and Short CSR and Low Severity and Long CSR in Time 0 and Time 1

	High Severity & Short CSR		Low Severity & Long CSR	
	Brand Image Time 0	Brand Image Time 1	Brand Image Time 0	Brand Image Time 1
Mean	2.63	3.03	3.28	3.51
Variance	0.60	0.47	0.34	0.34
Observations	61	61	55	55
df	118		108	
T Stat	3.02		-2.088	
P(T<=t) one-tail	0.002		0.02	

5. CONCLUSION

5.1. Academic Contributions

In the field of negative publicity, little was known and rarely has investigated on how severity of negative publicity, duration of CSR efforts and their interactions impacted differently on consumer perceptions of brand image. In addition, a real scenario and cross times study have been scarce in the field. This research contributes to fill these gaps based on *Impression Information theory*. Results supported that severity of negative publicity made differences on consumer perceptions of corporate brand image in both Time 1 and Time 0 but duration of CSR efforts only made differences on corporate brand image only in Time 0. The interactions of low severity of negative publicity and long CSR efforts and high severity of negative publicity and short CSR efforts were both significantly different in Time 0 and Time 1. These findings enrich the knowledge of negative publicity.

In addition, the research answers an interesting question: Can a company leverage its past efforts in CSR to rectify its negative publicity resulted from irresponsible behaviors? Findings suggest that when the negative publicity incurred, corporate brand image dropped dramatically first and then was enhanced if consumers knew about the company's history of CSR efforts (in Time 0); however, consumers' impression on the negative incident has withered away so CSR made no significant difference on consumers' perception of corporate brand image a year after (in Time 1). This finding implies that as time goes by CSR has no halo effect to rectify corporate brand image in negative publicity. Consequently, these results lighten up a future direction of how CSR activities or communication can lessen the impact of negative publicity on firms.

5.2. Practical Implications

Findings supported that CSR can function or serve as a corporate brand image "safety net". Hence, CSR efforts can assist not only brand managers but also marketing strategy to restore brand image after negative publicity in service industry (in particular,

restaurants). In addition, the results are especially salient for companies currently suffering from negative incidents, and provide an extra reason for companies who will or want to invest or to continue their investment in CSR as a competitive advantage.

In the short run when negative publicity just occurred, brand managers or marketing strategy in dealing with negative publicity should first communicate their CSR efforts right away in a way of showing their sincerity in trying to make things right and at the same time benefiting society at large. In particular, philanthropic donations to minority groups in need can increase positive brand image perception in a way that is easily seen by the public and therefore can promote longer lasting good impressions. In this way, consumer perceptions of corporate brand image will be regaining partially in spite of how severe was the negative publicity in a relative short time. Thus, engaging CSR actions can cultivate unique competitive advantages while offering the public substantial tangible and intangible social benefits.

However, CSR efforts may not manifest their halo effect in the long run. Findings also suggested that duration of CSR efforts made no significant differences in consumer perceptions of corporate brand image across times. Meaning that time itself might be a cure for restoring brand image. The implication for brand and strategic managers seem no need to do anything as consumers are very forgettable as the Impression Information theory makes sense that the impression of the negative incident is likely to fade away and might not be in consumer's memory after a year. This doesn't mean that brand and strategic managers have no need to rectify the negative incident; instead, this emphasizes the urgency of taking a swift action to deal with negative publicity in particular using CSR communications to rescue corporate brand image immediately. Continuing investments in CSR activities are needed because they can come to rescue in bad time. Overall, long-term efforts in CSR activities can enhance brand image no matter in good or bad time.

5.3. Limitations and Future Research

The research context was a restaurant which had a very specific negative publicity. In addition, convenient student sample was utilized even they were consumers to the restaurant. These could limit the generalizability of this study. Future studies should use random and different samples. Different contexts of negative publicity also need further investigations to support the findings in this study. In addition, other factors, not only concerning duration of CSR actions but the content of different types of CSR efforts may have more important implications than just time duration. Last but not the least, a study integrating two fields of negative publicity and CSR efforts into different industries and different products and services should be more comprehensible and may deliver new research models and be interesting to discover.

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