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The impact of message appeals through Facebook posts on customers willingness to pay premium: Do environmental concerns and generation matter?

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### ABSTRACT

The purpose of this study is to classify the nexus between message appeal (sensual vs. guilt message) via Facebook posts and customers' willingness to pay a premium price. Moreover, to recognize the environmental concerns as a mediator in the nexus between the message appeal and customers' willingness to pay a premium price. This research gained the needed data collected from the academic and administrative staff of the middle east university in Jordan, the sample consisted of 284 participants who have experience with the restaurant that supports the sustainability initiatives. An experimental research design has been developed with one study. A fictitious restaurant has been used in this study, and a fictitious Facebook page has been created to build the sensual and guilt messages posts to expose the participants to. SPSS ver. 23 software has been utilized regarding the study and to gain the intended goals. The results revealed that the customers have a greater willingness to pay a premium and levels of environmental concerns adoption when they are exposed to the stimuli that express the sensual massage then guilt message, environmental concerns played a mediator role on the relationship, and generation is a moderator.

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### 1. Introduction

These days, the world is breathing the air of the social networking sites (e.g., Facebook, Twitter); and the customers are racing to engage in the growth of any brand and formulating their presence through their attitudes or behaviors regarding that brand (Sawaftah et al., 2021) hence, it is not imaginable the ignorance of the giant marketing controls within the business sphere, where firms can attain massive profitable results (Ibrahim & Aljarah, 2021). Social networks are described in sociology as infrastructures that allow individuals to meet or communicate (Erragcha & Romdhane, 1970). Forsé (2008, p. 10) defines social networks as "a set of relationships between a set of actors, this set may be organized or not, and these relationships can be very diverse in nature, specialized or not, symmetrical or not". With the advent of user-generated content, Web 2.0 has recently enabled greater user interaction. One notable example is the rise of online social networks, which are defined as "any consumer-initiated communication with other consumers who share an interest and use the World Wide Web as a platform for creating a community" (Quinton & Harridge-March, 2010). For example, in 2011, Facebook surpassed the United States to become the world's third-biggest "country" in terms of population, with 650 million users, trailing only China and India (Soares et al., 2012). So, the rules of communication are changing, and concerns like trustworthiness, privacy, trust, and advertising avoidance are likely to impact how site visitors perceive the advertisements they see (Kelly et al., 2010). According to Baron (2008), social media advertising can establish a degree of trust and confidence, additionally, social networks are websites that enable users to interact, share information about shared interests, debate preferred subjects, evaluate and rate products/services, and so on.

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Like any other plan, a sustainability communication strategy must begin with a data-driven knowledge of an audience and stakeholders, we must map out the reasons and provide memorable messages. The correct combination of communication channels can therefore speed up the delivery and forwarding of these communications. One of the developed matrices of sustainability communication is McGuire's communication–persuasion matrix (1989). The process of convincing customers through communication campaigns is described in the communication-persuasion matrix; this matrix comprises aspects that impact the efficacy of a communication effort, such as communication input and persuasion output. The independent variables and persuasive message possibilities that can be changed are the input communication factors (McGuire, 1989). Input communication components include the message, source, channel, receiver, and destination. To create a convincing message, the message incorporates the source's appeal, organization, structure, and style characteristics (McGuire, 2000). The communicator's characteristics are referred to as the source. Credibility, attractiveness, power, unanimity, and relationship with the sponsor are all factors that can boost the message's efficacy (Lou & Yuan, 2019). The channel of communication platform via which persuasive messages are transmitted is referred to as the channel. The receiver represents the demographic, personality, and lifestyle traits of the intended audience (McGuire, 2000). Ultimately, the campaign's targeted behaviors or attitudes are reflected in the goal. The output persuasion aspects are influenced by the input communication factors jointly. Being exposed to the communication, planning to attend to the communication, appreciating the communication, grasping the communication content, producing related cognitions, acquiring knowledge how to use the communication, consenting with the communicator's position, recording this new position, extracting it when needed, making a decision to act on the new position, responding on it, and evoking it is some of these components (McGuire, 1989). However, Kapoor, Balaji, Jiang, and Jebarajakirthy (2021) expanded McGuire's communication-persuasion matrix theory. They adjusted two input communication components, namely the message (sensual appeal versus guilt appeal) to assess the traveler's view of the hotel's environmental corporate social responsibility and their intention to remain there. In this study, the two modified input communication factors, specifically the message (sensual appeal vs guilt appeal), on the social media platform (channel), are considered to investigate customers' willingness to pay a premium for digital sustainability initiatives. The appeal is the linking element that binds consumers to the content and is the center of the marketing creative approach (Dix & Marchegiani, 2013), whereas message appeal is the overall style of sustainability communication (Wang & Lehto, 2020). So, the message appeal type has an impact on the success of sustainability communication (Cozzio et al., 2020) In this context, emotional and rational appeals are the most commonly employed message appeal types. Hedonic sensations such as shame, terror, adventure, romance, and sex are emphasized in the emotional appeal. The rational appeal, on the other hand, emphasizes functional benefits such as convenience, comfort, simplicity of use, reliability, and quality (Turley & Kelley, 1997). Further, there are two trends in emotional appeal for sustainability communication: negative emotional appeal (e.g., guilt, shame, and fear) and positive emotional appeal (e.g., sensual, humor, and social). These two types are the focus of this study. The sensual message is the satisfaction of the senses is at the heart of the sensual appeal. Visual and textual tales focusing on the interplay of spectacular settings (e.g., clean beaches, attractive hotels, and landscapes) and youthful bodies, with the implied sense of pleasure, happiness, and romance, are used to create a sensual appeal (Pritchard & Morgan, 2000). "Sensual appeal messages are fascinating, amusing, and attentiongetting" (Shen et al., 2020). Whereas guilt message, Guilt is an unpleasant feeling condition that occurs when a person realizes that he or she has broken moral or societal rules. Guilt is defined as regret, remorse, and self-blame for a specific deed or failure (Chang, 2012). Individuals feel guilty when they believe their actions have violated a personal or communal moral standard (Tracy & Robins, 2007). The individual is plagued by negative emotional appeals such as guilt, which leads him or her to seek retaliation. Guilt appeals, according to Peloza, White, and Shang (2013), are "direct attempts to heighten consumer guilt" (p. 107). Also, a guilt appeal elicits feelings of shame in the recipient and drives them to lessen that guilt by providing possibilities for action in the campaign (Boudewyns et al., 2013). Thus, businesses regularly employ guilt arguments to elicit pro-environmental consumer behavior (Banerjee et al., 1995). This might be due to consumer guilt for social duty, which is one of the most common types of consumer guilt. Individuals tend to feel guilty when they fail to satisfy their apparent social commitments, such as adopting a greener lifestyle. Marketers today demonstrate that such retribution may be obtained by purchasing and using sustainable products, that's why they have exploited the guilt appeal to elicit regret from customers.

