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Predicting the Organic Food Purchase Behaviour in Egypt:
An Empirical Study Investigating the Pro-Environmental and Service-Scape
Effect on the Consumer's Purchase Behaviour

R F TALAAT

PhD

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Predicting The Organic Food Purchase Behaviour In Egypt: An Empirical Study Investigating the Pro-Environmental and Service-Scape Effect on the Consumer's Purchase Behaviour

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A thesis submitted in partial fulfillment of the requirements of the University of Northumbria at Newcastle for the degree of Doctor of Philosophy

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Abstract

Society is faced with increased environmental deterioration due to the current status of environmental pollution and scarcity of resources, making it a necessity to evolve towards sustainable lifestyles which pressure people to change their behavioural patterns. Consumer's pro-environmental behaviour has not received enough attention at theoretical and practical levels in developing countries. The research investigates the organic food purchase resulting from pro-environmental behaviour in the Egyptian market, with a particular focus on the service-scape phenomenon. Although the literature states that organic food purchasing is considered a pro-environmental activity, there is still no agreement on the antecedents that best predict organic food purchase as a result of pro-environmental behaviour. Furthermore, studies show that consumers have little knowledge of the link between their purchase choices and its environmental consequences which stresses on the gap between the attitude, intention and behaviour. Accordingly, this study goes forward with extending the framework of the theory of planned behaviour in efforts of tackling the aforementioned gaps and bridging them by examining pro-environmental behaving on an individual level. The research aims at bringing out new insights based on the development of a comprehensive framework. Moreover, expanding the understanding of the service-scape in an original approach by

exploring the physical, social, and natural dimensions in the organic food grocery retail industry.

The research contributes to knowledge by providing a solid body of knowledge of the antecedents that best predict organic food purchase from a pro-environmental behaviour perspective. Also, gaining new knowledge related to the service-scape concept and its application in the organic food retailing context. The contribution to theory in this work emerges from the development of a hypotheses tested conceptual model that offers a deeper understanding to the organic food purchase decision in relation to behaving pro-environmentally and the service-scape concept. Practically, the results help diverse stakeholders understand the organic food purchasing/pro-environmental behaviour from a service-scape perspective which will prosper the environmental essence in the society by increasing consumers' environmental awareness and responsibility and hence, achieve sustainability lifestyle goals.

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Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work. I also confirm that this work fully acknowledges opinions, ideas and contributions from the work of others. Any ethical clearance for the research presented in this commentary has been approved. Approval has been sought and granted through the Researcher's submission to Northumbria University's Ethics Online System / external committee on [December 2015].

I declare that the Word Count of this Thesis is 87,794 words

Name: Randa Farouk Talaat

Signature:

Date: 30/7/2021

1. Introduction

1.1. Overview

The planet's ability to generate resources is being surpassed, as people recently are producing and consuming more resources (McCarthy *et al.*, 2018). World population is expected to reach nine billion people by 2050, with such an expectation, a 70% increase in global food production will be required. Consequently, this challenge of securing food puts pressure on the environment to meet the increased demand (McCarthy *et al.*, 2018). Currently, the resources are scarce which cannot meet human demands by 2050. We reached a point where the quality of air and water needs to be improved, the level of production needs to be balanced and the amount of waste generated needs to be decreased (Schanes *et al.*, 2018). Moreover, pollution and over usage of the world's resources are increasingly threatening man's wellbeing and quality of life (Ebadi *et al.*, 2020). The humankind is facing unprecedented global environmental challenges like resource diminution. Additionally, humans are consuming 30% more resources than the Earth can replenish each year. At this rate, humans would need two planets to provide for their wants by the 2030s. The planet cannot sustain this pattern of consumption anymore. Therefore, this new reality must be acknowledged and managed. An evolution towards a more sustainable lifestyle is essential to ensure future generation's access to fair share of resources (Bengtsson *et al.*, 2018; Witjes & Lozano, 2016). The rapid growth in the economy and the patterns of consumption and consumer behaviour are considered among the main causes of environmental deterioration which explain the global interest in pro-environmental behaviour (Taufique & Vaithianathan, 2018). Trying to understand the key drivers behind such behaviour, predicting its development and eventually changing it to minimize negative outcomes is essential (Yuriev *et al.*, 2020). It is expected that if the current trend of economic growth and irresponsible consumption pattern continues, the environment degradation would worsen. Therefore, a shift towards more sustainable consumption patterns is crucial (Schroeder *et al.*, 2019).

There are various terminologies used interchangeably to denote pro-environmental behaviour, such as sustainable consumption, green consumption, environmentally sustainable behaviour, and environmentally-friendly behaviour.

The term that will be used across this research will be pro-environmental behaviour. Pro-environmental behaviour from an individual perspective, is defined as the consumers' purchase, use, and disposal of personal and household products in ways that preserve the environment (Park & Ha, 2012). Moreover, it reflects concerns for other people, next generations, other species or the whole ecosystems as well as self-interest activities (Morren & Grinstein, 2016). Pro-environmental behaviour could be investigated through two main perspectives either "impact-oriented" or "intent-oriented". The former defines behaviour according to the extent it changes the dynamics of ecosystems. The latter defines behaviour as an individual's decision-making outcome which deals with the private-sphere pro-environmental behaviours. Furthermore, pro-environmental behaviour can be viewed either as behaviour motivated by anticipated desirable outcomes (drawing on rational choice theories) or as pro-social behaviours (relying on norm activation models). Pro-environmental behaviour is multidimensional and too diverse to be measured with a brief scale (Stern, 2000). To be able to manage such a challenge, an understanding of individual-level attitudes, motives, values and intentions is important (Groening *et al.*, 2018). Hence, the prediction of pro-environmental behaviour can be done using three approaches (Steg & Vlek, 2009). The first is based on costs/benefit rational approach, where most research using this approach depends on cognitive models using theories like the Theory of Planned Behavior (TPB, Ajzen, 1991). Furthermore, the second approach is stimulated through moral and normative considerations underlying behaviour where, most research using this approach uses theories as the Norm Activation Model (NAM, Schwartz, 1977) and the Value Belief Norm Theory (VBN, Stern, 2000). Moreover, the third one inspects the impact of affective elements on the adoption of pro-environmental behaviour where, most studies using this approach are exploratory and not theory based (Elgaaied, 2012).

This study will be focusing on examining the private sphere environmental behaviour which is the purchase of organic food as a result of pro-environmental behaviour. Moreover, the research will rest on the first view by drawing mainly on the Theory of Planned Behaviour, while considering important constructs from other theories, studies and concepts in efforts to extending the theory to capture the essence of the other different views all in one proposed conceptual model. The

researcher will be studying how different psychological variables such as: personal values, attitude towards organic food purchase, perceived behavioural control, social influence, anticipated environmental guilt, intentions towards organic food purchase and store's atmospherics affect the purchase of organic food as a result of pro-environmental behaviour. Furthermore, the study will be integrating the social-psychological and the situational standpoints to extend and understand the service-scape phenomenon and its effect on the overall consumer's purchase decision. This will result in a wider and a more complete understanding of the topic as a whole.

From a practical perspective, extensive efforts are being made by policy makers, non-government organizations, companies and consumers to boost pro-environmental behaviour (Rahman *et al.*, 2017; Wee *et al.*, 2021). This is due to the rise of the concept of environmental consciousness and protection as a result of the increasing concerns of the destruction of natural resources from human activities. Environmental protection can be reflected in different types of behaviours and buying organic is one of them (Gordon-Wilson & Modi, 2015; Yadav & Pathak, 2016). These behaviours lead to new categories of products and consumers, which create the need for companies to understand their identity and what stimulates their buying behaviour (Goncalves *et al.*, 2016). An organic product is defined as “a product that was manufactured using toxic-free ingredients and environmentally-friendly procedures and is certified by a recognized organization” (Gurau & Ranchhod, 2005 p. 547). While, an environmentally conscious consumer, can be defined as a consumer that takes into account the public consequences of his or her private consumption (Webster, 1975, cited in Grimmer *et al.*, 2016).

Recent studies revealed that in Western societies, environmental concerns have become part of many people's morality, with an increasing trend towards more universalism and against egoistic values (Lindberg *et al.*, 2018). As a consequence, steady growth in the worldwide organic market was observed in recent years (Peng, 2019). Also, the beginning of the 21st century is marked by a leap in consumer's pro-environmental awareness due to the environmental problems which are a result of wasteful consumption habits (Ogiemwonyi *et al.*, 2020; Svensson & Wagner, 2012). Nevertheless, a considerable body of knowledge and data has pointed out that the situation in recent years has worsened. This indicates that existing efforts

encouraging pro-environmental consumption have been unsuccessful (Graham-Rowe *et al.*, 2019). pro-environmental behaviour maybe not invested properly because the majority of consumers do not understand their power in making a difference to the environment nor they recognize their obligations towards the environment and their responsibility for the environmental degradation (Cleveland *et al.*, 2012; Qi & Ploeger, 2019).

In the last 30 years, marketing managers struggled to understand the emerging “organic market” and identify the determinants of the pro-environmental consumer behaviour. This in turn motivated ubiquitous academic research resulting in several publications across several disciplines with conflicting results and little consensus about how to understand and predict consumer’s organic purchase as a result of pro environmental behaviour. Consequently, this further challenged marketers across the world and reflected interest in the organic food market (Grønhøj & Hubert, 2021; Morren & Grinstein, 2016). Moving to organic is the absolute global trend of the time making it one of the biggest growth markets in food industry (Arenas-Jal *et al.*, 2019; Zhu, 2018).

The literature highlighted a diversity of variables that affects pro-environmental behaviour. Yet, it was interestingly noticed that non-environmental factors had greater effect than environmental ones such as money-savings and/or health improvement (Gifford and Nilsson, 2014; Whitmarsh & O’neill, 2010). These findings among others yield an interesting area for research (Grimmer *et al.*, 2016; Yuriev *et al.*, 2020). The intent- oriented pro-environmental behaviour does not guarantee a behavioural impact which highlights the possibility of environmental intent failing to result in environmental impact. Individuals may behave in ways that are pro-environmental in intent, but have little or no positive environmental impact in fact. On the contrary, environmentally beneficial actions may be a result of non-environmental concerns suggesting that environmentalist pre-dispositions vary significantly with the behaviour, the actor and the context (Blankenberg & Alhusenb, 2019). For example, the organic food premium prices may be a barrier to purchase for some individuals and a sign of superiority for others. Consumers’ concerns do not always convert to consequent actions (Nguyen *et al.*, 2019). For example, in a study conducted by Unilever in (2017), among 20,000 respondents in

five countries (United Kingdom, United States, India, Turkey and Brazil) only 33% of the respondents stated that they chose to purchase brands that are socially and environmentally responsible.

As the environment conditions continue to worsen, the “green movement” has become an important public concern in developed countries and this concern has been awakened in developing countries as well (The United Nations, 2011; The World Bank, 2014). The growth in the world market is concentrated in developed countries with consumer behaviour studies towards a range of pro-environmental products. Therefore, a gap is highlighted with the little attention given to the area of organic food and consumers' pro-environmental between developed and developing countries with only a few notable studies published (Abelradi, 2018; Alzubaidi *et al.*, 2021; Konuk *et al.*, 2015; Zhu, 2018). Numerous questions remain unanswered especially in the Egyptian context where the research is at a nascent stage despite being a potential emerging market within this region (Adly, 2019; Standard Chartered and World Bank Report, 2019). A developing country like Egypt faces a lot of challenges in trying to ensure a balance between economic development and environmental sustainability. With the recent rapid economic development, a series of serious and worrying environmental problems (urban air, river quality, deforestation, household waste and hazardous waste) aroused causing major concerns among Egyptians (Adly, 2019; Subandi *et al.*, 2019). The available natural resources must support a speedily growing population. Hence, sound management of these resources, coupled with continuous improvement in environmental protection are an obvious necessity (El Alaoui & Nekrache, 2019). Currently, the Egyptian government is increasing the policy support to all environmental activities in general and accelerating the pace of organic industry in specific. This is mainly in response to the increased consumer awareness about consumption-related environmental impact that leads to global growth in the organic food market (Peberdy *et al.*, 2019; Willer *et al.*, 2019). The main result is benefiting the environment and creating business opportunities within this growing niche market.

The researcher noticed the limited number of studies conducted in Egypt which as a result highlights the research importance. More consumers in Egypt express their concern over the environmental situation and proclaim their

willingness to contribute somehow to the protection of environment. However, in reality this concern may not be manifested reliably (Eshra & Beshir, 2017). Thus, it is crucial to understand pro-environmental consumer behaviour and the organic food purchase decision especially in Egypt, where the trend is still novel (Pham *et al.*, 2019). Such understanding will facilitate taking advantage of the available opportunities. Besides, understanding the service-scape phenomenon and how it affects the consumer's behavioural decision in the Egyptian context is twofold. First, it will cover gaps in the literature by providing a better understanding of the concept as a whole and on applying such a concept on the retailing industry in specific. Second, this research will give a clearer picture on the effect of this phenomenon on Egyptian consumers giving practitioners a more solid ground on how to control and manipulate such a concept in order to motivate pro-environmental behaviour. Rooted in consumer behaviour theories and models, the literature addresses samples from various behavioural studies of several countries and cross countries elaborating pro-environmental aspects of behaviour. This study is considered an attempt to develop an understanding that goes along with the recently observed improvements of environmental awareness in the Middle Eastern region (Sakr & Abo Sena, 2017). Studies in an emerging market like Egypt are insightful, because Egypt has an attractive and competitive investment market, due to having a large consumer base (92.28 million up to 2019). The results can help formulate and implement suitable organic market strategies and programs.

It is important to note that the need to consume products in an environmentally sustainable fashion is not new. The concept of sustainability is a main notion for achieving market success and represents one of the most important super-phenomena of marketing and society (Kemper *et al.*, 2019). Due to the importance of environmental sustainability in human society, growing attention is recently given to individual's participation in pro-environmental behaviour (Testa *et al.*, 2018; The World Business Council for Sustainable Development, Rajapaksa *et al.*, 2019). Businesses are drawing more attention to sustainable consumption as a result of stricter environmental regulation and strong pressures from stakeholders to preserve the environment (Hult, 2011; Martinico-Perez *et al.*, 2018; Schmitz *et al.*, 2019). The existent literature is considerably vague when approaching sustainability, green, organic, pro-environmental aspects. Overall, the organic/pro-environmental

process seems complex and inconsistent. This makes it difficult to segment such a market in the first place. What is more, the main controversy is with the definition and measurement amongst researchers, which highlights a vital yet fragmented literature domain leading to the overlapping of concepts. As a result, researchers are unable of differentiating literature streams based on the terminology used at this point.

After the above overview about the research topic, the following section will be presenting the research importance, research problem, aim, intended contribution and ending the chapter with the research objectives and questions.

1.2. Significance of the Study

It has become crucial to acknowledge and accept that the ecological worldview consists of accepting beliefs that human activity endangers the natural equilibrium (Ekawaty *et al.*, 2020; Klockner, 2013). These activities significantly contribute to the global environmental challenges that are faced which has raised the issue of environmental consciousness in consumer behaviour. consequently, an increase in the demand for environmental products in the market worldwide has been observed (Cleveland *et al.*, 2012; Lin & Niu, 2018). hence, new classes of consumers have emerged stressing the need to understand who are they and what motivates their buying behaviour (Dangi *et al.*, 2020). Behavioural change has the potential to reduce environmental damages so understanding the key drivers and antecedents affecting such purchase behavioural decision is pivotal (Bai *et al.*, 2019; Klockner, 2013) which reflects the importance of this research.

Moreover, understanding the link between the purchase behaviour and the environmental consequences is a complex yet critical process (Camilleri *et al.*, 2019; Ginn & Lickel, 2020). The service-scape phenomena can help simplify this relationship by expanding the understanding of the predicting power of each of its construct and presenting how all the elements together influence the intention to purchase organic food as and hence the purchase. The service-scape dimensions and their content are vague and subject to argument according to research (Eklund & Söreng, 2021; Rosenbaum and Massiah, 2011). Hence, there is a need to define the concept more clearly in order to be able to manipulate it in a way to create positive

consumer organic purchase decisions (Navas *et al.*, 2017) which supports the importance of this research.

1.3. Research Problem

Despite observed growth in the organic food market and improvements in environmental awareness, extensive efforts still need to be made (Golob *et al.*, 2018). According to Jungbluth *et al.* (2000), household individuals have an important environmental impact by changing their behaviour particularly their food choices. The broad literature on pro-environmental behaviour highlights the diversity of variables, which influence different environmentally significant behaviours (i.e., organic food purchase). The majority of the findings are diverse and not comparable due to differences in the organic food factors and market backgrounds, different consumer types and habits and different country specific contexts. Therefore, further work is needed to explore these variables, understand their interactions and consider their consequences and their contextual dimension (Ling & Xu, 2020; Scalco *et al.*, 2017).

Since the 1980s many scholars have been proposing and testing theories and models that aim to predict environmentally relevant behaviour in efforts, to identify entry points for interventional behaviour change. Until present, it is not entirely clear which of the model variables are central variables, which are direct determinants of behaviour or which have moderation and/or mediated influence on behaviour. When it comes to attitude – intention – behaviour relationships a gap still exists (Chekima *et al.*, 2017; Schäufele & Janssen, 2021). While the majority of consumers consider themselves as environmentally sensitive individuals, many studies do not show consistent results with regard to behaviour. This complex illogicality suggests the need for research to deal with the enormous cut off between attitudes, intention and purchase behaviour. Researches building on the Theory of Planned Behaviour (Ajzen, 1991) showed discrepancy between consumers' attitudes and their intentions and/or between their intentions and their behaviour. Wang *et al.*, (2019) among others pointed out that studies mainly focus on the intention to purchase and not on consumer choice (first discrepancy). They investigate the factors affecting the intention to purchase organic food as a proxy to foster organic food purchase. Limited studies measure purchase behaviour, mainly focusing on the attitude as a

predictor of behaviour. The results are heterogeneous, inconsistent and sometimes contradictory making the organic food research disproportional (Bostan *et al.*, 2019; Hauser *et al.*, 2013).