Consequently, guilt and sensual appeal are extremely successful in attracting attention and are frequently used to market sustainability and ecologically responsible products and services (Chang, 2012). Customers objectively process the message context, so firms now have strong, real-life digital platforms to determine which appeal is associated with the main benefits. People are extremely driven to study the content of the marketing at the cognitive appeal, and they tend to assess certain characteristics of the marketing such as product or service-related facts, benefits, and attributes (Dolan et al., 2019). As a consequence, Chen et al. (2020) argued that understanding how to employ various marketing message types on social media is critical for organizations to get better outcomes from their initiatives.

Willingness-to-pay (WTP) stands for the highest monetary value that customers are willing to pay for a single product or a group of goods or services (Cameron & James, 1987; Namkung & Jang, 2017). It represents customer intentions and their conscious susceptibility (Balaji et al., 2019) towards paying a certain amount in the future, indicating beneficial future actions towards the service or product (Namkung & Jang, 2017). There is a significant relationship between perceived quality and premium price, with implications for actions (Netemeyer et al., 2004), choice, and purchasing intention (Washburn & Plank, 2002). Several scholars, including Netemeyer et al., (2004), Bondesson (2012), and Adhikari (2015) viewed the premium price as a brand strength measure. Price premiums as the most useful measure of brand value in theory (Sethuraman, 2001),

also a price premium is equally stable over time, but captures variations in the brand's strength, and is a leading measure of market shares (Agarwal & Rao, 1996; Ailawadi & Keller, 2004).

Customers may communicate their concerns directly by buying differentiated goods that guarantee a minimum level of social and/or environmental sustainability. WTP premiums for such items often accompany this action (Gil et al., 2000; Govindasamy et al., 2006; Loureiro & Lotade, 2005a). A price premium is the amount of money someone is willing to spend in exchange for a better quality of life. The research community has paid close attention to the analysis of customers' WTP premiums because it is critical to understand how perceptions about differentiated goods translate into monetary values (Aguilar & Vlosky, 2007). Contingent valuation (Gil et al., 2000), hedonic (Roe et al., 2001), and conjoint studies have all been used to investigate how product attributes and customer characteristics influence various levels of WTP (Lin et al., 1996; Loureiro & Lotade, 2005).

Correspondingly, there are attempts to identify the factors that influence consumers' willingness to pay a higher price for goods with green credentials. People's willingness to pay the green price premium influences their adoption of environmentally friendly activities, including green product consumption, because environmentally sustainable, environmentally compliant, or green goods have a long list of possible environmental advantages because they are made of environmentally friendly materials, have resource-conservation potential, are recyclable, and have the least environmental effect during their lifecycle (Biswas & Roy, 2015; Liu et al., 2012).

Other attempts took place to distinguish sustainable consumer initiatives from non-sustainable consumers by their sociodemographical properties such as age, ethnicity, schooling, size, and income of households (Thompson, 1998; Thompson & Kidwell, 1998). Increased revenue is higher for the market (Chinnici et al., 2002; Hawkins et al., 2003; Kiesel & Villas-Boas, 2007). By differentiating their goods, producers and companies are still interested in "adding value" to their products. Based on manufacturing costs and customer needs of the new product or service, business owners are involved in both. Loureiro and McCluskey (2003) say that "the use of these marks encourages companies to signal consistency or the availability of such attractive qualities, thus creating a premium potential dependent on this signal." Caswell and Mojduszka (1996) find that consumers favor environmentally friendly goods, and for these products, many consumers are prepared to pay a price premium. By contrasting market expectations for ethics and environmental labeling schemes, Loureiro and Lotade (2005) expanded previous research. They also found that customers are able, in comparison to the original fair price, to pay a higher premium on fair trade goods. Another analysis conducted by by Loureiro et al (2002), however, based their thesis on the market expectations for eco-labialized apples. A brand should charge a premium price to facilitate the purchase process and to reduce competition risk as per Dewar (2004). Simply, a long-term relationship with an organization is less cost-sensitive for clients (Thomson et al., 2005).