An individual's value system and priorities affect the attitude/intention formation (Ajzen & Fishbein, 1980). Pro-environmental behaviour is initiated from believing that important personal values are under threat and that individual actions will help restore these values (Stern *et al.*, 1999). Based on the work of Schwartz (2010), there are improvements that need to be done to understand values and their relationships with a variety of other social and psychological variables. Moreover, the empirical studies on the moderating impact of personal values are quite rare (Koon *et al.*, 2020; Zhou *et al.*, 2013).

Social Structures shape individual experiences and ultimately their behaviour. Therefore, the addition of the social context within the social-psychological processes is vital. On a similar note, according to Grimmer *et al.* (2016), consumer behaviour models typically ignore the situational effect during behaviour. Consequently, there is a call to better examine such relationships and re-assess theories, models and relevant variables that influence organic food purchase. Furthermore, apart from the consent on the impact of various service-scape dimensions on the behavioural intentions (Campbell & Fairhurst, 2016), still there is a gap in the empirical research demonstrating the different roles the concept plays among various sectors – the grocery retailing industry (Lindberg *et al.*, 2018; Navas *et al.*, 2018).

Bottom line, this study attempts to use the classical Ajzen's (1991) Theory of Planned Behaviour as a key framework to explain pro-environmental behaviour. The proposed model will show the different variables discussed and their interaction in influencing the behaviour. Covering these areas could generate a lot of new insights benefiting the organic research and giving a better understanding of pro-environmental consumer behaviour.

1.4. Research Aim

This research aims to enhance the understanding of consumer behaviour from an environmental perspective, through acknowledging and offering new

insights about the antecedents that best predict organic food purchase as a result of behaving pro-environmentally within the Egyptian context. It emphasizes presenting the interrelation between the intentions, pro-environmental behaviour and organic food purchase behavior (second disparity). Additionally, the research aims to examine how the purchase situation moderates the translation of intentions-to-purchase into purchase behaviour. Furthermore, the research will expand the understanding of Bitner's (1992) service-scape paradigm by embracing the physical, social, and natural dimensions. Therefore, the purpose of this research is to combine theories with discrete but complementary motivations which are important to pro-environmental behaviour along with other important relevant variables. This will enable the development of a comprehensive framework to provide a better understanding of important constructs predicting organic food purchase as a result of pro-environmental behaviour. Furthermore, the research will also help understand the effect of the service-scape different dimensions on the consumer's organic purchase decision within the pro-environmental domain.

1.5. Research Intended Contribution

The research intends to contribute to two different streams. First, it examines the consumer's organic food purchasing decision through understanding the relationship between organic food purchase and behaving pro-environmentally. The findings of this research should have theoretical implications for understanding the antecedents that best predict organic food purchase as a result of pro-environmental behaviour. It will discuss the drivers that help with the realization of intentions into real behaviour. In contrast to past research, this study will take into considerations more predictors than just the behavioural attitude. The research will integrate promising variables gathered from different theories, studies and concepts that best explain the behaviour under investigation. Adding the environmental dimension to the Theory of Planned Behaviour model –given the unique attributes of the organic food – will enable the prediction of the purchase behaviour in a more precise matter.

The second stream in which the research intends to contribute in is the “service-scape” and applying it to the organic food purchase scenario. The service-scape phenomenon encourages a lot of academics to study and investigate its various dimensions within different contexts, aiming to gain useful knowledge. Integrating

the service-scape phenomena will enrich the research by providing a deeper understanding of the antecedents that drive the consumer organic food purchase decision. The different dimensions will be measured in this research through different constructs. These dimensions will be contributing to the organic and the environmental psychology literature by extending Bitner's original work resulting in valuable insights. Furthermore, bringing out new knowledge that could be used by interested stakeholders to increase the value offered to consumers so that in the end he/she gets rewarded with a worthwhile satisfactory organic experience. This highlights the uniqueness of the research because according to the researcher's knowledge, the service-scape concept was not examined in the retailing industry. The majority of the research work is mainly on services industries.

As the future of the organic market is highly dependable on consumer's motivations. Consequently, this research will provide an extension to the Theory of Planned Behaviour model; especially designed drawing upon Schwartz's Refined Value Theory (self-transcendence values), anticipated guilt, social influence and store's atmospherics. It will construct and test a conceptual model with hypothesis from a sample of Egyptian consumers (while the majority of the studies are conducted in Europe or America). The above dimensions will highlight purchasing organic food on a personal, psychological and subconscious level, contributing to the literature. In addition, the research intends to insert the missing pieces of the services-scape puzzle by extending Bitner's (1992) work and testing the effect of the different dimensions on the consumer organic food purchase decision. In this direction, the research targets to emphasize on organic food purchase and test its relationship with pro-environmental behaviour, which is considered the central theme.

1.6. Research Objectives and Questions

The purpose of this research is to study the organic food purchase and its relationship to behaving pro-environmentally. Furthermore, the research sheds light on the service-scape phenomenon and its effect on the consumer's purchase decision through the following objectives:

1. Examine how the organic food purchase behaviour can be best predicted through specific antecedents.

2. Explore the attitude-intention-behaviour relationships.
3. Investigate the organic food purchase/pro-environmental behaviour relationship.
4. Understand the service-scape phenomena associated with organic food purchase within a pro-environmental context.

The following table summarizes the research questions that address the research objectives stated above.

Table (1.1): Research objectives and questions

Research Objective	Research Questions
Examine how the organic food purchase behaviour can be best predicted through specific antecedents	<ul style="list-style-type: none"> ▪ Q1A: How does the attitude towards organic food predict-organic food purchase? ▪ Q1B: How does the social influence predict organic food purchase? ▪ Q1C: How does the anticipated guilt towards the environment predict organic food purchase?
Explore the attitude-intention-behaviour relationships	<ul style="list-style-type: none"> ▪ Q2A: Do the self-transcendence values affect the attitude and the intention to purchase organic food relationship? ▪ Q2B: Do the self-transcendence values affect the social influence and the intention to purchase organic food relationship? ▪ Q2C: Do the self-transcendence values affect the anticipated guilt towards the environment and the intention to purchase organic food relationship? ▪ Q2D: Does the perceived behavioural control affect the attitude and the intention to purchase organic food relationship?
Investigate the organic food purchase/pro-environmental behaviour relationship	<ul style="list-style-type: none"> ▪ Q3A: What is the relationship between the intention to purchase organic food and the purchase of organic food? ▪ Q3B: What is the relationship between the

	<p>intention to purchase organic food and pro-environmental behaviour?</p> <ul style="list-style-type: none"> ▪ Q3C: Does store's atmospherics affect the organic food purchase intention and organic food purchase behaviour relationship? ▪ Q3D: Does store's atmospherics affect the organic food purchase intention and pro-environmental behaviour relationship? ▪ Q3E: Is purchasing organic food a result of pro-environmental behaviour?
<p>Understand the service-scape phenomena associated with organic food purchase within a pro-environmental context</p>	<ul style="list-style-type: none"> ▪ Q4A: Does the construct social influence (representing the social service-scape) have a positive effect on the consumer's purchase decision? ▪ Q4B: Does the construct anticipated guilt (representing the natural service-scape) have a positive effect on the consumer's purchase decision? ▪ Q4C: Does the construct self-transcendence (representing the natural service-scape) have a positive effect on the consumer's purchase decision? ▪ Q4D: Does the construct store's atmospherics (representing the physical service-scape) have a positive effect on the consumer's purchase decision? ▪ Q4E: Does the construct pro-environmental behaviour (representing the natural service-scape) have a positive effect on the consumer's purchase decision?

The researcher would like to end this chapter by presenting the sequence in which this thesis will follow. The following chapter (chapter two) will discuss the

literature review. Furthermore, it will be discussing the development of the theoretical background. Chapter three will then be illustrating the research methodological aspects used in this study along with the variable's validation and preliminary study. Chapter four will be illustrating the statistical analysis of the research results. Followed by, a discussion for those findings in chapter five. Lastly, the thesis will end by the summary chapter which summarizes the research aim, contributions, strategic implications, limitations and future research work.

2. Theoretical background, Literature Review and Hypothesis Development

In the previous chapter the current status of the global environmental deterioration was introduced as well as the risks and challenges involved with such degradation. Also, an overview of the consumer's pro-environmental behaviour was discussed. Additionally, the organic food market and the reasons for buying organic were presented and the current state of the organic market in Egypt was deliberated. In the current chapter, the theoretical background gives an overview about the consumer's pro-environmental behaviour different theories, models, perspectives and building blocks. It highlights the main theories that helped in building the research framework with specific emphasis on the environmental psychology, consumer behaviour and other situational considerations. Moreover, as a result of the interdisciplinary nature of the research topic, a detailed literature review follows discussing prior literature involving research from diverse disciplines, (management, marketing, psychology, environment, organic nutrition and food) concerned with different antecedents predicting consumer's organic food purchase in relation to pro-environmental behaviour.

The chapter illustrates the Theory of Planned Behaviour (TPB), the Norm Activation model (NAM), the Value-Belief-Norm Theory (VBN), the Social Cognition Theory (SCT), Personality Trait Theory (PTT), Schwartz Refined Value Theory and the Goal Framing Theory. The researcher discusses the important reasons behind choosing specific theories and constructs and how they were seen to perfectly fit the purpose of the research. Additionally, the role of the service-scape is explained and its importance to the current study from different perspectives. The literature review discusses specific service-scape domains elaborating the theoretical application of such phenomena on the consumer's purchase decision level. Furthermore, the chapter discovers the reasons of purchasing organic food and its relation to behaving pro-environmentally, explaining the theoretical framework and the proposed conceptual model adopted by the current study. Finally, the chapter ends with a summary highlighting the key points of the literature review developing the research hypotheses.

2.1. The Service-Scape Phenomenon

Bitner (1992) created the term “service-scape” based on the idea of Booms and Bitner (1982) to denote a physical setting in which a marketplace exchange is performed, delivered and consumed within a service organization (Zeithmal *et al.*, 2009). Her focus was to conceptualize the manufactured and physical dimensions that constitute service-scape. She assumed that physical surroundings influence important consumer behaviour. She noted that a consumption setting also comprises social and natural dimensions. Bitner went as far as to suggest that a consumer’s favorable response to a service-scape’s natural dimension would boost his/her response to the physical dimension. Yet she left the exploration of the impact of natural and social dimension to future researchers (Bitner, 1992). Incorporating the service-scape phenomena with the research variables enhance the quality of understanding of the whole proposed conceptual framework. It gives a logical standpoint to the results of the research.

Service-scape is a relevant concept in literature. This is reflected in the increase in the number of publications during the period of 1995 to 2021, focusing on sectors related to tourism, entertainment and health. The literature shows the retailing industry (8% of the publication) as an important scope. In addition to that, there is a solid stream of research demonstrating the impact of service-scape on various consumption constructs such as emotion, customer satisfaction (Johnson *et al.*, 2004; Kim, 2021), store image (Baker *et al.*, 1994; NGUYEN & NGUYEN, 2021), service quality (Batra & Taneja, 2021; Reimer & Kuehn, 2005), value for money (O’Cass & Grace, 2008; Widyawati & Widowati, 2021) and most relevantly behavioural intentions (Harris & Ezeh, 2008; Kampani & Jhamb, 2021). Generally, there is consensus supporting the important role that the service-scape plays but still there is a lack of empirical research addressing the role of different types of service-scape (Kearney *et al.*, 2013; Simanjuntak & Banjarnahor, 2021; Wakefield & Blodgett, 2016). However, it is clear that there are many sectors that were not explored properly especially in the grocery retail context (Lindberg *et al.*, 2018). Exploring the service-scape dimensions to understand the consumer’s purchase decision in the organic retail setting is acknowledged as a critical research area. More precisely, merging the different dimensions of the service-scape with other environmental constructs fills in literature gaps when it comes to organic food

purchasing behaviour from a pro-environmental perspective. Consistently, on a conceptual level, the ambiguity remains as there is little agreement between authors as to what constitutes the service-scape. Additionally, it is undecided what should be viewed as a service-scape dimension and what the content of these dimensions should be (Hooper *et al.*, 2013; Retief *et al.*, 2018). Therefore, there is a call to explore service-scape, especially for emerging topics. This could be applied to any area of business, to better create environments; hence consumer purchase experiences (Navas *et al.*, 2017).

The researcher aims to expand the understanding of Bitner's (1992) service-scape paradigm through embracing the physical, social, and natural dimensions. The literature suggests that much of the pioneering theoretical and empirical work remain unexplored in relation to the influence of such dimensions on consumer's purchase decisions and experiences (Fuentes & Sörum, 2019; Pecoraro *et al.*, 2021). There is a need to understand how the pro-environmental socio-material context influences the purchase decisions and convey the pro-environmental ideology through the purchase of organic food. Therefore, the research sheds light on applying the service-scape model within the context of organic food grocery retailing and understanding how the different cues shape the consumer organic food purchase. Stressing on the realization that the service-scape is no longer a singular concept but a multi-disciplinary paradigm that focuses on an array of relationships applied to goods and services. Furthermore, with the combined complexity of purchasing organic food and behaving in a pro-environmental manner (Hiller & Woodall, 2019), this research theoretically contributes to understanding how the service-scape convey organic food purchasing as a pro-environmental behaving activity.

In this research, the service-scape is examined through embedding its different dimensions in the model through different constructs. First, the physical dimension is represented and assessed by the construct "store's atmospherics". Going back to the literature, an increasing research stream on pro-environmental behaviours has directed attention to how the conceptualization of retail physical environments as service-scape shapes consumer's decisions (Pecoraro *et al.*, 2021). This happens by conveying the pro-environmental ideology while fostering

pleasurable experiences through the aesthetic dimensions (Schoolman, 2019). The physical service-scape is manifested in various tangible and intangible sensorial, temporal, and social elements that influence the consumer's purchase decision. Such clues communicate tailored pro-environmental messages through the physical place highlighting the effect of the service-scape physical dimension on conveying a pro-environmental ideology on the organic food purchase experience (Joy *et al.*, 2014; Lumivalo *et al.*, 2022). In the current study, the moderation effect of the store's atmospherics will elaborate the physical service-scape. Discovering the influence of the store's ambient, space, function and artifacts on the consumer's pro-environmental organic food purchase behaviour reveal the importance of the physical service-scape in conveying the consumer's organic food purchase decision in to a pro-environmental behaviour experience.

The second dimension which is the social service-scape is represented and assessed by the "social influence" construct. According to past literature, the communicated messages of social values and the way in which the products and services are talked about through different channels convey certain retail ideologies that play a role on the consumer's (Pecoraro *et al.*, 2021). The communication and presentation of moral and social values within the store environment and linking one's pro-environmental behaviour to certain ideologies based on operationalizing normative social ideals encompasses the effect of the social service-scape in conveying the consumer's decision in the pro-environmental direction (Dion & Arnould, 2011; Youn *et al.*, 2021). Evaluating the influence of different social actors during the time spent in the retail store grabs the essence of a social service-scape dimension by understanding how situational social influences guides the consumer with his/her pro-environmental organic food purchase decision.

The third service-scape dimension which is natural is represented and assessed by three different constructs which are "self-transcendence personal values", "anticipated guilt towards the environment" and "pro-environmental behaviour". This dimension highlights the connection of the individual with his/her nature and wildlife and reveals the consumer's internal reasons for acting in a pro-environmental manner. The literature shows that personal values and emotions can trigger certain pro-environmental ideologies and meanings which address

behaviours from a perspective of devotion to conserving nature and protecting the environment in which he/she lives in (Pecoraro *et al.*, 2021). Being proactive and caring for the environment is exhibited in the organic grocery shopping through the conceptualization of the natural service-scape dimension (Shaw *et al.*, 2017; Simanjuntak & Banjarnahor, 2021). In the present research, this implies getting engaged in a pro-environmental behaviour and purchasing organic food. Furthermore, retail stores show how the different elements together express the spirit of a natural service-scape by creating ideologies that orchestrate the pro-environmental behaviour during the purchase of organic food.

There is a need to a thorough understanding of how critical and complex environmental dimensions influence consumer behaviour. From a theoretical standpoint, the environmental psychologist Proshansky stated that “there is no physical setting that is not also a social, cultural, and psychological setting” (1978, p. 150). Subsequently, this research works in line with Bitner and Proshansky's perspective by highlighting how all the diverse dimensions act in harmony to influence consumer behaviour. Research shows that consumers within the store are affected by external stimuli as well as internal stimuli (Lindberg *et al.*, 2018). Moreover, the first feature that is perceived by the consumer is the store's environment and it is at this stage that consumers are likely to form impressions. It is an old cliché that you never get a second chance to make a first impression. Since it is very difficult to erase first impressions, service-scape should be assessed to make sure that consumers get the intended pro-environmental impression from the first encounter. Therefore, this research moves the service-scape paradigm forward by extending it to conceptualize an array of other cross-disciplinary research dimensions and to enhance understanding of environmental variables when considering consumer's purchase behaviour in an organic grocery store from a pro-environmental point of view.