From the above discussion, the researcher has drawn this study by joining the message appeals (Sensual vs. Guilt message) as an independent variable, whereas willingness to pay the premium is the dependent variable, environmental concerns as a mediator between message appeals and willingness to pay a premium, and generation played the moderation role on the relationships between message appeals and willingness to pay a premium; and the relationship between message appeals and environmental concerns, and on the mediation effect of environmental concerns. This study aims to investigate the efficiency of message appeals that are abstracted by sensual messages and guilt messages on willingness to pay on the services provided by the green restaurants, and which one of these message appeals has a greater impact on the customers willingness to pay premium prices.

### 2. Theoretical Background

#### 2.1 Message Appeal and Willingness to Pay Premiums

Andreu, Mattila, and Aldás (2011) found that marketing communications have an essential role in boosting the awareness of those consumers who are interested in purchasing items from businesses that have corporate social responsibility features. By using message appeal to communicate sustainability objectives, service firms hope to not only raise customer awareness of social and environmental initiatives but also to elicit emotional responses toward their service brands, which may influence their purchasing decisions. Companies that engage in message appeal not only produce good consumer attitudes, but also establish a corporate image, strengthen consumer-company ties, and increase consumer advocacy behaviors in the long run (ibid., 2011). Marketers have sought to study the link between customers' attitudes about sustainability messaging and how these messages impact purchase intention to enhance the efficacy of sustainability message appeals (Tih et al., 2016). Therefore, many sorts of sustainability message appeals were deployed.

Although market research shows that customers are increasingly eager to buy sustainable products, there is a persistent perception that consumers do not always follow through on their intentions to convert to sustainable items (Janssen & Vanhamme, 2015; Kalafatis et al., 1999). Considering this, there's no surprise that marketers aim to persuade customers to buy sustainable

products by appealing to different consumer motives through their communications. So, guilt and sensual appeals have become a potent weapon for businesses, as they may affect customer attention, product attitudes, and purchasing intentions ((Basil et al., 2006; Chang, 2011; Dawar, 2004)

H<sub>1</sub>: Message appeals (sensual vs. guilt) differ in their effect on willingness to pay a premium.

H<sub>2</sub>: Message appeals (sensual vs. guilt) differ in their effect on environmental concerns.

#### 2.2 Environmental Concern as a mediator

The rate of environmental devastation is now growing over the world, exacerbating the current degree of global warming. The Earth's global temperature has risen, potentially triggering several negative chain reactions that could jeopardize humanity's survival, such as the expansion of the desert because of uncontrolled deforestation, melting polar ice caps, sea-level rise, extinction of animal and plant species, disruption of agriculture activities and profitability, and increased distribution and possibilities for natural disasters. Environmental Concern (EC) is defined in a variety of ways, depending on one's point of view as well as the complex and unstable aspects of the environment (Chan & Lau, 2004). Crosby et al. (1981), for example, characterized it as an acute protective attitude toward the environment at first, and then as a general attitude that has an indirect influence on attitudes through behavioral intentions afterward. One of the most comprehensive EC definitions was provided by Chan and Lau (2004) and Dunlap and Jones (2002), environmental consciousness is defined as a person's unwavering knowledge of environmental challenges and their attempts to either solve or fulfill their willingness to contribute to the endeavor. Environmental concern among consumers is the precursor to some very particular variables such as environmental knowledge, opinions, and willingness to pay (Lin & Syrgabayeva, 2016).

Environmental concern has three main values orientations, according to Stern, Dietz, and Kalof (1993), and each orientation can freely impact the aims to politically act in the protection of the environment. In general, one's self-centered environmental concern for the environment includes oneself, plants and animals, as well as other humans, furthermore, environmental concerns are divided into three categories: Environmental concern, environmental knowledge, and ecologically desirable behavioral intentions are all attitudinal components of environmental concern (Grunert, 1993). Because everyone seems to be worried about the environment, customers become more conscious of it, and they begin to seek ecologically friendly alternatives to their usual purchases (Seacat & Boileau, 2018). As a result, environmental concerns have become a popular and fascinating topic throughout the world (Rahbar & Wahid, 2011). This results in a favorable shift in consumer behavior toward sustainable goods, and this is one of the most significant increases in environmental concerns in the last 40 years (Nguyen et al., 2019). This viewpoint also resulted in the emergence of a long-term awareness to avert further environmental damage (Suki, 2016). Environmentalism has referred to consumers' concern for environmental sustainability throughout the last 20 years (Varotto & Spagnolli, 2017). As customers grow more conscious of the devastation of nature and the link between their consumption patterns and environmental issues, they seek out sustainable items to purchase (Kilbourne et al., 2009). Environmental concern has a major impact on perceived behavioral control and attitude (Paul et al., 2016).