The researcher assesses the physical dimension (according to Bitner, 1992) denoting both tangible and intangible controllable features that enhance or constrain consumer's actions. Store atmospherics have the ability to affect consumer both cognitively and emotionally (Babin & Darden, 1996; Laukkanen *et al.*, 2021). However, according to Machleit and Mantel (2001) and more recently Jin *et al.*,

(2021) emotions that are attributed to a store, have stronger impact on the consumer than emotions that are attributed internally. So within the context of this research store's atmospherics represent background environmental stimuli covering most importantly visual lighting (Dijkstra *et al.*, 2008; Lawless and Heymann, 2010; Spence *et al.*, 2014), aesthetic scents and smells (Hägerhed-Engman *et al.*, 2009; Mattila & Wirtz, 2001), auditory music (Andersson *et al.*, 2012; Hynes & Manson, 2016; Morin *et al.*, 2007; Oakes & North, 2008) furnishings, layout and accessibility elements (Bloch, 1995; Kotler, 1973; Spencer *et al.*, 2014; Wakefield & Blodgett, 1996). Testing these atmospherics work with previous studies, e.g., Spence *et al.* (2014) highlights the need for further research addressing the sensory aspects and how the multisensory retail environment shapes consumers' shopping behaviours. Furthermore, according to Mohan *et al.* (2012) and Regolini *et al.*, (2022), an effective shop layout will stimulate more in-store exploration by consumers which will lead to positive outcomes. Evaluating store atmospherics is crucial as it allows the consumer to understand the place meaning or identity, and by doing so, consumers answer internal questions, such as "what is this place?" and "will I be able to fulfill my goals in this place?". Consequently, the store can use atmospherics to "tell stories", while putting in consideration that consumer's interpretation and response to these stories are less controllable and sometimes quite different from the store's intent (Hall, 2008). In other words, although research shows that atmospherics can attempt to influence consumer strategically when controlled, consumers will still subjectively be influenced by service-scape with personal perceptions based on their "life worlds" (Seamon, 1979; Youn *et al.*, 2021). This directly influences their decisions and at the end they are rewarded with a worthwhile shopping experience (Roseenbaum & Messiah, 2011; Therok *et al.*, 2021).

Shopping as behaviour is no longer purely an exercise to get a product or a service. It has become a social experience (Terblanche, 2018; van Rompay *et al.*, 2012). Nowadays, consumers expect a multi-sensory, interactive, and holistic shopping experience that entertains, excites, emotionally affects and innovatively challenges them (Foster & McLelland, 2015; Marmat, 2022). Thus, currently shopping behaviour is perceived as more of a social activity as consumers are exposed to a number of social encounters during their experience. Being more

precise, the social dimension will extend the model by showing that consumer's purchase decisions are influenced by social, humanistic elements representing valued people, focal employees and other customers in the consumption setting and their expressed emotions. Therefore, the social influence variable in the proposed conceptual model will strengthen the predicting power of how all the variables together influence the behavioural intention of purchasing organic food. Researchers like Puccinelli *et al.*, (2009), Marques *et al.*, (2013) and recently Liu-Thompkins *et al.*, (2022) revealed that the interpersonal nature of the consumer/employee interaction may be the key to consumer purchase behaviour in the store's environmental stimuli. For example, consumers often like to go to farmers' markets not only to purchase fresh produce, but also to take part in conversations at these markets (Garner, 2019; Islam & Manaloor, 2017).

Another important hypothesis suggested by Wilson (1984) is the "biophilia hypothesis" that states that there is a distinctive bond existing between humans and other living systems, including nature and wildlife. Marketing research has been empirically exploring the natural dimension in consumer's environmental behaviour and its influence on purchase decisions outcomes, such as customer health and sustainable well-being (Rosenbaum, 2009b; Rosenbaum *et al.*, 2009; Wijekoon & Sabri, 2021). Consequently, considering constructs such as "Self-Transcendence values", "Anticipated Guilt" and "Pro-environmental Behaviour" are very critical in the proposed conceptual model. They could be drivers encouraging consumers on a personal and psychological level, mainly to subconsciously seek connection with "the rest of life". Then they would reflect this connection on their purchasing behaviours through understanding the link between their purchase choices and environmental consequences.

"Self-Transcendence values" are very consistent to the natural dimension by assessing how these values consider oneself as an integral part of the universe. It explains the moderation of the attitude-intention relationship. According to past research, intrinsic antecedents like self-transcendence values generate favorable environmental attitude and strengthen intentions towards behaving pro-environmentally in favor of the natural environment and welfare of others (Jakovcevic *et al.*, 2014; Schipper, 2021). Value conflicts between sustainable and

alternative behaviour in daily routines (Bachelor's thesis, University of Twente). Moreover, measuring the “Anticipated Guilt” towards the environment complements the natural dimension of the service-scape by signifying the relationship between the guilt anticipated and the behavioural intention. Anticipating guilt emotions may determine environmental intentions which will lead to getting engaged in pro-environmental behavioural acts (Muralidharan & Sheehan, 2017; Taufik & Venhoeven, 2018; Odou & Schill, 2020). Furthermore, assessing “Pro-environmental behaviour” as a variable illustrates whether purchase of organic food is a result of any environmental related activities or not, again giving an edge to the natural dimension. As a result, these variables underpin the reasons behind purchase of organic food within a natural environmental service-scape domain.

Until present, the phenomenon of service-scape inspires many academics to study it and review its possible dimensions in multiple sectors, to be able to gain knowledge that could be used and manipulated to give retailers a differentiation opportunity. This is done by providing high value consumer experiences that create beautiful memories, through designing stores environments that will eventually lead to desired outcomes (Petermans *et al.*, 2013; Roggeveen *et al.*, 2020). From a consumer’s point of view, an ideal service-scape would be one that is physically appealing, socially supportive and naturally pleasing. The service-scape should be considered as a marketing tool with important managerial implications on consumer behaviour. Stakeholders and marketers specifically need to realize not only the target consumer, but also their unfulfilled functional and emotional needs, how to satisfy these needs by identifying all the consumer touch points that he/she are exposed to during the shopping experience, in addition to engaging a vast array of service-scape dimensions. Consequently, service-scape should be under constant evaluation and observation by management and utilized as a main competitive advantage for businesses. Since improving the whole consumer experience should always be a priority for successful businesses (Accenture, 2015; Farah *et al.*, 2019).

Theoretically integrating the services-cape concept in this research significantly contributes to the body of knowledge of the consumer behaviour literature as a whole, and the literature of the organics more specifically. The service-scape model is usually applied to the service industry. However, very

limited application on tangible goods was observed in past literature. Thus, applying this model in a retail grocery store will help address this gap. Additionally, according to the researcher's knowledge, the service-scape dimensions were never applied in an environmental context. In other words, the different dimensions were never used to measure the environmental impact on the consumer purchase decision. Finally, merging the various dimensions of the service-scape (physical, social and natural) with other significant variables from different fundamental theories that affect consumer purchase decision toughens the research proposed framework. This, in turn, reinforces the research contribution to knowledge through giving more strength to the predicting power of the variables in the model and enhancing the understanding of the consumer's organic food behavioural experience from an environmental perspective.

2.2. Consumer Behaviour Theories within the Context of Environmental Psychology

With growing awareness of harmful modern society's lifestyles practices on the environment, pro-environment behavioural change has become a fundamental focus of applied environmental psychology. A proven theoretical framework is needed to understand and predict pro-environmental behaviours, so that eventually these behaviours could be developed and changed in the wanted direction (Linder *et al.*, 2022; Sawitri *et al.*, 2015). Since the 1980s, environmental psychology has made an imperative contribution to the literature. Researchers proposed and tested theories and models that aim to predict pro-environmental behaviour and practically identify entry points for interventions to change or move the respective behaviour in a pro-environmental direction. In broad terms, explaining human behaviour with all its complexity is a difficult task. It can be approached at different levels. It starts with the physiological aspects at one extreme and the social institutions at the other. Moreover, identifying the determinants of such behaviour is pivotal to understand actions and decisions (Baumgartner *et al.*, 2019; Klockner, 2013). This chapter goes through some of the main theories used in the environmental psychology literature. From a consumer behaviour perspective, it explains the fundamental literature used in the proposed conceptual model and argues why other theories were not suitable within this research domain. According to statistics, most of the studies in the literature used the Theory of Planned Behaviour (TPB) as a theoretical framework.

The second most common is the Norm Activation Theory (NAT). It is then followed by the Value Believe Norm theory (VBN).

2.3. Theory of Planned Behaviour

The research begins with the most famous theory that was designed to predict and explain human behaviour in specific contexts (i.e., environmental). This is the Theory of Planned Behaviour (Ajzen, 1985, 1987), which suggests that behaviour is proximally determined by the formation of intention. The Theory of Planned Behaviour is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). It is considered an important contribution in comparison with “Fishbein models” of the attitude–behaviour relationship. The theory assumes three conceptually independent determinants of intention (central factor in the theory). Firstly, the attitude towards behaviour, explained as the degree to which a person has a favorable or unfavorable behavioural belief to the behaviour of interest. The second predictor is a social factor subjective norm identified as the perceived social pressure and perceived expectations of relevant other people to perform or not to perform the behaviour of interest and the willingness to comply with that expectation. Thirdly, the perceived behavioural control, which is the perceived easy opportunity or difficulty of performing the behaviour of interest and which reflects past experiences as well as anticipated obstacles (Ajzen, 1985, 1987). Together this dynamic mix accounts for considerable variance in behaviour found to be supported by empirical evidence in a great range of behaviour across different populations (Choi & Johnson, 2019). Despite, being amongst the most influential, simple, logical and widely applied theories on the link between attitudes and behaviour (Fleşeriu *et al.*, 2020; Gronhoj *et al.*, 2013), still, it had limitations in dealing with behaviours over which people have incomplete volitional control.

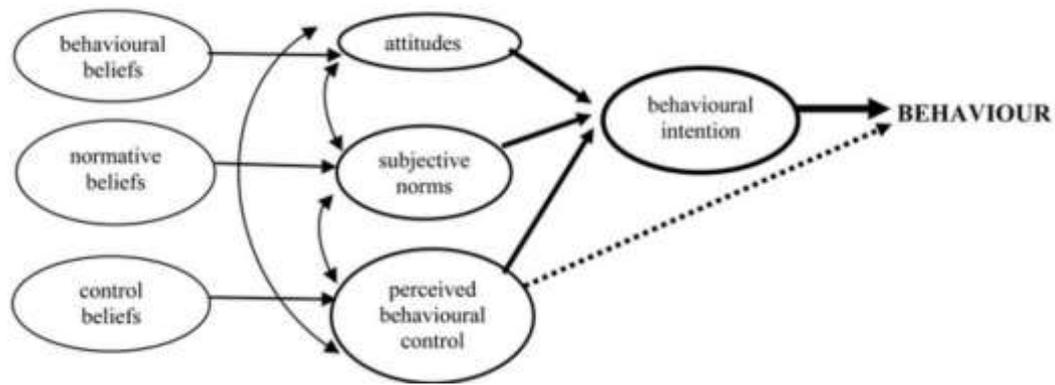


Figure (2.1): Theory of Planned Behaviour (Ajzen, 1991)

In reference to figure 2.1, the more favorable the attitude and subjective norms and the greater the perceived behavioural controls to a behaviour of interest; the stronger the intention and the more likely should be the performance of behaviour. It is noted that when behaviours are perceived to posing no control limitation, they can be strongly predicted from intentions (see Ajzen, 1988; Sheppard *et al.*, 1988). However, performance of most of the behaviours depends at least to a certain extent on non-motivational factors such as availability of necessary opportunities and resources (e.g., time, money, and skills). This represents the control over the behaviour. Therefore, perceived behavioural control plays a vital part in the theory. The relative importance of attitude, subjective norm, and perceived behavioural control in the prediction of intention varies across behaviours and situations. Thus, the assumption is that factors and ability interact in their effects on behavioural performance. Consequently, several studies demonstrated the theory's value in understanding and predicting pro-environmental behaviours when engaging in various activities (Bamberg, 2003; Yuriev *et al.*, 2020). This includes explaining pro-environmental behaviour in areas such as hotels and restaurants (Chen & Tung, 2014; Foroughi *et al.*, 2020), energy efficient products (Elf *et al.*, 2021; Ha & Janda, 2012), organic products (Faletar *et al.*, 2021; Zagata, 2012) and among different cultural contexts including Chinese and American (Chan & Lau, 2002; Tyers, 2021) and Greek and UK cultures (Brinia *et al.*, 2020; Kalafatis *et al.*, 1999) proving its applicability and robustness.

On the other hand, researchers criticized the Theory of Planned Behaviour by indicating the theory as it stands does not provide an acceptable prediction and

explanation for human behaviour and that it needs to be changed or extended. They argue that a broader theoretical approach is still needed for a better understanding of the role that the theory's constructs play in predicting, understanding and changing behaviour (Sniehotta *et al.*, 2014). Additionally, they claimed that the theory has outlived its usefulness and should retire so that theories (apparently newer) can be used (even though testing rival models should be welcomed). It has been suggested that the theory's constructs may not be sufficient to fully understand the individual's intentions and actions known as the "theory of planned behaviour sufficiency assumption" (Conner & Armitage, 1998). Despite evidence that other measures predict behaviour over and above the theory's measures like habit strength (Gardner *et al.*, 2011; Linder *et al.*, 2022) and anticipated regret and identity (He, 2019; Hurst & Sintov, 2022). A commonly voiced criticism is that the theory is too coherent exclusively focusing on rational reasoning excluding unconscious cognitive and affective processes and influences that are bias human judgments on behaviour (Sheeran *et al.*, 2013). It also emphasizes the controlled aspects of individual's information processing and decision making and is mainly concerned with self-regulatory conscious goal-oriented behaviours. Moreover, the theory was critiqued for not representing the impact of morality on environmental behaviour and the role of emotions (Klockner & Blobaum, 2010; Conner *et al.*, 2013).

In the current research, most of the above criticized points were well-thought-out and deliberated. All three antecedents of the theory were to be theoretically considered in the proposed conceptual model. Each antecedent is a different concept that has a stand in predictable relations to intentions and behaviour which plays an important role in social and behavioural research. The Theory of Planned Behaviour is mistakenly understood, as a theory arguing that humans are impassionate, rational individuals who use all available information unbiased to reach a decision. In reality, the theory is much more complex than that, as there is no assumption that beliefs (behavioural, normative and control) are made out in a rational, unbiased fashion or accurately representing reality. On the contrary, beliefs reflect information, which is often inaccurate, incomplete, resting on wrong irrational premises or biased by self-serving motives (fear, anger and other emotions). Clearly this is a far cry from a rational actor and only the behaviour is named planned as attitudes, subjective norms and the perceptions of behavioural

control automatically and consistently follow beliefs (Geraerts *et al.*, 2008). The Theory of Planned Behaviour showed consistent prediction of behaviour. Parallel, to an increase in the supporting evidence has been observed in the literature (Kumar, 2019; Yuriev *et al.*, 2020).

Different scholars attempted to add or alter relevant variables, to enhance depth and broaden the path of variables and to improve the predictive power of the framework in diverse domains. While the researcher was going through the literature, many variables came to the surface as relevant to the investigated topic. Some examples of the variables that proved their significance in previous studies are: the role of past behaviour, habit and their strength, environmental awareness and concern, environmental knowledge, self-identity and place identity (Hassandra *et al.*, 2011; Kor and Mullan, 2011; Norman and Cooper, 2011). One cannot examine everything in a single study where at the end each one has its boundaries and limitations. As organic food purchasing in general and as a pro-environmental behaviour in specific is considered a new activity in the Egyptian markets, a lot of the variables were inapplicable due to the context. The unavailability of any previous organic store purchase in Egypt, the absence of organic purchase habits and hence, the lack of loyalty makes it difficult to assess the impact of such variables. Moreover, since the link between the purchase of organic food and its environmental consequences is weak as a result of the confusion of the organic concept and the unclear status of pro-environmental behaviours. Therefore, other variables were illogical to be considered at such an early stage of research. Consequently, the chosen predictors are seen as an initial trial to understanding that goes along with the environmental awareness and knowledge levels in the Middle Eastern region. The research model helps explain the relationship between the pro-environmental behaviour with the daily organic food purchase behavioural decisions. As this research is targeted towards examining how pro-environmental behaviour is predicted and not changed, the decided-on variables were seen central to understanding the behaviour more than other that were suitable more for changing the behaviour in a more sustainable direction. Examining the additional variables could work best as a next step towards behavioural change.

Ajzen and Sheikh's study (2013) explained the addition of anticipated affect and its great effect on improving intention's prediction. Affect and emotions can have indirect effects on intentions and behaviour in two ways. First, they can serve as background factors that influence beliefs. Second, affective states can help select beliefs that are readily accessible in the memory. It can also strengthen and evaluate associations in a given situation. Besides, it is often suggested that it affects influence behaviour in a more direct fashion (McKee *et al.*, 2003; Soorani & Ahmadvand, 2019). In addition, authors like Liu *et al.*, (2020) were consistent that within certain contexts, personal feelings and moral obligation or responsibility to perform or not to perform a certain behaviour, should be put in consideration as to increase the model's predictive power.

Generally, the Theory of Planned Behaviour is open to the inclusion of additional predictors. Given that, it can be shown that these predictors capture a significant proportion of the variance in intention or behaviour after the theory's current variables have been assessed. This is the reason why the theory in the conceptual model was extended evaluating more antecedents like self-transcendence values and anticipated guilt which are explained later in the chapter. Intentions and perceived behavioural control are useful predictors of behaviour. However, only additional variables can determine whether these constructs are enough to account for all or most of the variance in behaviour. Therefore, store atmospheric was added as a construct to the model in this research to provide a better understanding to the behaviour, especially that it represents a vital dimension of the service-scape phenomena that was discussed earlier.

The key arguments that were stated related to the theory, as like Sniehotta *et al.*'s (2014) work, are lacking evidence. Contrary to the claims of retirement, the Theory of Planned Behaviour is still valid and provides a useful foundation in the pursuit of a better understanding of human behaviour. It incorporates and defines some central concepts in a way that permits the prediction and understanding of particular behaviours in specified contexts within the social and behavioural sciences. This is considered one of the main contributions of this research. This study could be considered as a first step in the behaviour changing process, as the research itself does not focus on how to change behaviour into a more pro-

environmental one. However, it tries to understand and predict such behaviour, so that it could be utilized in further research implementing effective interventions. Furthermore, one of the main approaches to changing behaviour exploited correlational studies to identify the key determinants of behavioural intentions and actions, then targeting these determinants with intervention. Each construct in the theory reveals a different aspect of the behaviour serving as a point of attack in attempts of change (Ajzen & Schmidt, 2020). Therefore, capitalizing on the contributions that the Theory of Planned Behaviour has made - and continues to make - is of importance within this research domain.

It should be noted that the Theory of Planned Behaviour is not a theory of behaviour change; instead, it is meant to help understand and predict intentions and behaviour. Changing intentions and behaviours is not an easy task as, according to Bandura (2007), it is often difficult for people to change their behaviour as this may conflict with money, time, comfort and convenience presenting an ethical dilemma for people in their daily living habits and their consumer behaviour. The theory is well supported in investigating pro-environmental behaviour in a wide range of fields. As conceptualized by Ajzen (1985, 1991) behavioural intentions are predicted by examining the three core antecedents. Furthermore, he distinguished three kinds of salient beliefs, each related to one of the core constructs. Behavioural beliefs are related to attitudes, normative beliefs are related to subjective norms and control beliefs related to behavioural control. These more specific beliefs underpin the main constructs of the TPB and research into environmental behaviour based upon studying them is rare. It is true that considering these beliefs may provide deeper indication for the variance in the intention. But they are more beneficial in explaining the reasons for the variance by determining an individual's intentions in a given context. Thus, offering identifications to interventions targeting potential behaviour change. Accordingly, for reasons of simplicity and direction the researcher decided on assessing just the core antecedents of the theory. It was found that when the attitudes and norms are precise and well defined (including specifying the context of the behaviour), intentions are predicted and reliable enough to predict behaviour. In more sense, as the attitudes and social norms in the study are relevant to the target population as in towards the purchase of organic food. So, the intention towards organic food is assumed to be successful at predicting the organic food

purchase behaviour. In sum, the theory constructs are well supported empirically as a theoretical foundation to investigate pro-environmental behaviours providing important practical and empirical contributions to the research literature. Following the Theory of Planned Behaviour are the Norm Activation Theory and the Value Belief Norm theory. Therefore, discussing both theories briefly is essential for this research. Norm Activation Theory and Value Belief Norm theory are closely related, with the latter building on the main assumptions of the first and extending it.

2.4. Norm Activation Model

In contrast to the Theory of Planned Behaviour which is basically a general behaviour theory, the Norm Activation Theory which was originally proposed in the late 1960s and then some refinements were made to it in the 1970s, focusing on sacrificing a person's own interest for the well-being of others (Schwartz, 1977). It was initially developed for a specific type of helping behaviour "altruism" (Schwartz & David, 1976; Schwartz & Howard, 1980; Zuckerman & Reis, 1978). The theory is built on Schwartz and Howard (1981) who were interested in predicting conditions under which people are willing to help other people if they feel morally obliged to in a given situation. They referred to the basic assumption of a "personal norm" which is defined as a reflection of the personal value system in a given situation that has to be activated to become a determinant of behaviour. According to figure 2.2, the model is a theory of intervention behaviours which takes place during the event. The rationality of Schwartz's theory comes from the intensity of two sides. The first is the awareness of consequences and acceptance of responsibility where, the second is the content of the individual's norms.

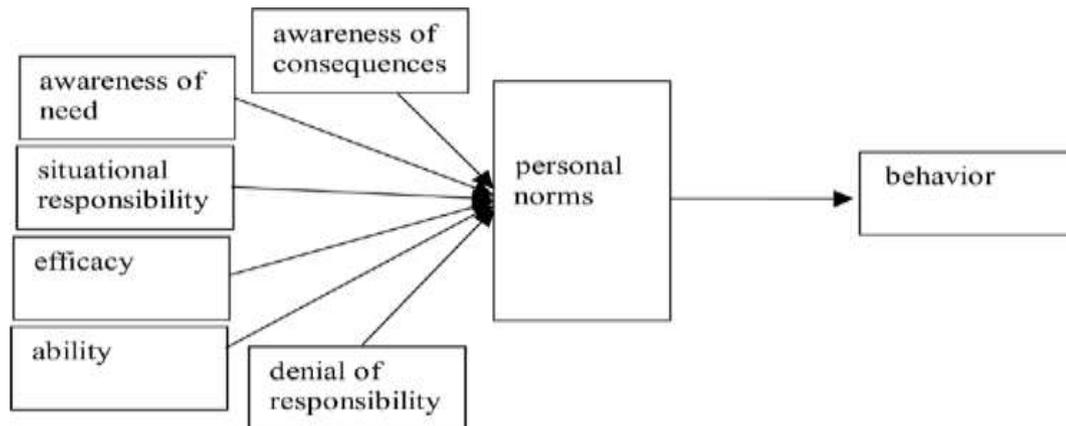


Figure (2.2): Norm Activation Model (Schwartz, 1977)

In the mid-1980s, the theory had started examining pro-environmental behaviour with several successful interpretations within the environmental psychological research (Klockner, 2013 & Sawitri *et al.*, 2014). It explained altruistic behaviours where pro-environmental behaviours belong to an altruistic pro-social moral domain constituting what is right and wrong according to the Norm Activation Theory (Thøgersen, 1996; Thøgersen, 1999). Many researchers showed promising results when it comes to the influence of the theory's variables on pro-environmental behavior, e.g., Yuriev *et al.*, (2020). However, its application is not self-evident as the theory focuses merely on moral drivers of pro-environmental behaviour deriving from altruistic and moral beliefs. Hence, it is unlike the Theory of Planned Behaviour that captures the non-moral influences to behaviour.

2.5. The Value Belief Norm theory

Stern's Value Belief Norm Theory (2000) is an extended attempt to relate the Norm Activation Theory to findings about general values, environmental beliefs and behaviour. Stern and colleagues (Stern, 2000; Stern, Dietz, Abel, Guagnano, & Kalof, 1999; Stern, Dietz, & Guagnano, 1995; Stern, Dietz, Kalof, *et al.*, 1995) have applied a version of Schwartz's (1977) Moral Norm Activation Theory to develop and test the Value Belief Norm theory of environmentalism. It served as a conceptual framework explaining environmentally significant individual behaviour. Based on figure 2.3, pro-social behaviour is stimulated by activating norms of helping which stems directly from personal norms. This is based on the previous theory with the addition that these norms are to be activated by awareness of

consequences. Furthermore, it is a prerequisite of an activated ascription of responsibility. Additionally, the awareness of consequences relates to a general ecological worldview measured by the New Environmental Paradigm (NEP) (Dunlap *et al.*, 2000). However, this paradigm is usually used to measure general environmental attitudes, in respect to the theory to link value orientations and personal norms. The Value Belief Norm theory has been applied to the environmental domain and received some empirical support (Esfandiar *et al.*, 2020; Gkargkavouzi *et al.*, 2019; Liu *et al.*, 2018), but it assumes a strictly rigid linear chain of variables focusing strongly on personal norms as the integrative variable. It resulted in the same problems as with the Norm Activation Theory within this research context. The Value Belief Norm theory assumes pro-environmental behaviours stem from acceptance of precise personal values, from beliefs that those values are under threat, and from beliefs that individual's action can help ease the threat and restore the values (Sawitri *et al.*, 2014).

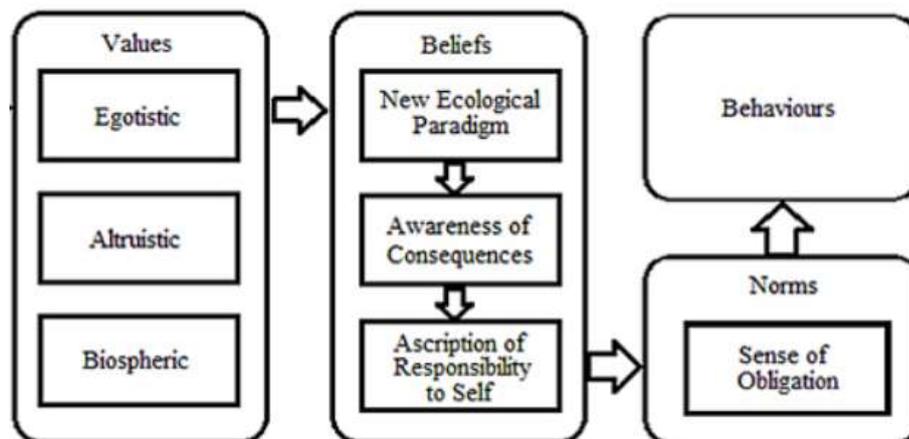


Figure (2.3): The Value Belief Norm theory (Stern, 2000; Fraiser, 2016)

It has been previously demonstrated that personal norms add to explaining variation in environmental intentions above and beyond the variables of the Theory of Planned Behaviour variables. Still the Value Belief Norm theory and the Norm Activation Theory lack mediating variables between personal norms and behaviour assuming that the feeling of moral obligation is the only determinant of the intention. This shows evidence that pro-environmental behaviour can be traced back to basic value orientations even if the distance between such values and behaviour is bridged by a number of other variables. This concludes the robustness of the theories

and that all three theories are relevant to behaving pro-environmentally. Still after this comparison, the variables of the Theory of Planned Behaviour are seen more proximal to behaviour and allow examining the influence of personal determinants and social surroundings as well as non-volitional determinants on intention and behaviour, as compared to the variables of the Value Belief Norm theory and the Norm Activation Theory (Han, 2021; Klockner, 2013). Accordingly, the Theory of Planned Behaviour was chosen as the core theory for this study.

2.6. Social Cognitive Theory

In 1986, Albert Bandura expanded and renamed his Social Learning Theory (1960s) to become Social Cognitive Theory (SCT). He changed the name to highlight the main role cognition plays in encoding and performing behaviours (self-efficacy was added when the theory evolved). In reference to figure 2.4, the theory explains human behaviour where Bandura (1982, 1986, 2006, and 2008) believed that self-regulation mechanism is driven by two forces; social sanction and internalized self-sanction. The theory aimed to explain how individuals regulate and maintain their behaviour through control to achieve goal-directed behaviour and through the theory's central concept which is the "reciprocal determinism". It was argued that the self does not originate from the abstract concept of social reality, but is the dynamic reciprocal result of the interaction of personal, behavioural and environmental influences. The goals that an individual develops, the actions taken to attain them, the perseverance in the pursuit of goals and the thoughts and feelings experienced during execution are affected by self-efficacy beliefs (Voica *et al.*, 2020)

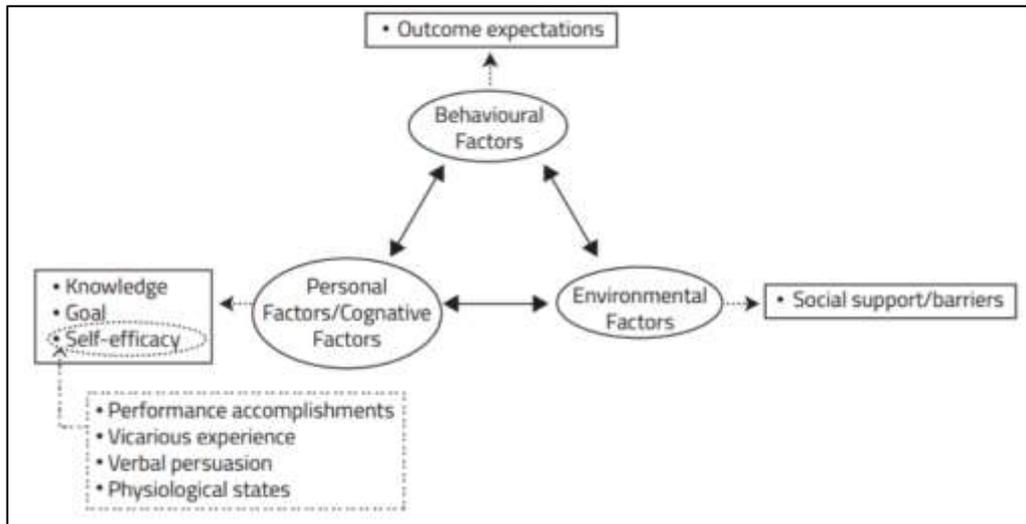


Figure (2.4): Social Cognitive Theory (Bandura, 1986; Chin and Mansori, 2018)

From an environmental psychology perspective, self-efficacy is an individual’s perception of his/her ability to make positive change regarding the environment (Schutte & Bhullar, 2017). The theory clarifies human functioning in terms of a model of triadic reciprocity. In assessing personal determinants, the idea of personal agency is central to the social-cognitive theory by highlighting “personal agency” as the individual’s ability to deliberately choose, execute and manage his/her actions to symbolize expected outcomes. Consequently, building on this socio-cognitive perspective, individuals are not only reactive to external influences, but they are also proactive and able to self-regulate. From an environmental psychology perspective, Čapienė *et al.*, (2021) debated that pro-environmental behaviour is a special type of pro-social behaviour and claims the existence of pro-social agency where individuals tend to engage in behaviour of sharing, helping, or looking after others only if they feel they are able to perform and manage the emotions that this behaviour generates. The theory proposes that self-efficacy fosters positive outcome expectations that lead to goals that in turn lead to pro-environmental actions.

The use of Social Cognitive Theory to explain pro-environmental behaviour is scarce and limited in the literature. Tabarnero and Hernandez (2011) and Yoong *et al.*, (2018), among few others, addressed the relationship between environmental attitudes, behaviours and perceived self-efficacy or involved outcome expectations. This could be the result of the theory proposing the issue of pro-environmental

behaviour change through modifying and transforming environmental beliefs and creating new social norms that motivate desired behaviours. Furthermore, the Social Cognitive Theory drives attention away from the individual and more towards the social practice itself. In other words, the theory pushes the individual from the central focus to being the carrier agent performing the social practice (Hargreaves, 2011). Currently, the researcher is examining pro-environmental behaviour upon understanding the antecedents that affects an individual's organic food purchase decision. Therefore, the focus is on studying individuals' attitudes, intentions and behavioural choices and not on how social practices are formed, maintained and challenged to encourage more pro-environmental practices. In this view, the Social Cognitive Theory was considered to be addressing a series of different research questions than the ones addressed here. So, it is not seen as suitable as the Theory of Planned Behaviour due to the issue of behavioural change versus behavioural prediction. Also, the Social Cognitive Theory focuses on the self-efficacy construct, which in the Theory of Planned Behaviour is represented by the perceived behavioural control construct but put in a more general framework. Such construct in the Theory of Planned Behaviour respects the relations among attitudes, intentions and behaviour showing that individual's behaviour is strongly influenced by the confidence and the ability to perform it. On the contrary, the Social Cognitive Theory is loosely organized which means that the extent of influence on the behaviour from each variable is blurred. Lastly, the theory assumes that changes in the environment will automatically lead to changes in the behaviour which is not always the case.

2.7. The Personality Trait Theory

Pro-environmental behaviours result from considerable individual differences that could be partially explained through the basic Personality Trait Theory. The theory showed persistent evidence about how early personality affects outcomes later in life. It does not just describe behaviour but traits and causes of behaviour (Block & Block, 2006; Brick & Lewis, 2016; Kressel & Uleman 2010).

BIG FIVE Traits Model Theory



Figure (2.5): Personality Trait Theory “Big Five” (Basu, 2013)

Based on literature studies on personality structure and assessment along the broad models of environmental behaviour (Stern, 2000), there was an emergence of a descriptive theory of five broad personality dimensions, as shown in figure (2.5). These dimensions describe human personality referred to as the “Big Five” (Digman, 1990; Goldberg, 1993; John and Srivastava, 1999; McCrae & Costa, 1987; Terracciano, 2005) are as follows:

- Openness: attributes of creativity, aesthetic variety, and intellectual drives.
- Extraversion: attributes of assertiveness, outgoing nature, and excitement.
- Neuroticism: tendency of experiencing negative emotions
- Conscientiousness: attributes of reliability, self-discipline and consideration
- Agreeableness: socially accommodating attributes.

According to the “Big Five”, traits have causal effects on life outcomes that lead to characteristic adaptations. Additionally, these traits describe the functional level of the underlying psychological processes which generate emotional, cognitive and behavioural states. Consequently, it can have effects on people’s behaviours whether from personal factors (such as childhood experience, education, place attachment, age, and gender), social factors (such as urban–rural, religion, social class and cultural differences) or/and the combination of both (DeYoung, 2015; Gifford & Nilsson 2014; Pavalache-Ilie & Cazan, 2018).

Recently, there are patterns of results in the literature that indicate that the “Big Five” traits are associated with environmentalism like Soutter *et al.*, (2020), Shen *et al.*, (2019), and Verma *et al.*, (2017). However, the results are not very consistent and causal relations are not inferred. For example, openness showed the most vigorous links to behaving pro-environmentally (Brick & Lewis 2016; Hilbig *et al.*, 2012). The other personality traits revealed mixed results (Brick and Lewis, 2016; Hilbig *et al.*, 2013). Such findings could be an initial step for the explanation of how traits could be causal determinants of behaving pro-environmentally (Pavalache & Cazan, 2018). Still the effects of personality on behaviour may be expressed differently based on the moderation of cultural and social context making it unwise to generalize to all cultures. In line with this logic, it is unclear which traits are reliably associated with pro-environmental behaviour. Similarly, the contradicting relationships of traits with behaviour in situations and their poor predictive power, led theorists to claim that the personality trait theory (as a broad behaviour disposition) is weak and flawed, even with the remedy of aggregating specific behaviour across occasions, situations, and forms of action. Thus, the aggregation principal does not explain behavioural variability across situations, nor does it permit prediction of a specific behaviour in a given situation (Brick & Lewis, 2016). These observations offer more suitable theories for this research domain, where values are viewed as a more conscious reflection of individual’s behaviour across situations. Accordingly, personal values and value theories have to be incorporated in the research study as stable individual self-factors affecting a wide range of pro-environmental behaviour across various contexts and situations (de Groot & Thøgersen, 2018; Gatersleben *et al.*, 2014). Moreover, most of the studies using the Theory of Planned Behaviour show that the model variables are strongly affected by general and pro-environmental values which stresses on the importance of such variable (Ateş, 2020). Consequently, it seems valuable to examine the effect of values when understanding the organic food purchase decision from a pro-environmental perspective as it will offer a broader range of insights.