An individual's effort to reduce disruptive acts that may be harmful to the natural and physical environment is referred to as environmentally sensitive behavior. It may be accomplished by conserving resources and energy, employing non-toxic products, and minimizing waste generation (Kollmuss & Agyeman, 2002). Consumers who conduct brand research, use biodegradable bags, biodegradable soaps, and natural detergents; buy things with biodegradable packaging, and refuse to use Styrofoam packets from restaurants are examples of environmentally conscious behavior (Minton & Rose, 1997). However, as concluded in Mortimer's study (2020), Consumer's worry for the environment does not always convert into the purchasing of ecologically friendly items. A commercial study provides that 46% of customers are more likely to buy an environmentally friendly product. On the other hand, over 60% are hesitant to spend a higher price for an environmentally friendly product. While several research in the fields of environmental psychology and consumer marketing has focused on the impact of customers' environmental awareness on their purchasing decisions, particularly for "sustainable" items (Sheth & Parvatiyar, 1995; Shrum et al., 1995). The degree to which people are worried about current environmental issues may impact their purchasing decisions for items with environmentally friendly features (e.g., plants grown using plantable, recyclable, or compostable containers). According to a study by Khachatryan et al. (2013), some people are prepared to pay a premium for certain horticultural product qualities that address environmental concerns, but the findings imply that not all eco-motivations create the same WTP. They discovered that those with a high EC score would be prepared to pay a higher price for plants in ecologically safe potting pots, as well as demand bigger price discounts for imported plants, but would be willing to pay a higher price for locally grown plants. In another study, Schlegelmilch, Bohlen, and Diamantopoulos (1996) found that environmental consciousness explains more than 20% of the difference in purchase measures in another research. Their findings show that customers' environmental concerns can impact their purchase decisions, albeit other mediating variables are likely to alter the link (e.g., attitude toward green energy). Tan (2011) argued that if a person is worried about the environment, they would have a favorable attitude toward green purchasing. According to Pagiaslis and Krontalis (2014), the more environmentally conscious customers are, the more positive their attitudes toward green products are. These customers are more likely to be environmentally conscious and to be willing to pay more for green items (ibid., 2014).

Loosely speaking, environmental concerns may be more important in developing countries than in industrialized countries. Environmental awareness and belief in one's obligation to safeguard the environment are often lacking in underdeveloped countries (Chan, 2001). Several individuals and non-governmental groups only understand the scope of the problem after environmental circumstances have deteriorated; as a result, they turn to the government to adopt different anti-pollution legislation and impose stringent legal penalties for environmental violations (ibid., 2001). Comprehensive environmental laws and policies, on the other hand, require citizens to support and demonstrate environmental behaviors. Dunlap et al. (1993) demonstrated that inhabitants of developing countries were just as worried as citizens of developed ones.

Many social scientists have turned their attention to environmental issues as a result of rising environmental challenges. However, there is still much controversy about how the phrase "environmental concern" has been defined and operationalized, as well as its drivers. As a result, Brechin and Kempton (1994) argue that environmental concern should be viewed as a global phenomenon that emerges from a variety of sources, including direct exposure to environmental degradation, a community's political and institutional framework, and the effects of mass media, rather than being determined solely by economic development. Eventually, environmental concern has been linked to characteristics like age, gender, income, education, urbanity, and political ideology, despite the controversy about its nature and definition (Stern et al., 1993). From the above discussion, the following hypotheses are suggested:

H<sub>3</sub>: Environmental concern mediates the relationship between Message appeals (sensual vs. guilt) and willingness to pay a premium.

#### 2.3 Generation as a Moderator

Individuals are divided into generations and grouped based on their ages, according to the generation cohort theory (GCT). People in these groups are said to have similar ideas, attitudes, and actions (Djafarova & Bowes, 2021). Thus, while analyzing sustainability message appeals, the three generations are predicted to react differently. The generational cohorts are most often reported to be those who express their lifetime contributions historically and socially (Kupperschmidt, 2000; Weston, 2006; Wey Smola & Sutton, 2002a). These interactions are similar for a single age, which implies they have the same experiences throughout their lifetime (Kindrick Patterson, 2007). Any individual has perceptions of his/her life and way of life but various people seem to grow the generation in a common personality. Related kinds of emotions, expectations, and desires interact in a particular generation. (Wey Smola & Sutton, 2002b). As per social science, multiple generations are portrayed in society. It includes the Quiet (1935-1945), Baby Boomer (1946-1964), Generation X or Gen X (1965-1981), and Generation Y, also known as the Millennial generation (1981-2000) (Meredith & Schewe, 1994; Strauss et al., 1991). Among the most educated people, relative to past generations and one of the biggest generations, belongs to Generation X. While the millennial generation is only 22 to 36 years old, relative to their predecessor groups, it is considered the largest generation. This age is the biggest working generation (DeVaney, 2015). Yadav et al., (2019) in an examination of the moderation effect of generations showed that no major variation between Gen X and Gen Y is seen in the findings of the analysis. Further studies may be undertaken to assess user liking and tastes and figure out correlations and variations on sites with diverse cultural backgrounds. These observations should be introduced into the legislation formulation as a dealer for clothing to make sales a true treat for customers. The difference from other older generations of Generation Z is that Z focuses more on the expertise in purchasing. They not only have to convey their identities by personalizing their brands. With the technology of today and with this technological know-how, Generation Z makes users who can order something quickly from an app naturally effective. This allows them to order foods supplied to their homes or use the Internet to find exclusive items. (Francis & Hoefel, 2018). According to Newlands (2011), 78 percent of customers trust peer reviews. This is slightly more than the 14% who believe in advertising in general.

Then, marketing experts have been paying more attention to how generations interact with social networking sites in recent years (Heinze, 2010). To understand how each generation interacts with brand pages on social media and what drives them to acquire the service, it's vital to focus on generational cohorts' segmentation. It's also crucial to use generational cohorts to better understand the characteristics of each segment's customers. This study uses Khosrow-Pour's categorization of generational cohorts (2018) as a moderating function in the Encyclopedia of Information Science and Technology. Gen X (also known as Millennials) refers to people born between 1965 and 1980, while Gen Y (also known as Millenials) refers to people born between 1981 and 1997. Because there is little research on Gen Z and because of the authors' classification, it is presumed that people born in 1998 and later are included in this study. From the previous exploring, the following hypotheses are suggested:

H4: Generation moderates the relationship between Message appeals (sensual vs. guilt) and willingness to pay a premium.