Roccas *et al.*, (2002) are from the first scholars to research the linkage between values and personalities traits. They argue that traits refer to what people are like, whereas values refer to what people consider important. Moreover, they proposed two possible mechanisms where from one angle individuals are thought to

behave or modify their behaviour in ways that are consistent and in line with their values as overarching life goals. From an alternative angle, individuals shape and/or adjust their values when they interact with the environment which is expressed in characteristic adaptations to social and cultural contexts and behaving in a particular way to reducing discrepancies between their values and behaviour. Accordingly, one of the interesting unanswered questions until present is the extent to which correlations between values and personality maybe shaped by contextual factors. Pro-environmental behaviour must be guided by values.

Rokeach (1973) argued that it is advantageous to see people as arrangements of values rather than having fixed traits. The new developments within the environmental psychology and other related fields have produced and are still producing a number of insights about values in relation to behaviour that is worth exploring for understanding, predicting and later promoting pro-environmental behaviour and thereby sustainable development. Merging the value with the driving forces of the Theory of Planned Behaviour will be of great benefit to the conceptual model. This is because; the predication power of the model will increase since it will gather the rational considerations from the theory variables and the moral force from the value systems (Kruse *et al.*, 2019; Ruepert *et al.*, 2016). Accordingly, this will support a better understanding of the consumer's organic food purchase as a pro-environmental activity. This study will expand the environmental awareness and link it to the consequences of daily purchase behavioural decisions. Since; integrating different theories and constructs into a comprehensive conceptual model has rarely been made. Moreover, most studies focus on the direct relationship between constructs and not the moderating role or indirect effect between constructs (Ates, 2020). Therefore, in regard to this, merging the Theory of Planned Behaviour and personal values is of great importance for examining the indirect relationships among the constructs which provide in-depth insights about the behaviour under study.

2.8. Schwartz Refined Basic Human Values

To identify an individual's priority system of values by linking abstract values to specific feelings of obligation in particular situations is probably an impossible task (Schwartz, 1977). Therefore, during the past 40 years Schwartz was trying to make the impossible task possible by addressing theoretical and empirical approaches to values (Schwartz, 2010).



Figure (2.6): Schwartz Refined Basic Human Values (2012)

The researcher wanted to exploit a more general measure of universal values and found no better than Schwartz's (1992) theory of basic human values. It is considered one of the most frequently used frameworks for studying values in cross-cultural, personality and developmental psychology. Values serve as socially acceptable and culturally defined ways of expressing needs measured at an individual-level construct. Additionally, what differentiates one value from another is the goal it expresses (Hansen *et al.*, 2018; Hilton & Piliavin, 2004). Schwartz firstly proposed a theory of ten broadly basic values (expressing different motivation) that people in all cultures are likely to recognize (approximately 70 cultures around the world). Based on cross-cultural research involving over 41 countries structured on relations of conflict and compatibility deriving from the fact that actions in quest of any value have consequences that oppose some values but

are congruent with others in a single act (Schwartz, 2010). Table (2.1) represents the ten distinct values.

Table (2.1): Ten Distinct Values

Value	Definition
Universalism	Understanding, appreciation, tolerance, and protection regarding the welfare of all people and of nature.
Benevolence	Preserving and enhancing the welfare of people with whom one is in frequent personal contact.
Conformity	Restraint of actions, inclinations and impulses likely to upset or harm others and to violate social expectations or norms.
Tradition	Respect, commitment and acceptance of the customs and ideas provided by one's culture or religion
Security	Safety, harmony, and stability of society, of relationships and of self.
Power	Social status and prestige, control or dominance over people and resources.
Achievement	Personal success through demonstrating competence according to social standard.
Hedonism	Pleasure or sensuous gratification for oneself.
Stimulation	Excitement, novelty and challenge in life) and self-direction (independent thought and action in choosing, creating and exploring.

Based on the theory expressed in figure (2.6), the values are in a circular fashion forming a circular motivational continuum in which adjacent values on the circle are compatible, positively correlated, have similar motivational meanings and can be pursued simultaneously through the same behaviour. In contrast, opposite or more distant values on the circle express conflicting and more antagonistic motivations and are negatively correlated. Additionally, Schwartz proposed grouping these values into four higher-order values representing the four sectors of the value circle, which form two bipolar dimensions covering the ten basic values. The first dimension is self-transcendence values (universalism and benevolence)

versus self-enhancement values (power, achievement and hedonism) and the second dimension is openness to change values (hedonism, stimulation and self-direction) versus conservation values (tradition, conformity and security). Schwartz's values have been found to predict a diverse range of behaviours (Ahmad *et al.*, 2020) including environmental behaviour (Bouman *et al.*, 2020). Moreover, Schwartz and colleagues (2012) refined the basic values theory where greater emphasis was placed on the continuum of values as shown in figure (3.6). They proposed that if the values truly form a continuum, then there are many possible ways to divide the circle. Consequently, while refining the theory, Schwartz *et al.* (2012) partitioned the same motivational continuum into 19 more narrowly defined value facets, viewed as sub-division of the original values which in turn form the four higher-order values (conservation, openness to change, self-enhancement, and self-transcendence). So specifically, the more narrowly defined values in the refined version of the value theory are sub-dimensions of the more broadly defined values postulated in the original theory. According to Ciecuch *et al.*, (2014) among others researchers, a third-order Configural Frequency Analysis model was tested. The results showed that benevolence-dependability and benevolence-caring were associated with benevolence. Universalism-concern, universalism-nature and universalism-tolerance loaded on Universalism. Benevolence and universalism loaded on self-transcendence, meaning that the obtained results provide support for the hierarchical structure of values defined by the refined theory.

It is important to note that in order to use a value theory to predict behaviours; values need to be activated - if at some level of awareness, they are experienced as relevant in the context - The more accessible the value, the more likely it is to be activated (i Vilaró, 2019; Verplanken & Holland, 2002). Schwartz (1977) applied four steps to activate basic values. First, the conscious awareness of need followed by the awareness of feasible actions that can relieve need. Then, perceiving oneself as able to help and last is sensing some responsibility to become involved. Once the steps are done and values are activated, the behaviour is affected by influencing the direction of the motivation. Subsequently, differences in value importance affect which values (if any) are activated in the first place.

Values define the parameters of behaviour, operating as guiding mechanisms so that they serve to structure experiences. In this sense, similar to several social psychological concepts measuring values is imperfect. Consequently, the researcher decided that the investigation will be done using the hierarchical structure of basic human values of Schwartz *et al.*'s (2012). The Refined Value Theory suggests that there is a universal organization of human motive grounded on the universal requirements of human existence of individuals as biological organisms, coordinated social interaction and group survival and welfare. Schwartz clearly drew on the original empirical work of Rokeach's (1967, 1973) that influenced the Schwartz Value Survey (SVS) with one exception of asking the respondents to rate items instead of ranking them. According to Rokeach, it was fundamental that there are differences between instrumental values (means) and terminal values (ends). However, Schwartz found no empirical evidence for these differences where he believed that the same values can show motivations for both means and ends and that was the reason for the different approaches to values measurement. Schwartz (1994) justified the conceptual superiority of rating (compared to forced ranking choices recommended by Rokeach) as it has more useful statistical properties, allows the usage of longer lists of values and not forces respondents to discriminate among values. He also claimed that rating is more accurate than ranking in capturing how values enter into situations of behavioural choice as opposed to ranking values, which is difficult and challenging especially when the list is lengthy. Finally, as the theory was refined also the measurement instrument was better developed into the Personal Values Questionnaire (PVQ). It contained less-abstract items that are more accessible to a wider population where responses to it replicate the basic model of value relations (Schwartz *et al.*, 2001).

Exploring such social psychological processes is a fruitful attempt for the researcher to understand the values approach that motivates pro-environmental behaviour by encompassing the various forces motivating such behaviours. Indeed, the values and their interrelations may point the way toward a unifying theory of human motivation. Moreover, values work in correlation with other factors but not the sole factor behind acting pro-environmentally (Ahn *et al.*, 2020; Bilsky & Schwartz, 2008). Consequently, evaluating model from a holistic perspective should

provide a grounded understanding to relationship between organic food purchasing and pro-environmental behaving.

2.9. The Goal Framing Theory

The Goal-framing theory (Lindenberg 2001a, 2001b, 2006, 2008) deals with the power of goals to manage cognitive and motivational processes through focusing on three overarching goals that have evolved for human beings as expressed in figure (2.7):

- Hedonic goals: goals to improve the way one feels right now.
- Gain goals: goals to guard and improve one's resources.
- Normative goals: goals to act appropriately for the group.

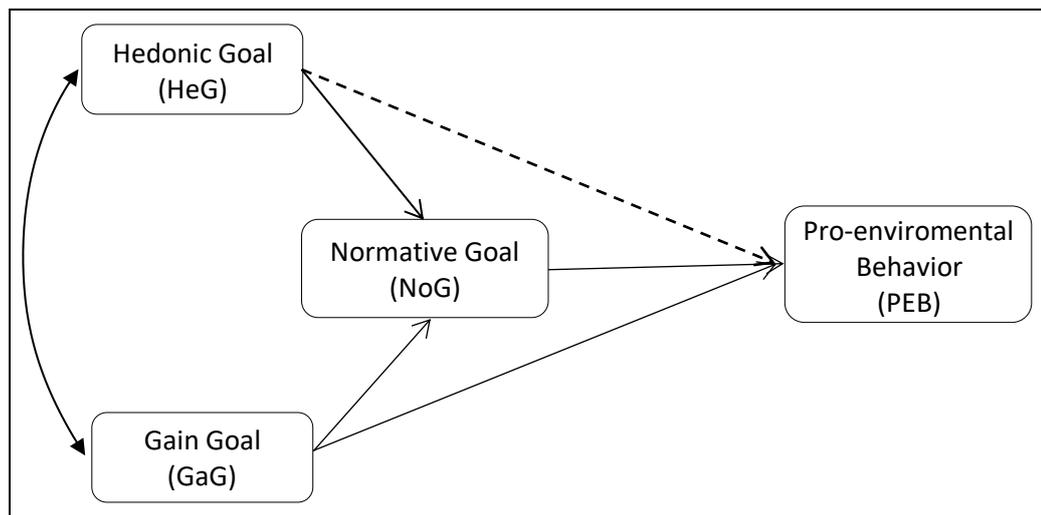


Figure (2.7): The Goal Framing Theory (Lindenberg, 2001)

One goal is always leading in the cognitive foreground and has the strongest influence on selective attention, accessibility of knowledge, evaluations and so on. This is usually referred to as the goal-frame. The other two goals are in the background with a weaker influence. Usually there is more than only one goal active at a given point of time and behaviour mostly results from multiple goals that may (or may not) be compatible. However, one goal will dominate the framing process (Frederick *et al.*, 2002). All three overarching goals are influential, but which of the three goals is focal, depends on internal and external cues. These cues automatically

trigger (not choose) the goal giving it more strength. The theory is based on the evidence that human perception, thinking and deciding are organized in a modular way. The main idea is that goals govern (frame) what people attend to, which cognitive knowledge become accessible, how people evaluate diverse aspects of the situation and what alternatives considered. Goals become focal as an automatic reaction to signals, without debate (Bargh *et al.*, 2001). By being focal these goals create modularity by affecting attention, information sensitivity, information neglecting, and knowledge and concepts activation at a given moment (Ekasari, 2021).

The Goal Framing Theory is applicable on norm-guided behaviour focusing on three main blocks: pro-environmental values, demonstrated support of pro-environmental norms and support of self-regulation. That being said, stable pro-environmental behaviour depends on a stable normative goal-frame that resists being pushed into the background by Hedonic or Gain goals in situations that call for this kind of behaviour. Therefore, boosting pro-environmental behaviour requires the dedication of the full range of chronic measures to the stability of the normative goal-frame in the territory of such behavioural situations. In the theory, self-regulatory capacity is a principal concept where there are forms of self-regulation that led to moral hypocrisy under certain favorable circumstances. In such cases, Hedonic and/or Gain goals in the background will move the normative goal-frame towards self-serving outcomes if they are not adequately supported. Despite that the normative goal-frame can be boosted, however in real life due to the widespread of uncertainty and sudden changes, the goal-frame could be very easily weakened and pushed aside by cues and situational factors that favor hedonic or gain goals in the background. This results in making the prediction of the Goal Framing Theory as a whole very vulnerable. In other words, conformity to pro-environmental norms is unwarranted especially with individuals using the abstractness of social norms and the inclusiveness of ego-transcendent values. This creates a moral twist that can rationalize hedonic and gain-oriented behaviour as moral behaviour making it subject to the danger of moral hypocrisy within the environmental sphere (Lindenberg & Steg, 2013).

Precisely the more abstract the norms are, the more difficult it is to know what behaviour would be or would not be appropriate. There is a need of individual's intelligent effort to translate the abstract norm to a concrete decision in a given situation and that is why norms are known as "Smart Norms" (Lindenberg & Steg, 2007). Parallel, Fishbein and Ajzen behavioural intentions could be conceptualized as goals intentions for performing a specified behaviour. From the goal perspective, the commitment to these goals is determined by attitudes, subjective norms and control beliefs, where the implementation of the behaviour is based on the strength of the behavioural intention (or goal). Therefore, the Theory of Planned Behaviour clearly qualifies as goal theories focused on determinants of goal pursuit (Gollwitzer & Oettingen, 2015). By the same token, it was discovered that the Theory of Planned Behaviour is far more successful in predicting and explaining behavioural choice (Bamberg & Schmidt, 2003; Qi & Ploeger, 2019) which better fit the scope of the current research as compared to the Goal Framing Theory among other theories.

To conclude, it is not possible to predict pro-environmental behaviour using a single theory. Therefore, it was important to understand the applicability of different consumer behaviour theories on organic food purchase to be able to choose the combination that best fits the purpose of the research. For the scope of this research, the following theories were chosen for understanding the antecedents that best predict organic food purchase as a result of pro-environmental behaviour: The Theory of Planned Behaviour, Schwartz's Refined Value Theory and the service-scape model. This integrative framework enables the researcher to identify and analyze the best antecedes behind the consumer's organic food decision making under the pro-environmental behaviour umbrella.

The choice of the Theory of Planned Behaviour was based on the need of a valuable understanding and predication of the complex human behaviour. The theory acts as a focal pillar to better predict organic food purchase decisions resulting from behaving in a pro-environmental manner. The theory offers an opportunity of add and/or alter variables to better fit the scope of each research study. Accordingly, the researcher altered the social norms construct and added a few more antecedents (anticipated guilt, self-transcendence values and store's

atmospherics) to enhance the depth by accounting for more variance, thus improving the predictive power of the model mainly from a pro-environmental perspective. The refined value theory is the most universal, diverse and frequently used one when it comes to personal values. Its moderation role in the present study fitted perfectly with understanding the complicated psychological processes involved in predicting organic food purchase/pro-environmental behaviour. The researcher took into consideration Bitner's (1992) suggestion and decided to merge the service-scape phenomena with other variables to fill gaps in the literature and enrich the research by fruitful insights regarding the consumer's holistic intellectual cognitive, sensory affective, emotional, social and physical aspects in an emerging industry. Applying the service-scape in such an organic retail industry was not explored enough compared to the service industry. So, studying the consumers in his/ her own shopping grocery environment will lead to better understandings of the model antecedents.

2.10. The Conceptual and Theoretical Framework

The research proposed conceptual model is built on extending the Theory of Planned Behaviour while encompassing the other important elements to behaving in efforts to understand the pro-environmental behaviour from an intent orientation through investigating the consumer's organic food decision making. It was realized from past literature that behaving pro-environmentally results from different reasons whether environmental or non-environmental (Kaaronen & Strelkovskii, 2020). Furthermore, various scholars argued that buying organic food could reflect pro-environmental behaviour (Alshurideh *et al.*, 2019; Yadav and Pathak, 2016). Still, there are a lot of gaps in the literature that need to be tackled beside the attitude – intention – behaviour gap that still exists (Chekima *et al.*, 2017; Mukendi *et al.*, 2020). In the literature, the reasons for buying organic food are varied and non-comparable. Some authors suggested that the main reasons are taste and quality (Ali, 2021; Kareklas *et al.*, 2014) while, others argued that it is done for health reasons (Rana & Paul, 2020; Zakowska-Biemans, 2011). Moreover, some consumers believe that buying organic food is a sign of modernization and luxurious lifestyles (Gifford & Nilsson, 2014; Ham *et al.*, 2018; Tariq *et al.*, 2019). Likewise, Ismael & Ploeger (2020), stated that buying organic food adds to the consumer's pleasure and wellbeing. Also, organic food purchase indicates a status symbol for some people making them a trend in elite societies and presenting their purchasing powers

(Fleşeriu *et al.*, 2020). Furthermore, it is suggested that food safety is an important reason to buying organic food (Tandon *et al.*, 2020). Therefore, the section discusses the psychological, social and situational constructs affecting the organic food purchase decision as a result of pro-environmental behaviour.

The consumer food choice is the outcome of a complex and constantly evolving process affected by diverse factors whether food related and/or non-food related (Da Liang, 2016; Stubbs *et al.*, 2018). The debate is over the importance and the changing nature of these factors when making purchase decisions (Delicato *et al.*, 2019). Some of the factors affecting the food purchasing behaviour are taste, personal values, convince, cost, healthiness, food quality labels, geographic source and nutritional information and knowledge (Dall'Asta *et al.*, 2020; Tam *et al.*, 2017). Moreover, the linkage between the consumer behaviour and the food industry is very important nowadays. In light of this, the researcher begins the literature review by giving a brief about the food purchasing process in general. This section is seen vital as it is essential to understand the food behaviour to be able to understand the mindset of the consumer's organic food purchasing behaviour and more specifically its relation to pro-environmental behaviour.

Food purchasing and consumption possesses indicate deep meanings and values which denote cultural and individual identities (Bai *et al.*, 2019). Likewise, Kotler stated that you have to sell to the pocket, the heart and the soul (Delicato *et al.*, 2019). Numerous studies investigated consumer's food purchase but with the changing lifestyles the picture is still vague (Delicato *et al.*, 2019). The emergence of a lot of new lifestyles affected the food industry massively. Modern lifestyles led to new efficient ways to food purchasing in terms of time (Kumar *et al.*, 2021). As a result, an observed growth was realized with convenience food purchases and more recently in online sales. Moreover, the lifestyle that is greatly booming (mainly in developed countries) is the veganism for the sake of animal welfare (Food Revolution Network, 2018). Also, trends towards healthier lifestyles are increasing across different countries. This resulted in increased sales of local food based on facts of its impact on health generally (Arenas-Jal *et al.*, 2020; Hieke *et al.*, 2016). Furthermore, busy lifestyles as well led to new creative convenience food and eating

out food trends (Markman, 2018). Accordingly, such different trends point out the industry's fragility and the changing dynamic of the consumer's food choices.

Different personal values impact consumers' behaviour towards food choices which may be linked to culture, traditions, social, economic, ethical and environmental concerns (Delicato *et al.*, 2019). Universalism values have been consistently linked to healthier food choices (Farragher *et al.*, 2016; Puska, 2019). Moreover, changes in consumer behaviour towards food made consumers more conscious with their food purchasing as compared to the past. As a result, there is an increase in the consumer's attitudes towards food quality, safety and the eco-social impact of food resulting in a high demand for nutritious, healthy safe food. This in turn, affects the consumer's attitude which affects the purchase decision intention and behaviour (Savelli *et al.*, 2017). According to Collins *et al.* (2019), social norms influence food in terms of what is purchased. Consumers rely on others' perception to guide their own food choices. In other words, the sense of belonging to a group, lifestyle and/or culture influences the purchase of particular food (Aschemann-Witzel & Zielke, 2017). From an environmental perspective, consumers are showing more social responsibility and giving more attention to the environment when it comes to their food purchase behaviour (Savelli *et al.*, 2017; Usharani & Gopinath, 2021). The anticipatory guilt in the food industry appears in various dimensions regarding food production, purchasing, consumption and disposal. The food purchasing process has a significant impact on the environment. Accordingly, guilt and its anticipation are embedded in to those environmentally-friendly food products where, the arousal of a sense of self-accountability increases the demand on such products. Moreover, the anticipation of guilt is used as an effective marketing tool nowadays by marketers to direct consumers preference to such guilt free food (Viet Nguyen *et al.*, 2019). From a different perspective, due to severe online grocery stores competition, the brick-and-mortar groceries are focusing very much on their store's atmospherics. This is done in efforts of creating an optimum in-store consumer experience for customers (Biswas *et al.*, 2017; Gauri *et al.*, 2021). There are a handful of research in such stream showing how different ambient, design and other in-store factors influence food choice decisions (Biswas *et al.*, 2019; Kollarova, 2020). Accordingly, examining and understanding the effect of diverse atmospheric

factors on food choices related behaviour could be especially effective in offering interesting insights.

The food industry is one of the main consumption areas that account for the highest environmental impacts (Ritchie & Roser, 2020; Steen-Olsen & Hertwich, 2015). With growing environmental concerns and the growth in the population and income, the global food sector is facing major challenges for providing food security to an increasing population under the threat of environmental degradation (Aschemann-Witzel & Zielke, 2017; Fanzo *et al.*, 2020). Consequently, moving to consuming organic food and transforming the food system are essential behavioural changes for a more sustainable and healthy life. This sustainable lifestyle is becoming among many countries' top priorities, especially in developing emerging countries like Egypt (Viet Nguyen *et al.*, 2019). Besides, the high occurrence of diet related diseases such as diabetes and heart disorders due to poor dietary choices raised an alarming public concern leading consumer to focus more on the food quality and safety. Alongside, with the world's obsession of promoting an absence of disease, healthy lifestyles are becoming a major public health challenge/goal in the 21st century (Savelli *et al.*, 2017). Recently, many individuals believe in the motto "You are what you eat". This perception contributed highly to an increased organic food demand (Aschemann-Witzel & Zielke, 2017; Tariq *et al.*, 2019). The coming section will discuss the research proposed conceptual model by construct where, the research hypotheses are developed and represented.

2.10.1. Attitude towards Organic Food Purchase

Attitudes are favourable or unfavourable evaluation of the individual forms of a specified behaviour (Ajzen, 1991). Attitudes (as a function of behavioural beliefs) influence the intentions; if an individual believes the performance of behaviour will lead to a positive outcome, then he/she will develop a favourable attitude towards that behaviour. Attitudes are key predictors of purchase intentions and consequently purchase behaviour (Ajzen, 1991; Ajzen & Fishbein, 1980). As a general note, the more favourable the attitude is, the stronger the intention to perform the behaviour (Ajzen, 2020). From an environmental perspective, environmental attitudes are rooted in a person's self-concept. It expresses the degree to which an individual perceives him- or herself to be an integral part of the natural

environment (Ateş, 2020). There are two types of attitudes that are measured in this research; cognitive and affective. Strong predictions were obtained when both attitudes were combined into a single measure, suggesting that they can usefully be considered parts of the same attitude. Cognitive attitude signifies one's evaluation of an object resulting from one's thinking. Affective attitude refers to a set of emotions in association with an object (Azjen, 2011). Research argues the importance of taking someone's feeling-based evaluation of an object into account when predicting his/her behaviour (Miles & Upenieks, 2021). Addressing the attitude formation through testing the individual-specific internal components is key to understanding the decision-making process.

In environmental behaviour domain attitudes are considered a powerful key predictor and the strongest contributor with a significant positive influence on effective pro-environmental behaviour (Liu *et al.*, 2020). Tandon *et al.*, (2020) and Wu and Zhu, (2021), stated that organic food purchase is strongly facilitated by positive environmental attitudes. For example, environmental attitudes were found significantly related to individuals' intentions to consume organic vegetables (Sawitri, 2015). In a low-cost domain, the consumer's shopping behaviour and purchase decisions (if not constrained by being difficult to perform) are predicted based on environmental attitudes (Ghosh *et al.*, 2019; Mansoor & Paul, 2022). Numerous studies support the positive relationship between consumers' attitudes and behavioural intentions and thus behaviour. It has been confirmed in various sustainable behaviour contexts such as electricity and gas usage (Ansu-Mensah & Bein, 2019), different product categories littering and organic product purchases (Tandon *et al.*, 2020) and in different cultures (Kumar, 2019). The majority of research found that the relationship between consumers' attitudes towards purchasing organic products and their intentions is strong (Basha & Lal, 2019; Park & Ha, 2014). On the contrary, some researchers explained inconsistency between attitude, intention and behaviour where even in some cases positive attitudes and intentions were not ultimately reflected in purchase behaviour (Arli *et al.*, 2018; ElHaffar *et al.*, 2020; Moser, 2016).

Considering the organic food purchase behaviour, many authors explored the attitude-behaviour gap in a broader view. The consumers' intentions to purchase

organic food are likely to be a function of both cognitive and affective attitudes. With regards to cognition-based attitude, consumers assess organic food purchase based on its potential benefits or desired outcomes in comparison to its price (Liang, 2016; Testa *et al.*, 2019). Likewise, according to Nguyen *et al.*, (2019), the economic variable is considered the main influencing factor behind the purchase of organic food. Organic food purchase also involves emotion-based evaluation as it is considered a pro-environmental behaviour. This is as it relates to the well-being of the environment beside present and future generations (Berki-Kiss & Menrad, 2022). In the organic food context, attitudes account for more than 50% of the variance of pro-environmental behaviour (Ogiemwonyi & Harun, 2021). It might even be the most powerful predictor to organic purchase (Kim & Chung, 2011; Liu *et al.*, 2020). However, other studies provide counterevidence like Moser, (2016) were among the researchers that identified the weak predictive power of the attitude stressing on the attitude-intention-behaviour gap in the present context.

Attitudes are viewed as a key predictor of pro-environmental intention and behaviour in rich developed countries, compared to countries scoring low on development indicators (Aral & López-Sintas, 2021). This is because, the more developed the country, the more the individuals who are involved in environmental activities and rewarded. On the contrary, a less prevailing research stream suggests that developing poor nations are concerned more about the environment as they witness significant local environmental problems (Morren & Grinstein, 2016). Moreover, based on Tantawi *et al.*, (2009), Park & Ha (2012), and more recently ElHaffar *et al.*, (2020), the cognitive and affective attitudinal components of any behaviour do not always match with behaviour. Thus, challenging the hypothesis that consumers normally behave according to their attitude which suggest a gap. Therefore, researchers consider additional antecedents to better predict the attitude-intention-behaviour linkage. That being said, conducting the study in the Egyptian market is of an important edge as it will clarify the attitude towards organic food purchase in a fast-growing developing economy. Given the persisting paradox and the range of findings, it is clear that there is a need for marketing research to address the massive disconnect between attitudes towards organic food purchase, intentions and purchase behaviours (Cronin *et al.*, 2011, p. 159; Ismael & Ploeger, 2020). Based on the above discussion, this study intends to examine the influence of the

attitude to purchase organic food on the intention through hypothesizing the following:

H1a: There is a positive relationship between attitude towards organic food purchase and intention towards organic food purchase.

2.10.2. Social Influence towards Organic Food Purchase

The influence of social models and social expectations on behaviour should not be underrated in order to support pro-environmental behaviour and influence decision making (Kim & Seock, 2019; Moser, 2016). One of the focuses of this research is to develop a predictive construct through identifying factors that socially influence the intention to purchase organic food. Social influence within this research domain goes beyond Ajzen's (1991) Theory of Planned Behaviour by incorporating two important pressures. The first is the influence of social norms. The second is the influence resulting from social actors during the situation within the store itself. This research supports the combining of both influences to improve the explanatory power of the construct, aiming to measure the overall cumulative social influences affecting the intention to purchase organic food. This construct should uncover new dimensions as it integrates two relevant yet different concepts from different research streams in to a common construct.

Social norm expresses how significant others think one should behave in relation to a certain behaviour (Ajzen & Fishbein, 1977). It represents the perceived social pressure to perform or not to perform behaviour and represents the multiplicative function of complying with the social pressure. It also expresses the probability of social approval for performing the behaviour (Ajzen & Madden, 1986; Fishbein & Ajzen, 1975). Individuals tend to conform to social norms due to the fear of social pressure and/or because their referents provide guidance about an appropriate or beneficial behaviour in their society (Kjeldahl & Hendricks, 2018). As a result, the greater the social pressure perceived by an individual, the more likely the intention to perform the behaviour (Ajzen & Fishbein, 1977). Past research has highlighted the important role of social norms in predicting one's pro-environmental behaviour (Ajzen 2011; Wang *et al.*, 2021). Moreover, empirical evidence shows that consumer's intentions towards pro-environmental behaviour depend on social norm (de Groot *et al.*, 2021; Park & Ha, 2012). Furthermore,

others' perceptions about one's behaviour have influence on the purchase behaviour for organic food (Kumar & Ghodeswar, 2014; Massey *et al.*, 2018). It was argued that social norms indirectly activate organic food purchasing through effecting intentions (Golob *et al.*, 2018). Social pressure in specific situations can be more influential than the person's own attitude towards the intention (Zhou *et al.*, 2013). In other words, individuals in a specific situation could be motivated to behave like other people in the same situation, as individuals have a tendency to react to other people's expectations and even more to what other people do (Bai *et al.*, 2020). Additionally, communicating social expectation from important social groups is of extreme value in predicting the intention to perform certain behaviours (Kleinschafer & Morrison, 2013; Ru *et al.*, 2018).

The second type of influence that should not be underestimated is the influence resulting from people within the purchase situation. The situational social influence is temporary social factors particular to a time and place that captures the way individuals feel and think about the product/environment. This affects their intentions by influencing the way they think and act in such a situation, thus, affecting their current behaviour. Some consumer prefers the interaction with a salesperson (looking for human contact), that meets their needs and wants and in turn affects their purchasing intention (Demoulin & Djelassi, 2016; Vannucci & Pantano, 2019). Another important aspect that makes this type of influence even more important is the fact that individuals in certain purchase situations experience pressure to enforce norms they do not believe in in the first place (Lindberg & Steg, 2013). The situational social influence may be a driver to engaging effectively in pro environmental behaviour, through affecting customers' intention. Consumers develop and realize the importance of products/services when they interact with others and gather related information evaluating them based on the comments and opinions of others (Oliver & Lee, 2010; Vannucci & Pantano, 2019). Consumers intend to buy products that follow the perceptions of the society (Chaudhary & Bisai, 2018). For example, in an environmentally friendly society, behaving pro-environmentally is perceived as a modern way of lifestyle. Otherwise, he/she will be perceived as out-dated in the society (Kumar & Ghodeswar, 2014; Vermeir *et al.*, 2020). Likewise, buying organic food is considered an act of modernization and

belonging to an elite society (Gifford & Nilsson, 2014; Soroka & Wojciechowska-Solis, 2019).

The social influence as the service-scape social dimension considers the impact of certain ideologies communicated and presented through different social factors on the consumer's intention to purchase (Pecoraro *et al.*, 2021). As previously stated, shopping behaviour has become a social experience perceived more as a social activity as consumers are affected by various social encounters during the situation (Terblanche, 2018). Therefore, examining the social effect within the store and how it directs the consumer's organic food purchase decision represents the essence of a social service-scape dimension. Past studies proved that the influence of external stimuli on individuals is as important as the influence of internal stimuli while, in certain cases external ones can outweigh the internal ones (Lindberg *et al.*, 2018). From a societal perspective, conceptualizing the retail store as service-scape the organic food purchasing within the pro-environmental context considers the social, environmental and moral dispositions. Where, consumers are perceived as socio-culturally bounded individuals rather than an isolated group of consumers (Fuentes & Sörum, 2019). The social normative ideologies conveyed by the social service-scape to these individuals should foster certain intentions that influence purchase decisions. Likewise, consumers are influenced by social, humanistic elements representing valued people, focal employees and other customers expressed values within the environment. For example, Liu-Thompkins *et al.*, (2022) stated that the nature of the relationship between the consumer and the employee is a main factor affecting the purchase decision behaviour. The social service-scape articulate around people in retail stores constituting a form of communication through providing emotions, opinions and product knowledge. While, salespeople caring and understanding other people's needs, actions, and practice and offering information that would move purchase intentions and eventually purchase behaviours. In this research case, the retail store provides product information and has personal narratives that express the moral environmental values accompanied with the purchase of organic food.

Reportedly, there is a rise of social pressure for consumption in developed countries (Usman *et al.*, 2022), which resulted in negative environmental

consequences. On the contrary, some scholars argue that there are many people following a more sustainable behaviour -abandoning materialism-, due to the growing social norm and social pressure to act “environmental”, which strengthen the impact of social norms on intentions to behave pro-environmentally (Alzubaidi *et al.*, 2021; Morren & Grinstein, 2016; O’Neill *et al.*, 2018; Zhang *et al.*, 2018). Studies examining social norms in developing countries often find a consistent positive linkage between social norms and acting environmentally (de Lange *et al.*, 2019). Moving to the Egyptian market, the field of organics is still considered novel, ambiguous and uncertain. In such cases individuals often use other people’s behaviours to decide the most effective course of action (Park & ha, 2014; Wang *et al.*, 2019; White *et al.*, 2019). Some scholars stated that social norms no longer exert direct impact on behavioural intentions (Harries *et al.*, 2013). Others argued that social norms have a direct impact on intentions (Kim & Seock, 2019). Also, some authors ignore the effect of the situational social influence on behavioural intention when it comes to the attitude–intention–behaviour models (Grimmer *et al.*, 2016). Therefore, this study adds to the understanding of aggregate social influences on the intention by intending to examine the influence of the social influence towards organic food on the intention through hypothesizing the following:

H1b: There is a positive relationship between social influences (representing the social service-scape) towards organic food purchase and intention towards organic food purchase.

2.10.3. Anticipated Guilt towards the Environment

Guilt can be either intellectualised as a personality trait or as an emotion, denoting a temporary state “guilt trait” versus “guilt state” (Lascu, 1991). Based on the second approach, guilt is defined as a negative and unpleasant state taking place when individual’s behaviour or intentions contradict his/her moral standards or violate well-established social standard (Baumeister *et al.*, 1994; Haj-Salem & Al-Hawari, 2021). Huhmann and Botherton (1997) acknowledged three main types of guilt based on different reasons that lead to the “experience of guilt”. Reactive guilt happens when the internalized norms regarding what makes behaviour acceptable were invaded. Existential guilt occurs when the individual feels luckier or more fortunate than others. Anticipatory guilt refers to the anticipation of a feeling an

individual might experience when considering violating their personal standards. The anticipation of guilt provides an opportunity to avoid the unpleasant emotion linked to misbehaving (Hughes, 2020). In practice, the two main types that are commonly contrasted are reactive and anticipated guilt (Elgaaied, 2012). The concept of guilt started to draw the attention of researchers in the marketing area in the 1980s and 1990s. Some authors advocate that assessing guilt and its anticipation is not important. This is because guilt indicates unstable intention and behaviour and mainly due to individuals behaving in ways that are personally important to them and related to their values and not because they feel guilty. Otherwise, their beliefs and intentions can be effortlessly challenged by other people's influence or other situational influences and facilities. This idea is to a great extent logical. The present research along with other studies (e.g., Elgaaied, 2012) investigates whether behaviour, despite being a result of anticipation of feeling guilty or compliance with social pressure, is still considered as a preliminary step towards a more sustainable lifestyle

Guilt involves a social dimension (Parkinson & Illingworth, 2009; Thiermann & Sheate, 2020) and those altruistic behaviours are sometimes only performed to reduce the feeling of guilt. Parallel, pro-environmental behaviour is seen as a pro-social behaviour, which in turn benefits other people. Additionally, it is future oriented and not directly benefiting the individual who is doing the behaviour (Elgaaied, 2012). Individuals may take part in pro-environmental behaviour to avoid guilt emotions stemming from non-environmental behaviour. Researchers examined the role of guilt in the area of pro-environmental behaviour and explained that guilt influence environmental behaviour (Shipley & van Riper, 2021; Steenhaut & van Kenhove, 2006). Bamberg *et al.* (2007) considered the effect of ecological guilt in explaining travel mode choices. Concerning the organic food context, it was argued that the anticipated guilt can guide the consumer's decision for reasons of easing such a feeling (Konuk, 2021; Pelozo, et. al., 2013). Feelings of self-accountability and ethical attributes can trigger an organic purchase. Podobsky and Haynes (2016) stated that 70% of their respondents chose to purchase organic food because of anticipated guilt appeals and their environmental concerns. Furthermore, Chandra (2018) argued that the guilt anticipated of not purchasing organic food can motivate intention driven purchasing.