Hs: Generation moderates the relationship between Message appeals (sensual vs. guilt) and Environmental concern.

### 3. Conceptual Framework

The researcher adopted the following model based on the previous literature

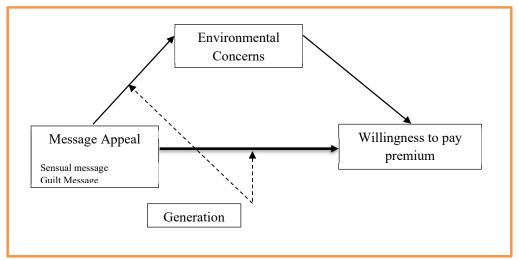


Fig. 1. Research Framework

#### 4. Research Methods

The current research has been utilized the experimental design in a way to examine the relationship of the independent variable message appeal (Sensual massage vs. Guilt message) on the dependent variable (willingness to pay a premium) in the hospitality sector and which one will affect the willingness to pay a premium more, taking into consideration the effect of environmental concerns as a mediator on the relationship (Message appeal and Willingness to pay a premium), in addition to the generation as a moderator on the relationships as follows: The main relationship between message appeal (Sensual vs. Guilt) and willingness to pay a premium, the previous relationship with the existence of the mediation effect of the environmental concerns where we will investigate the moderation mediation effect, the relationship between message appeal (Sensual vs. Guilt) and environmental concerns, and the relationship between the environmental concerns and the willingness to pay a premium.

This research implements the experimental design based on a scenario in one study. A fictitious scenario as a stimulus has been developed; which is two different scenarios (Sensual massage vs. Guilt message), each scenario will represent a message appeal. The scenarios were formed in a design to look real. One pretest that directed for the manipulation check, followed by one main study has been encompassed in the experiment. It hired a fictitious restaurant named Healthy meals. On a fictitious Facebook page that related to a fictitious restaurant called Healthy meals restaurant to certify the stimuli reality. The logo of the restaurant has been created on a specific application, the researcher created two posts, one represented the sensual massage as presented in Fig. 2 and the second one represented the guilt message as presented in Fig. 3, a screenshot has been taken and inserted to the questionnaire.



Fig. 2. Sensual message stimuli



Fig. 3. Guilt message stimuli

#### 4.1 Sampling Method

To confirm that the participants catch the stimuli of the message appeal (Sensual vs. Guilt) as manipulated in the main study, a pretest was directed at the head of the main experiment. With a total of 60 participants from the academic and the administrative staff of Middle East University – Jordan have participated in the pretest; 55 participants have been completed the survey, while 5 participants either didn't complete the questionnaire or they answered No for the screening question which was as follows: (Have you ever been to a restaurant outside the crowded cities?), if the participant's answer was yes, then they can continue filling the survey; but if they answered by no, they have to stop filling the survey.

The sample of the whole research consisted of 360 participants, 60 of them have participated in the pretest (the manipulation check) where 54 surveys were considered, and 6 surveys have been discarded. 300 respondents have participated in the main experiment, 230 surveys were completed, whereas 70 surveys have been discarded either because it's uncompleted or the participants answered the previously presented screening question by No. The response rate for the whole research was 100%; whereas the completion rate for the whole research was 78%, the main experiment completion rate was 76%, and for the pretest was 90%.

Regarding the pretest, 50% of the participants were male, while 50% of them were females; the largest age group of the participants was 1997-1981 (Generation Y) with 92.6%, whereas the least age group was (Between 1998 - 2003) with (1.9%). Regarding the education level, the greatest participants portion had a (Bachelor Degree) with (48.1%), whereas the least portion was for (Ph.D. Degree) with (20.4%). According to the monthly income level, the majority of the participants were earning (500 \$ - 700 \$) with (40.7%), while the smallest portion was for the participants who earn (701 \$ - 900 \$) with (7.4%). Related to the weekly internet usage average time, the majority of the respondents were engaged in the group of (20-30 hours) with (48.1%), and the least portion was for the period (Less than 14 hours) with (1.9%).

Within the borders of the main experiment, the sample consisted of 230 valid surveys for analysis, the sample was collected randomly from the administrative and the academic staff at the Middle East University- Jordan, because of the various age groups between the university's staff. 140 participants were engaged in the sensual message and the rest of them have been engaged in the guilt message. 55.7% of the participants were male, while 44.3 % of them were females; the largest age group of the participants was 1997-1981 (Generation Y) with 71.7 %, whereas the least age group was (Between 1998 - 2003) with (1.3%). Regarding the education level, the greatest participants portion had a (Ph.D. Degree) with (50.4%), whereas the least portion was for (Bachelor Degree) with (17 %). According to the monthly income level, the majority of the participants were earning (More than 1101\$) with (49.6%), while the smallest portion was for the participants who earn (500 \$ - 700 \$) with (3%). Related to the weekly internet usage average time, the majority of the respondents were engaged in the group of (20-30 hours) with (41.7%), and the least portion was for the period (Less than 14 hours) with (7%).