The “feeling of ecological guilt” was measured in previous research. Wolff *et al.* (2011) and more recently Escadas *et al.*, (2019) among others argued that anticipated affection (i.e., guilt) can strongly influence intentions and behaviour. This is independent of other beliefs about the likely consequences of the behaviour in the Theory of Planned Behaviour. A possible explanation could be that the theory variables in most of the anticipated emotional studies are assessed with respect to doing the behaviour. Anticipated affects are to be measured in relation to not doing the behaviour (Fishbein & Ajzen, 2010). A study by Ajzen and Sheikh (2013) provided strong support for this argument. It showed that only when anticipation was measured with respect to one alternative and the basic theory variables were measured with the other alternative, there was a significant contribution. Based on this argument, in this research the anticipation of such a feeling is measured. In other words, the researcher is seeking to assess the anticipated guilt an individual might experience if he/she did not intend to behave pro-environmentally. Moreover, examine whether the anticipation of guilt would have an effect on the intention to behave pro-environmentally through the purchase of organic food.

Many researchers criticized the scarcity of research dealing with the effect of guilt and its relationship with intentions and behaviour (Farrukh *et al.*, 2022). The role of emotions and affective responses has not been addressed effectively (Lunden *et al.*, 2020). Only few studies tackled precisely the question of the impact of guilt and more specifically its anticipation on pro-environmental behaviour. As a result, little knowledge is available about the effects of anticipated guilt (Shipley & van Riper, 2021). Yet, a number of studies provided evidence that guilt (and its anticipation) shapes behaviour (or behavioural intention) and it has been approved that individual tend to avoid behaviour that they anticipate will make them feel guilty and behave in ways that will diminish that feeling. An interesting finding that was revealed in the research of Elgaaiid (2012) was that guilt can be activated by situational factors. This could be of important insights in this research (an all-organic grocery store), as it is not the lack but rather the availability of such facilitating situational factors that could help in explaining and examining the anticipated guilt and its relationship with the behavioural intention. The idea is that the more the facilities, the guiltier the individuals would feel about not buying organic food and behaving pro-environmentally. Studies examining the influence of

affective variables on pro-environmental behaviours in general and organic food purchase behaviour in specific are rather scarce. This research discusses whether anticipation of guilt would be a relevant predictor encouraging such pro-environment behavioural intention through choosing organic food. Therefore, this study intends to examine the influence of the anticipated guilt towards the environment on the intention through hypothesizing the following:

H1c: There is a positive relationship between anticipated guilt towards the environment (representing the natural service-scape) and the intention towards organic food purchase.

2.10.4. Self-Transcendence Values

The term “value” symbolizes the individual’s preferences, interests, pleasures, likes, moral obligations, desires, wants, goals, needs, attractions, and many other kinds of selective orientations based on a notion of better-ness (Brown, 1984). From a psychological aspect, values are defined as enduring beliefs about desirable end-state of existence (Rokeach, 1973; Schwartz and Blisky, 1987). It refers to conceptions of the desirable that direct the way social actors select actions, assess people and events and give explanation to their actions and evaluations (Schwartz, 1994a). Hence, people’s values are abstract and inherent motives, which guide, defend or explain their attitudes, norms, opinions and behaviours (Rokeach, 1973; Schwartz, 1992). Rokeach (1973) saw values as giving meaning to action. Accordingly, understanding values is critical to understanding and predicting behaviours. Based on social psychology, values are important life goals that are often considered in an over-determined way as driving observed behaviour and more often ignored as too subjective or difficult to measure (Schwartz *et al.*, 2012).

By the 1960s, values were an explicit focus of nearly all the social science disciplines (Hilton & Piliavin, 2004). Research within the context of environmental behaviour showed that values indeed matter for pro-environmental behaviour (Lindberg & Steg, 2013; Wang *et al.*, 2021). However, the literature does not address consumption from the point of view of the values that guide consumer’s behaviour (Kilbourne & Pickett, 2008; White *et al.*, 2019). Still despite observed efforts in previous work to increasing pro-environmental behaviour, many failures exist due to overlooking the link between behaviour and value fulfilment (Oreg &

Katz-Gerro, 2006; Shin *et al.*, 2022). Research understanding the consumer's psychographic variables such as "values" seems to be more fruitful in forecasting and explaining consumer's attitudes, intentions and, particularly, pro-environmental behaviour (Bezencon & Blili, 2010; Tamar, *et al.*, 2020). Pro-environmental behaviour can ultimately be traced back to basic value orientations, even if the distance between such values and behaviour is bridged by a long line of variables (Klockner & Blobaum, 2010; Rausch & Kopplin, 2021; Stepanova *et al.*, 2018).

Pro-environmental behaviour research has demonstrated that different types of consumers show values, attitudes and behaviours in different ways (Cheung & To, 2019; Park & Ha, 2012). Moreover, values may influence an individual's attitude by guiding him/her to look for things that satisfy his/her values (Kim & Chung, 2011; Sreen *et al.*, 2020). One method to examine consumer choice is through identifying relationships between personal values and behaviours. Research has stated that values given their reflective and enduring nature, pave the way to environmental attitudes and subsequent behaviours (Kautish & Sharma, 2019; Kilbourne & Pickett, 2008). There is considerable empirical evidence for the role that values play between the links of attitude and behaviour (Brick & Lewis 2016; Jacobs *et al.*, 2018). But still some authors like Whitmarsh and O'Neill (2010), stated that pro-environmental behaviour does not have to be influenced by values at all. On the contrary, such behaviour could be the result of other factors like self-identity, place identity and/or past behaviour. Some scholars have confirmed the moderation role values play on the attitude-intention-behaviour chain with regard to organic purchase behaviour (Avi & Kallur, 2021; Zhou *et al.*, 2013).

Values can and often do conflict with each other (Zhou, 2013). Schwartz (1992) acknowledged this conflict by developing the schematic representation of the universal human needs (the ten value types that were discussed previously) in which all individuals and groups must respond. Given the division of the value circle, the researcher believes it is important to focus solely on the major value type "self-transcendence". Macro societal problems and worries like the destruction of the environment correlates very strongly with universalism values. Furthermore, universalism and benevolence values are very high among individuals with a positive outlook on human nature (Schwartz, 2010). Universalism values are

associated with nature and the awareness of the scarcity of natural resources. Benevolence values represent cooperative and supportive social relations promoting actions for the welfare of others (Schwartz, 2010). The refined theory gives researchers the option of working with various sets values which are topic specific (Shwartz & Butenko, 2014).

An individual's value priorities determine the relative influence of attitude on the formation of intention (Ajzen & Fishbein, 1980). Individuals that embrace self-transcendence values hold an ecological worldview and take responsibility for their behaviour. They also support and/or expect others to act pro-environmentally, as they have a feeling of moral obligation to act in such a manner (Klockner & Blobaum, 2010; Steg & Nordlund, 2018). According to Zhou *et al.*, (2013) and Puska, (2019) among others, self-transcendence values have the strongest moderation effect on the relation between attitude and intention regarding purchasing organic food. From a social angle, the number of empirical associations found between social influence and individual values points to a promising arena for appealing disputes (Lazaric *et al.*, 2020; Schwartz, 2010). Values occupy an important place within individuals' social psychology which could clarify the effect of social influences on individual's choices. Subsequently, much work could still be done to better understand the social influence and the expression of the individual's values (Alshurideh *et al.*, 2019; Hilton & Piliavin, 2004; Wang *et al.*, 2021). Moreover, there has been an observed increase in the impact of the social variables on the consumer's decision (Thøgersen *et al.*, 2016). The organic purchase decision making is complex with diverse motivators, which justifies the lag between the attitude and the purchase (Rossanty & Nasution, 2018). These highlights unexplored social situational factors representing aspects of the external environment's impact on the opportunity to perform the behaviour seems vital (Nguyen *et al.*, 2019). Moreover, a study by Lonnqvist *et al.* (2006) examined the relationship of self-transcendence values to anticipated feelings that motivate value-consistent or inconsistent behaviour. It showed that the higher the transcendence values, the less the guilt and regret that will be anticipated and the more value-consistent behaviour. These results agree with Schwartz's (1977) assumption that individuals anticipate guilt and self-blame for not consistently behaving with their motivating self-transcendence values (Shwartz, 2010). Indeed, guilt feelings happen by departing

from normative behaviour. However, this could be minimized by behaving within the social expectation framework, where individuals are anticipated to experience less guilt and self-blame (Trelohan, 2022; Pensini, 2012). Therefore, focusing on this value type in respect to the circular nature of values and the theoretically assumed underlying dimensions, helps expand the value literature and leads to a better understanding of value dynamics in environmental behaviour research.

It is obvious that the pathway from values to behaviour is long and captures many variables. This is the reason that correlations with basic values may not be strong (Schwartz, 2010). Furthermore, the debate over the value placement within individual decision-making is based on the different structural explanations for behaviour (Hammel, 1990). Little is known about the way values sway the orientation of individuals towards environmental behaviour especially when examining purchase of organic food. Generally, the research on the attitude-intention-behaviour relationships has shown that such relationships are far from perfect and that other variables need to be considered for a better understanding. In regards to the theory of planned behaviour, behavioural intention is a clear-cut example of a mediator concept. Where, Fishbein and Ajzen assumed that the influence of attitudes and normative factors on behaviour is mediated through behavioural intentions. A mediating variable is an intermediate in the causal sequence relating an independent variable to a dependent variable. In other words, the independent variable causes the mediating variable that causes the dependent variable (Mackinnon, 2015). Moreover, a mediator is used in situations when the relation between the independent and dependent variables is no longer significant unless controlled by the dominant mediator. On the contrary, moderator variables are typically introduced when there is inconsistent relation between an independent and a dependent variable. Another property of the moderator variable is that, unlike the mediator predictor relation (where the predictor is causally antecedent to the mediator), is that moderators and predictors are at the same level in regard to their role as causal variables antecedent.

According to past literature, attitudes and subjective norm are the main factors determining the intention and hence behaviour. Moreover, positive attitudes towards organic food purchasing were found related to self-transcendence values. It

was realized that values strengthen the attitudes when explaining intentions. In addition, Ajzen and Fishbein (1980) stated that an individual's value may determine the relative influence of the personal attitude and subjective norm on the consumer's intention formation. However, empirical research on the moderating influence of personal values on the consumer's decision making is quite rare. Accordingly, a more realistic goal was to approach the attitude- intention- behaviour relations from the moderator-variable perspective. So, as it can be concluded that self-transcendence values as a moderating variable, affects the relationship between the three antecedents proposed (the attitude, social influence and anticipated guilt) and the intentions regarding purchasing organic food. Thus, the following hypotheses are proposed:

H2a: Self-transcendence values (representing the natural service-scape) moderate the relationship between the attitude towards organic food purchase and the intention towards organic food purchase.

H2b: Self-transcendence values (representing the natural service-scape) moderate the relationship between the social influence towards organic food purchase and the intention towards organic food purchase.

H2c: Self-transcendence values (representing the natural service-scape) moderate the relationship between the anticipated guilt towards the environment and the intention towards organic food purchase.

2.10.5. Perceived Behavioural Control

The amount of control an individual feels over their environment may be an important factor influencing his/her pro-environmental behaviour. If one feels he/she has the ability of making and implementing choices, then it would be motivating to engage in pro-environmental behaviour (Derdowski et al., 2020; Pensini, 2012). Consumers give importance to environmental attributes and are willing to consider organic food. However, behaving environmentally does not simply happen, as they face obstacles and difficulties hindering them from behaving accordingly (Gadema & Oglethorpe, 2011; Paillé *et al.*, 2019). The concept of Perceived Behavioural Control reflects the complicating circumstances and accounts for conditions easing or obscuring behaviour (Ajzen, 2002). The Theory of Planned Behaviour considered

the influence of non-motive factors like the necessary resources and opportunities. The perceived control was added to tackle situations where individuals do not exercise full control on the behaviour in question. It is shaped by beliefs concerning whether one has access to the necessary resources and opportunities to perform the desired behaviour successfully (Ajzen, 1991). In other words, this construct represents the perception of easiness an individual hold to perform actions (Moser, 2016). An individual's decision is highly influenced by his/her perception of control over the behaviour. When he/she feels a lack of ability or resources to perform the behaviour; he/she will not likely have strong intentions to perform the behaviour (Wei *et al.*, 2019; Zhou *et al.*, 2013).

The predictors of the Theory of Planned Behaviour are significantly correlated with purchase intentions; however, their relative weight varies. Many researchers agreed that the perceived behavioural control plays a moderator role on the relationship between the attitude and the intention for example Aitken *et al.*, (2020). Baron and Kenny (1986) defined the moderator as “a qualitative or quantitative variable that affects the direction and/or strength of the relation between an independent variable and a dependent variable” (Machado-León *et al.*, 2016 p. 34-44). The more the perceived behavioural control, the stronger is the relationship between the attitude and intentions (Kim & Chung, 2011; Maya *et al.*, 2011; Sultan *et al.*, 2020). This is also relevant to various pro-environmental behaviours like recycling (Geiger *et al.*, 2019; Park & Ha, 2014) and purchasing organic products (Aitken *et al.*, 2020; Zhou *et al.*, 2013). On the contrary, if obstacles were perceived they act to reduce the behaviour and including factors like price and availability (Aitken *et al.*, 2020; Ajzen, 1991; Smith & Paladino, 2010). There are two rationales offered for what is written above. Firstly, the effort to bring behaviour to a positive conclusion is likely to increase with perceived behavioural control. Secondly, the reason for expecting behavioural accomplishment is that perceived behavioural control is often used as a substitute for a measure of control (depending on the accuracy of the perceptions). Therefore, perceived behavioural control is important to be considered.

Other people's beliefs or behaviour may affect the person's own perception to whether the behaviour would be difficult or easy to perform (i.e., perceived

behavioural control). This association was proved right on moral-related behaviour studies especially in novel and ambiguous situations (Park & Ha, 2014). In the case of organic food, price is one of the most vital control attributes (Gadema & Oglethorpe, 2011; Kushwah *et al.*, 2019; Mai & Hoffmann, 2012). Consumers perceive the higher prices of organics in comparison to conventional as a main barrier to purchase (Melovic *et al.*, 2020; Vega-Zamora *et al.*, 2014). Opposing this view, researchers argued that consumers do not consider the price as a barrier for their choice (Burke *et al.*, 2014; Kushwah *et al.*, 2019; Meise *et al.*, 2014). That is why individuals are less sensitive to price and more willing to pay a premium (Jeong & Jang, 2019; Mauracher *et al.*, 2019; Parsa *et al.*, 2015). Subsequently, when the researcher investigated this attribute more closely, it was realized that price is perceived as value for money, so if the premium price was justified through other gains, consumers will be willing to pay the higher price (Dwivedi *et al.*, 2018). These findings reveal that the perceived value for money (i.e., the willingness to pay for organic food) is the decisive predictor of purchasing and not the price.

Another interesting point that should not be overseen, is that, according to Morren and Grinstein (2016), a better infrastructure and access to green technologies strengthen the relationship between perceived behavioural control and intention to act pro-environmentally. The lack of environmental infrastructure and accessibility to green technologies in developing countries like Egypt, weaken the impact of perceived behavioural control on intention and the realization of such behaviours (Marquart-Pyatt, 2012; Punzo *et al.*, 2019). Perceived behavioural control stresses on the importance of situational constraints (Bamberg & Möser, 2007; Kashif *et al.*, 2018). The variable is operationalized by asking direct questions about the easiness or difficulties of doing a certain action (Kim & Chung, 2011; Papaoikonomou *et al.*, 2020). Intentions and behaviour in general are to a great extent shaped by contextual influences. In contrast, threat-free contexts with great opportunities enable individual's value consistent expressions. It might be true that an individual with high perceived behavioural control should have stronger intention than an individual with low perceived control. However, intentions are influenced by additional factors. Therefore, this research will examine the effect perceived behavioural control as a moderator in the research model. Thus, the following hypothesis is proposed:

H2d: Perceived behavioural control moderates the relationship between the attitude towards organic food purchase and intention towards organic food purchase.