# 4.2 Data Collection Procedures

In a way to collect the data electronically, on a five-point Likert scale that ranged from 1 = strongly disagree to 5 = strongly agree, Google forms have been employed to create the needed surveys which were four forms, two of them were created for the pretest, one of them represents the sensual message and the second one represented the guilt message. While the rest two forms represented the sensual message and guilt message for the main experiment. In the beginning, the respondents will be exposed to the stimuli (the message) either the sensual or the guilt message, then the respondents will rate the environmental concerns by answering four statements, and their willingness to pay a premium price by answering three statements. After that, the respondents will answer some required demographics. The survey links have been sent to the participants on their official e-mail addresses. For the sensual message in the pretest, the link was sent randomly to 30 members of the list, and the second link which represented the guilt message was sent to another 30 members of the list. Regarding the main experiment, the links were sent to 300 members of the list, each 150 members having received a different link regarding one type of message appeal. Have to know that no respondent participated in more than one survey. The pretest survey consisted of three parts, the first part contains an introduction about the survey, the second part has been started with the screening question. After that, the participants will see the stimuli (See Fig. 1. And Fig. 2.), followed by the manipulation check question as follows: (To which limit that the stimuli you have read presented message Guilt Appeal/ Sensual appeal?), to make sure that the stimuli measured what it should measure. The third part contained the needed demographic such as age, gender, education level, weekly internet average usage, and monthly income level. Related to the main experiment survey, it consisted of five parts, where the first part was the same as the one in the pre-test which was the introduction of the survey. The second part expressed the screening question and the stimuli (See Fig. 1. And Fig. 2.), followed by two questions as a manipulation check as follows: (What have you seen in the presented picture sensual massage or guilt message?), and the second question was "Back to the image that you have seen before, to which limit that the stimuli you have read presented message Sensual appeal / Guilt appeal?". The third part measured the environmental concerns as a mediator with four items obtained from the study of (Kang et al., 2012). The fourth part measured the willingness to pay a premium as a dependent variable with three items obtained from the study of (Gonzalez-Rodriguez et al., 2019). The last part discussed the demographics of the participants.

#### 5. Results and discussion

#### 5.1 Reliability Analysis

By employing the Cronbach's  $\alpha$ , all of the measurement scales have been tested if they measured what it should be by employing the Cronbach's  $\alpha$  value. environmental concerns stated a reliability score of ( $\alpha = 0.783$ ), while the willingness to pay premium prices reliability score of ( $\alpha = 0.791$ ). Both results are greater than the acceptable value of 0.07, which indicates that the data's internal consistency is reliable.

# 5.2 The Manipulation checks

The conclusions assessed exhibited that all of the participants could exactly be designated that the message appeals drew in the stimuli ( $M_{\text{sensual massage}} = 4.015$  vs.  $M_{\text{guilt message}} = 4.012$ ; both are larger than the median which is equal to 4.00). Thus, the message appeal manipulation was efficient.

# 5.3 The main experiment

Regarding (H1) which was verified by using the independent sample t-test to decide whether there is a significant difference among the effect of sensual and guilt message appeals as independent variables on the willingness to pay a premium as a dependent variable. By having a comparison between the effect of the sensual message appeal and the guilt message appeal on the willingness to pay a premium, the findings stated that the participants who are subjected to the sensual message extracted a greater willingness to pay premium prices ( $M_{\text{sensual massage}} = 3.64$ , S.D. = 0.65) than the participants who are subjected to guilt message ( $M_{\text{guilt message}} = 3.11$ , S.D. = 0.78). By taking into consideration the confidence interval (95%), the independent sample t-test displayed a statistical significance of ( $t_{(230)} = 2.41$ , p=0.04<0.05). Thus, H1 has been supported.

Regarding (H2), the findings stated that there is a significant variance in environmental concerns amongst both groups ( $t_{(230)} = -2.01$ , p=0.03 < 0.05). Particularly, the participants subjected to the sensual message have a greater ability to take into consideration the environmental concerns ( $M_{\text{sensual massage}} = 3.42$ , S.D. = 0.69) than the participants who were subjected to the guilt message ( $M_{\text{guilt message}} = 3.12$ , S.D. = 0.70). Therefore, H2 has been supported.

#### 5.4 The mediating effect of environmental concerns

The current study hypothesized that environmental concerns mediate the relationship between the message appeal (sensual vs. guilt) and the willingness to pay a premium price. By employing the PROCESS macro (Ver. 3.5), and at the 95%, biascorrected bootstrap confidence interval (N = 5000) which has been developed by (Hayes, 2013). Within this study, the method of (Su et al., 2020) has been used, by coding the independent variable with 1 for the sensual message and 2 for the guilt message.

**Table 1**The direct impact of environmental concerns

	Effect	BootLLCI	BootULCI
INV	0.5132	0.2212	0.8230

As displayed in Table 1, the direct mediating impact of environmental concerns was ( $\beta = 0.5132$ , at 95% CI, the lower Boot of the CI (BootLLCI) = 0.2212, where the upper Boot Upper of the CI (BootULCI) = 0.8230). In different words, there is a significant relationship.

Table 2
The indirect impact of environmental concerns

	Effect	BootLLC	BootULCI
INV	0.210	0.3231	0.7410

As displayed in Table 2, the indirect impact of environmental concerns on the relationship between message appeal and willingness to pay premium prices, the impact stated a significant relationship ( $\beta$  = 0.210, at 95% CI, the lower Boot of the CI (BootLLCI) = 0.3231, where the upper Boot of the CI (BootULCI) = 0.7410). Therefore, the relationship between the message appeal and willingness to pay premium prices is mediated by environmental concerns. As a result, H3 has been supported.

#### 5.5 The moderating impact of generation

According to generation as a moderator, two way ANOVA tests were employed to investigate the moderation impact of generation on message appeal and the willingness to pay a premium, and message appeal and environmental concerns. (H4) proposes the first relationship where the generation is a moderator on the relationship between the message appeal (sensual

vs. guilt) and the customer willingness to pay premium prices. The results stated a significant moderating influence of generation on that relationship (F (1) = 4.05, p < 0.05).

The interaction effect is charted in Fig. 4, which displays that generation Z does not have any willingness to pay premium level when they are exposed to a guilt message, where they have a high level of their willingness to pay a premium when they are exposed to the sensual massage. The findings of generation Y stated nearly similar results when they were exposed to sensual messages and guilt messages. Conversely, generation Z stated that when they were exposed to sensual messages their willingness to pay premium was higher than when they were exposed to guilt messages. Consequently, H4 has been supported.

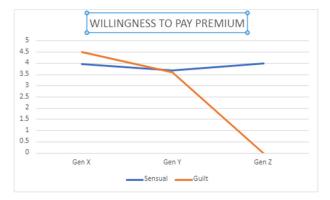


Fig. 4. The interaction effect of generations

(H5) suggests that the generation is a moderator on the relationship between the message appeal (sensual vs. guilt) and the environmental concerns. The findings stated a significant moderating influence of generation on that relationship (F (1) = 4.01, p < 0.05). Thus, H5 has been supported.

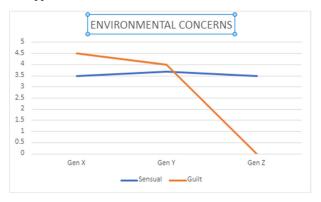


Fig. 5. The interaction effect of generations

The interaction effect is charted in Fig. 5, which displays that generation Z does not have any level of environmental concerns adoption when they are exposed to a guilt message, where they have a high level of environmental concerns adoption when they are exposed to the sensual massage. The results from generation Y stated that when they were exposed to a guilt message, they had a higher level of environmental concerns than when they were exposed to the sensual massage. Concerning generation X, the findings stated that when they were exposed to a guilt message, they had a higher level of environmental concerns than when they were exposed to the sensual massage. Hence, H5 is supported.

#### 6. Summary of the Study

The current study borrowed the experimental research design to test the causality relationship between the message appeal on social media (sensual vs. guilt), and the customers' willingness to pay premium prices, to examine the mediating role of environmental concerns, and test the moderating role of generation. The results revealed that the customers have a greater willingness to pay when they are exposed to the stimuli that express the sensual massage. These posts activate the customer's emotional thinking, and encourage them to see the post in its form either pictures or videos, customer feedback, and might share and publish reviews on their social media accounts or the official accounts of the brand. Furthermore, the current study displays how the customer's generation affects their willingness to pay premium prices for specific products and the

customer's level of environmental concerns adoption; particularly, generation X customers displayed a greater willingness to pay premium prices in both cases (sensual massage and guilt message) comparing to generation Y, while generation Z did not have any willingness to pay premium prices. The same findings related to the environmental concerns adoption, generation X customers displayed a greater level of environmental concerns adoption in both cases (sensual massage and guilt message) compared to Generation Y, while generation Z did not have any level of environmental concerns adoption. Additionally, the findings exhibit that environmental concerns have a direct and indirect effect on the message appeal on the willingness to pay premium prices.

# 6.1 Managerial contributions

Managers may use the findings of this study to help them build sustainability messaging for their social media ads. The most crucial aspect to understand is that marketers may utilize commercials to elicit positive feelings in customers, boosting their willingness to pay premium prices. Sensual appeal elicited higher levels of response than guilt appeal, according to the findings. As a result, social media marketers should concentrate on establishing sensual appeals that elicit emotional responses from consumers. Managers may also analyse the quality of their marketing efforts by evaluating the message appeal depending on the extent to which consumers are willing to pay. Furthermore, advertisers might utilize this data to help them select what sort of content to include not just in textual postings, but also in visual creative like images and videos.

This research has given rise to certain restaurant management concepts. Academics have already recognized several of them, therefore the findings back up current guidance to sustainability initiative providers. Other factors haven't been well explored by researchers, while it's likely that managers embraced advice based on their "gut reaction" about how to promote green produce. The findings of this study revealed that customers' environmental concerns and attitudes will influence their willingness to pay a premium for a sustainable restaurant in particular, as well as any other green items being examined. Besides deciding willingness to pay a premium, these characteristics also have an impact on how environmental concerns influence consumers' willingness to pay a premium for environmentally-friendly restaurants. Consumers' environmental concerns prompt them to seek assistance in the form of knowledge-rich surroundings. As a result, a variety of ways for communicating sustainability initiatives, such as integrating social media, can break through the clutter of fast television. Managers may be able to come up with innovative approaches to market their sustainability initiatives and solve the obstacles that are preventing widespread acceptance using this knowledge. Better willingness to pay a premium for sustainability initiatives will boost sales.

The findings revealed that environmental concerns play a mediating role in the relationship between message appeal and willingness to pay a premium. Marketers should examine how environmental concerns affect customers' willingness to pay a premium and how message types, notably guilt and sensuality, improve consumers' willingness to pay a premium via personal relevance when developing advertising tactics. Furthermore, the study sheds light on how environmental concerns alter between generations when people are exposed to guilt or sensual messages. Advertisers may set up ad settings on social networking sites to target consumers based on their age and other demographic factors, therefore marketers must know which message type will result in more payments. When developing advertisements, marketers should consider the substantial moderating impact of environmental concerns and choose the most successful campaign that would appeal to the targeted generation. This research aids marketers in determining which message type to utilize when designing marketing campaigns. As a consequence, by implementing these methods and ideas, social media marketers may get greater outcomes and more effective campaigns.

### 6.2 Theoretical contributions

This study adds to the body of knowledge in several ways. First, this study assesses the impact of two input communication components, namely the message (sensual appeal versus guilt appeal) and the source (restaurants), on willingness to pay a premium, mediating environmental concern and generation, using McGuire's (1989, 2000) communication—persuasion matrix. The study uses McGuire's communication—persuasion matrix to estimate the impact of social media digital marketing on sustainability initiatives in the context of eco-friendly restaurants. Second, this study contributes to the increasing body of knowledge on digital marketing and social media. Although earlier studies have shown that both consumers and businesses use social media to promote sustainability initiatives, this study adds to the body of knowledge by investigating the impact of digital marketing of sustainability initiatives on willingness to pay a premium in restaurants. According to the findings of the investigation, restaurants must successfully implement digital sustainability initiatives and practices to favourably affect their willingness to pay a premium.

Third, as social media platforms grow in popularity, marketers are increasingly turning to them for sustainability initiatives (Kucukusta et al., 2019; Tölkes, 2018). This research adds to the usage of new communications by looking at sustainability initiatives on social media. It is in line with the findings of Kucukusta et al. (2019) and Nusair (2020), which indicate that a rising number of companies are using social media platforms for marketing communications. The outcomes of the study show how the message of sustainability should be articulated to be effective on social media.

Fourth, prior studies have explored the role of sustainability messages in terms of positively framed vs negatively framed, assertive vs unassertive, active vs passive, affective vs rational, and self-benefit vs others-benefit messages (Font et al., 2017; Hardeman et al., 2017; Jacobson et al., 2019; Kim & Kim, 2014; Kronrod et al., 2012), this study assesses the effect of emotional appeals in terms of the sensual appeal and the guilt appeal, which are currently underexplored. The findings of the study correspond to those of Kapoor et al. (2021), who find that the impact of sensual appeal on willingness to pay a premium is greater than the effect of guilt appeal. Therefore, in line with previous research, this study adds to our understanding of restaurant sustainability initiatives, but it goes a step further by looking at message appeals in terms of sensory and guilt appeals, a newly explored area.

Fifth, in the literature, the mediating role of environmental concerns and generation in the connection between message appeals and willingness to pay a premium is still understudied. Although various research has looked at the role of environmental concerns and generation as moderators, their impact as antecedents that mediate the effect of message appeals as social media postings on consumers' willingness to pay a premium has received little attention. The study adds to the body of knowledge by highlighting the influence of generations on environmental concerns and willingness to pay a premium. There has been little previous research that has attempted to reveal the interaction relationship between messaging strategies and willingness to pay a premium among generations X, Y, and Z. The majority of previous studies (Ambrose et al., 2020; Bento et al., 2018; Heinze, 2010) focuses on either X and Y or one of them. On the other hand, little study has been done on the behaviour of Gen Zer's on social media platforms, and no prior studies have attempted to identify the interaction relationship between messaging strategies and willingness to pay a premium across generations X, Y, and Z. The findings of this study filled a gap in the literature by demonstrating that generation moderated the impact of guilt and sensual messages.

Finally, this research adds to the body of knowledge on employing message appeals to persuade customers to pay premiums. Recent studies have aimed to discover sustainability initiatives as endorsers to promote sustainable services, due to the rising popularity of sustainability initiatives (Nusair, 2020). This research reveals that using guilt and sensual appeal in digital marketing of sustainability initiatives may successfully induce people to spend higher prices at eco-friendly restaurants.

#### 6.3 Limitations and Future Research Directions

This study adds to the body of knowledge on sustainability by assessing consumers' responses to advertising stimuli (guilt and sensual) messages. Nonetheless, there are certain limitations to this study that should be considered to guide future research. First, it looked at two emotional appeals: sensual and guilt, rather than other positive and negative emotional appeals including fear, nostalgia, and guilty pleasure. Second, this research focuses on social media sustainability initiatives. Considering that social media platforms differ in terms of variety and interaction (M. Lee et al., 2021), researchers should examine the features of different social media platforms when determining the efficacy of sustainability initiatives. Third, the researcher does not use theories to link between the variables, future studies should depend on the theoretical lens to link between the variables and use other outcomes as dependent variables such as E-wom, online brand advocacy, customer engagement, etc. Likewise, this study did not take into consideration the moderated-mediation impact of generations and environmental concerns; this relationship is worth researching to enhance this research model and might change the mediator variable such as reputation, customer trust, etc. Fourth, it is valuable to repeat the study using actual advertising stimuli and a real restaurant brand to meet the objective; this enhances the exterior and overpowering limitations of this research's findings, such as guaranteeing that all data collected comes from users who are currently using or have previously used social platforms and supporting the sustainable initiatives.

Fifth, for generalizability, the sample size of targeted generations is quite limited. Collecting a larger number of participants from this generation group will help to overcome this constraint and produce more reliable results. Moreover, the respondents are only Jordanian restaurant guests, and thus generalizing and extending the results to other geographic regions may be challenging, future studies should choose different countries and larger samples, especially from generation Z.

In the future, scholars might test the hypothesis of this study using other media types instead of a picture, such as videos might cause more positive and favorable behaviors and attitudes (J. Lee & Hong, 2016; Sung & Cho, 2012), not only in the hospitality sector, but also in other fields such as home appliances, automobile industry. Using other control variables such as gender and education level might add to the results. Overall, these potential study areas provide several possibilities to further the literature and practice of social media and sustainability.

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