2.10.6. Intention towards Organic Food Purchase

Drawing on social psychological theories such as the Theory of Planned Behaviour (Ajzen, 1985, 1991), rule is the stronger the intention to do a behaviour, the more likely that this is behaviour is performed (Zhu, 2018). In general, the theory is supported empirically as a theoretical foundation and appropriate base investigating environmental behaviour (Ahmed *et al.*, 2021). Behavioural intentions are an intermediate variable between attitudes and behaviour (Fishbein & Ajzen, 1975). Accordingly, upon applying the Theory of Planned Behaviour on environmental studies, the precision with which the attitudes and behaviours are defined is the key moderator for intentions as a reliable predictor of behaviour (Tamar *et al.*, 2020). For example, attitudes towards recycling predicted the intentions to recycle newspapers, which predicted directly recycling (Sawitri, 2015). However, according to a study by Kor and Mullan (2011) and more recently Budovska *et al.*, (2020) intentions could be sometimes found to be poor predictor of behaviour. This is especially true to pro-environmental behaviour as expressing intentions needs little or no commitment from the individuals. They could be only expressing their support instead of their intentions as being a predictor of behaviour (Moser, 2016). The purchase decision happens when individual evaluate the implications of specific pro-environmental acts and balance the psychological anticipated costs and benefits of potential behaviours (Schwartz 2010).

The Theory of Planned Behaviour has been widely applied and acknowledged to explain pro-environmental behaviours (Moser, 2016; Ogiemwonyi & Harun, 2021; Zhou *et al.*, 2013). Recently, the theory was also exploited in the food choice area especially in the organic food field (Zhu, 2018). It showed that the environmental factor is a significant independent predictor of intention to purchase organic food aside the attitude. Accordingly, the intention to purchase organic food construct in this research is considered from a new notion of environmental intentions following Morrison's (1979) and Netemeyer *et al.*, (2005) definition that environmental intention is the likelihood that a consumer would buy a particular

product resulting from his/her environmental need. Chen and Chang (2012) and Costa *et al.*, (2021) examined the environmental purchase intentions and found out that it was related to environmental values. Yet, apart from the prevalence of environmentalism, the literature is not definite on how the environmental purchase intentions are developed. So, to comply with the environmental trends of increasing such environmental purchase intentions, this research framework studies intentions under the context of environmental thinking. Therefore, this framework investigates what best predicts organic food purchase intentions through:

- Attitude towards purchasing organic food
- Social influence towards purchasing organic food
- Anticipated guilt towards the environment with the non-purchase of organic food.

This framework is stimulated by the pro-environmental perspective as a realization of this intention to behaviour. In other words, this model should improve the prediction of the organic food purchase. Moreover, it exploits the relationship between such purchase and behaving pro-environmentally considering the environmental intentions. According to various scholars, individual's environmental behaviour is shown to be positively related to the purchase intentions of organic products (Ahmed *et al.*, 2021; DiPietro *et al.*, 2013).

Ahmad and Juhdi (2008) and Pham *et al.*, (2019) noted that the individual's perception of organic food affects his/her pro-environmental behaviour and that purchasing organic food is often classified as a pro-environmental behaviour. It was proved that intention to purchase organic food had a strong relationship with environmental influences (Zhu, 2018). However, according Trang *et al.*, (2019), it is important to note that when the consumer chooses between the product's attributes and the environmental attributes, the product's attributes are favored in comparison to the environmental ones. This is because consumers are unlikely to compromise the traditional product's value and perceived quality. Despite the various psychological/behavioural theories that have been applied to investigate more variables that predict organic food purchase intention, the share of the organic food market and consumer expenditure are relatively low (FiBL & IFOAM, 2014; Janssen, 2018). Nguyen *et al.*, (2019) justified this inconsistency between what

individuals claim (via values, attitudes, etc.) versus their behaviour by the so-called “intention-behaviour”, “attitude-behaviour” or “green gap”. This research works on narrowing this gap that is still there (Chekima *et al.*, 2017). This will be done by understanding what hinders individuals from translating their intention and attitude into practice through behaviour.

According to recent literature, contextual variables act as a moderator between pro-environmental intentions and private sphere behaviours while such moderation is sensitive to the type of behaviour (Liao & Yang 2021). In other words it could be concluded that behavioural effects are context-sensitive mainly in low-cost domains (Farjam *et al.*, 2019). Mirroring such results on the situation here, it could be said the store’s atmospherics moderate intentions to purchase organic food environmentally to behave in a pro-environmental manner. As in the intention is environmentally driven by the interaction with the atmospherics which are directed towards the environment resulting in pro-environmental behaviour. The assumption goes in accordance with past studies results that revealed that consumers who are exposed to more environmental elements are more likely to have pro-environmental intentions that will be translated to actions (Liao & Yang 2021). Moreover, it is said that when consumers decide on purchasing pro-environmental products, they will be more likely to depend on their pro-environmental intentions. So, environmental intention is the best predictor of pro-environmental behaviour. That being said, the intentions interaction with the atmospherics is assumed to lead to pro-environmental behaving in the form of purchasing organic food.

The pro-environmental behaviour is assessed in this study from an intent-oriented perspective where, the focus of understanding intentions is key to predicting target behaviours that benefit the environment. Within this research domain, the intention to purchase organic food is assessed as an indicator of a consequent behaviour in response to pro-environmental practices. Thus, this study intends to examine the influence of the intention on the purchase of organic food and behaving pro-environmentally through hypothetically assuming the following:

H3a: There is a positive relationship between intention towards organic food purchase and organic food purchase behaviour.

H3b: There is a positive relationship between intention towards organic food purchase and pro-environmental behaviour.

2.10.7. Store's Atmospherics

Although “service-scape” is the commonly used term referring to the influence of tangible and intangible cues on consumers. There are three other titles that are used interchangeably in the literature to describe the same concept which are: atmospherics, environmental psychology and store environments. This study adopts the term “store’s atmospherics” to refer to the situational influences related to the store’s environment and reflects the physical service-scape phenomena. Store’s atmospherics are situational temporary influences that affect how consumers behave. They can be traced back to Kotler's (1973) work, which was one of the pioneers to advocate the influence of environmental cues in consumer behaviour. He claimed that atmospherics are “the conscious designing of space to create certain effects in buyers”. He contended that environmental stimuli (noises, shapes, scents, music, colour, etc.) can be manipulated to provoke particular emotional effects that manifest certain behaviours enhancing the purchase probability (Daño, 2018; Hooper *et al.*, 2013).

The differences between intentions and behaviour are often due to situational factors (Belk, 1975). There is a wealth of studies demonstrating the linkages between atmospherics and behaviour like Biswas *et al.*, (2019) and how situational forces can overwhelm values to the extent that sometimes individuals contradict their own values (Lucia-Palacios *et al.*, 2020; Whitmarsh & O’neill, 2010). Individuals within the behavioural situation have undoubtedly been affected by at least one of these factors if not all (Matilla & Wirtz, 2008; Nacass, 2018). For example, Hussain & Ali (2015) argued that fragrances make customers staying longer, buy more and leave the store with a better impression of the quality products and services. The range of atmospherics is very broad because purchase situations can vary greatly (Attri & Jain, 2018; Belk, 1975; Carrington *et al.*, 2010). The current research makes use of six environmental stimuli as possible moderators (five of which are identified by Kazancoglu, 2018):

- Store design, colours and layout
- Presentation of visual merchandise

- Background music
- Lighting of the store
- Smell of the store
- Store location and parking facility

Sensory features are the most important factor individuals take into consideration when choosing their food (Paul & Rana, 2012). They are known as the added value of organic food in addition to ethical properties (Curvelo et al., 2019; Schleenbecker & Hamm, 2013). Individuals look for specific traits that involve all their senses and arouse a deeper association with the product (Chekima et al., 2017). Mueller and Szolnoki (2010) recommended that the sensory attributes have to be boosted for a food product to be prosperous in the market. Nonetheless, there has been very little effort, in researching the role of sensory appeal when it comes to its influence on the organic food purchase, especially in developing countries like Egypt. Based on the atmospherics literature, the ambient cues are one of the most widely studied aspects of the service-scape (El-Said et al., 2021; Turley & Milliman, 2000). The store's music, lighting and smell all fall under the ambient conditions and affects one of the five senses (Bitner, 1992; Lindberg et al., 2018; Spence et al., 2014). It is claimed that when these factors are not at a satisfactory level or absent, they negatively affect the consumer behaviour (Baker, 1987; Barros et al., 2019). Store's design, colours and layout, the presentation of visual merchandise and the parking facilities fall under the design clues. These are categorized as either functional or aesthetic and when compared to ambient cues are more visual in nature (Baker, 1987). The design aspect of the service-scape is possibly one of the most important clues as it accelerates the communication of a variety of messages to the consumer on how to behave (Bitner, 1992). User-friendly layouts, designs, the positioning of objects and furnishings facilitate and improve the free flow of movement. Thus, lead to the accomplishment of tasks and a satisfactory service-scape experience (Grayson & McNeill, 2009; Katt & Meixner, 2020). In opposite scenarios, frustration occurs which leads to a dissatisfying service-scape experience (Bitner, 1992).

Store's atmospherics are important drivers and/or barriers to behaving pro-environmentally as well as food choice as pointed out repeatedly in prior research.

Environmental (visual and non-visual) setting influence individual's moods sufficiently shaping behaviours. Consequently, fabricating the right cues is key to controlling moods, thus consumer behaviour (Carpenter & Moore, 2006; Newman, 2007; Xiao *et al.*, 2020). According to Lindberg *et al.*, (2018), consumer's perception is related to the store's environment especially the fit-outs and design. Increasing visibility and convenience encourage individuals to buy organic with less effort or thinking (Guthrie *et al.*, 2015; Moser, 2016; Uren *et al.*, 2021). It was also argued that the three senses of vision, olfaction, and tactility are vital in groceries and relate to perceptions of freshness and cleanliness (Anselmsson & Johansson, 2014; Jaafar *et al.*, 2016; Lindberg *et al.*, 2018) which is parallel with Kotler's work. Accordingly, this construct will contribute to the service-scape research by gaining an understanding for foodscape layouts and how these variables can lead to purchase behaviour. Additionally, integrating situational context and its moderating effects into a model will explain why individuals who intend to purchase organic food do/do not always do so (Grimmer *et al.*, 2016).

When discussing the store's atmospherics and its moderation role on the intention/ pro-environmental behaviour relationship. It should be noticed that consumers give importance to the search for various attributes during their shopping experience. Such attributes are discovered prior the purchase so that, after purchasing they are most probably from the reasons of repeat purchases over time (Kowalska *et al.*, 2021). Furthermore, these attributes could be of spillover effect later. In other words, the pro-environmental construct is measured using ten different behaviours. Some of which are food purchase related while others are environment related. It is assumed that if atmospherics were successful in moderating the pro-environmental essence during the organic food purchase scenario. Then, such essence can affect other similar behaviours under the same umbrella. Focusing on the pre-purchase state, the store's atmospherics in this research case specifically scream out environment. The entire store communicates the concept of being environmentally friendly. Consequently, it is assumed that such clues would strengthen the intention relationship when it comes to behaving pro-environmentally. Let's assume that consumers in the store have intentions to purchase organic food for their own personal reasons. Then, during the search the diverse atmospherics would interact to awaken the environmental spirit inside the

person in efforts of directing his ideas and values towards the environment. That is why it is hypothesized that the store's atmospherics moderates the intention and pro-environmental relation. Within this research framework, the natural service-scape represented partially by the store's atmospherics reflect a pro-environmental ideology through a range of cues. These cues encourage consumers not only to purchase organic food but also perform behavioural acts that participate and benefit the environment during the organic food purchase decision making. Generally, the theoretical perspective on the service-scape whether physical, social or natural allow for grounded in-depth understanding on how consumers construct their purchase behaviours based on the influence of the various intrinsic and extrinsic elements. The researcher aims that by such conceptualization of the service-scape a better understanding of the whole organic food/ pro-environmental relationship will be uncovered by orchestrating the physical, social and natural cues influence on the consumer.

Under the attitudes, intentions, and behaviour models a discrepancy may occur between attitudes and intentions, and/or between intentions and behaviour. Most research focuses on the first discrepancy, assuming that intention is a sensible proxy for behaviour (Grimmer & Bingham, 2013; Parkinson *et al.*, 2018). This research will put emphasis on the second discrepancy with store's atmospherics acting as a moderating variable. Usually, authors ignore the effect of the purchase situation on purchase behaviour when it comes to the attitude–intention–behaviour gap. This research aims to examine how purchase situations could translate organic purchase intentions into purchase behaviour. It is assumed that the store's atmospherics moderates the relationship between purchase intentions and the purchase (Yurova *et al.*, 2017). The broader literature on pro-environmental behaviour highlights the diversity of factors which influence different significant behaviours. However, further work is needed to clarify these variables, understand their interactions and consequences and consider how this contextual dimension relates to pro-environmental behaviour (Daryanto & Song, 2021; Sawitri *et al.*, 2015; Whitmarsh and O'Neill, 2010). Thus, the following hypotheses are assumed:

H4a: Store atmospherics (representing the physical service scape) moderates the relationship between the intention towards organic food purchase and organic food purchase behaviour.

H4b: Store atmospherics (representing the physical service scape) moderates the relationship between the intention towards organic food purchase and pro-environmental behaviour.

2.10.8. Organic Food Purchase

The relationship between various pro-environmental practices and behaviours has been previously discussed in prior literature (Di pietro *et al.*, 2013; Hu *et al.*, 2010; Liu *et al.*, 2020). It was agreed upon that the perception towards organic food affects individual's pro-environmental behaviour, but limited research is there on the relationship between organic food purchase and behaving pro-environmentally (Suki, 2013; Sahelices- Pinto *et al.*, 2021). This is true especially in developing countries where the term "organic" was only recognized for less than 30 years. When it comes to the organic food choice behaviour within a pro-environmental setting, the Theory of Planned Behaviour supports the attitude-intention rationale (Ha & Janda, 2012; Linder *et al.*, 2021; Yadav & Pathak, 2016; Zhou *et al.*, 2013). According to Chen and Chai (2010) and more recently, Kautish *et al.*, (2019) environmental researchers generally believe that through the purchase of environmentally friendly products, individuals can significantly contribute to protecting and improving the environment. Consumers are more willing to purchase green products that are not harmful to the environment as environmentalism is becoming more popular in the world. Buying organic products is the most popular action to reduce an individual's environmental impact in order to meet the needs of current and future generations (Isenhour, 2010 as cited in Moser, 2016; Testa *et al.*, 2019). Where environmental protection along with environmental aspects were from the most important attributes that influence people's intention to purchase organic food (Teng & Lu, 2016 as cited in Zhu, 2018). While individuals generally purchase organics for reasons that include and go beyond environmental concerns (Luzio & Lemke, 2013; Testa *et al.*, 2019), buying organic food is habitually classified as a pro-environmental behaviour, being beneficial to both nature and humans (Alshurideh *et al.*, 2019; Zhou *et al.*, 2013).

In the last 25 years, organic food has gained massive interest. According to the National Organic Standards Board of the US Department of Agriculture (USDA), organic food provides long-term benefits to both the environment and people. Enhancing the quality of the environment is a result of producing nutritious food based on the soil and water conservation and the use of renewable resources (Chekima *et al.*, 2017). Another important point to why this construct is considered is that roughly 70% of all life-cycle impacts of household products and services fall within food, housing and transport (Ding *et al.*, 2019; Tukker & Jansen, 2006). Groceries including food, account to approximately one-third of the environmental impact of the overall household consumption. Therefore, changing food choices will result in a major change in the behaviour. This in turn will affect the environment (Camilleri *et al.*, 2019; Fisher *et al.*, 2013). From a consumer perspective, it is challenging to assess the environmental impact of products correctly (Kjaer *et al.*, 2019; Tobler *et al.*, 2011). However, when it comes to food choices green is often understood as being organically grown or produced (Tanner & Kast, 2003). Although organic food stands out by offering a lot of unique properties, it is mainly perceived as environmentally friendly (Feil *et al.*, 2020; Sirieix *et al.*, 2011). The organic purchase could have different reasons like flavour, health benefits, or ecological footprint (Rana & Paul, 2020). Still the organic attribute is approved by experts as a choice tactic for pro-environmental/ green purchase decisions (Taghikhah *et al.*, 2020; Thøgersen *et al.*, 2012). Therefore, the identification and understanding of such factors are essential for any company success.

Pro-environmental behaviour (i.e., organic food purchase) is often associated with paying high premium price (Moser, 2016; Suphaskuldamrong *et al.*, 2021). Consumers evaluate the consequences of specific pro-environmental acts through identifying the potential material, social, moral, and other psychological costs and benefits. This evaluation happens quickly and un-consciously in a sense that if the balance of anticipated costs and benefits obviously favours either action or inaction, a decision is taken (Schwartz, 2010). Consumers give more attention to the rise of environmental protection activities. According to Dipietro *et al.*, (2013) and more recently, Stevens *et al.*, (2018) there is a growing interest in the use of environmental practices in the food service. Consequently, the public is inclined to

purchase organic products that are un-detrimental to the environment (Chen & Chang, 2013; Testa *et al.*, 2019).

Since the resource-intensive consumer's lifestyle and his/ her consumption-related behavioural choices are recognized as main drivers to unsustainable development. Therefore, motivations related to environmental causes and future of generations to come have been directing behaviours of modern consumers to more safe and lower environmental footprints (Kowalska *et al.*, 2021). Such pro-environmental behaviours include but not limited to the purchase of sustainable goods like including energy-efficient appliances, commodities made with recycled materials, products that are not tested on animals and organic food. Consumers are finding alternative ways to consumption, as is the case with organic food. The purchase of organic food has dual benefits first, improving one's health and second contributing to environmental protection (Saraiva *et al.*, 2021). Apart from the fact that the environmental influence is rather important to modern organic food consumers (Faletar *et al.*, 2021). Acting pro-environmental is not always the main reason behind getting engaged in pro-environmental behaviours. As in the case of organic food, consumers purchase organic food first for personal gains such as health and thereafter maybe for the environment. Going back to the literature, the main barriers to organic food purchasing were limited visibility, trust, choice, availability, knowledge and information, convenience, sensory cues, skepticism when it comes to labeling and organic promises (Gustavsen & Hegnes, 2020). As this research focus particularly on explaining organic food purchasing and its underlying reasons of behaving pro-environmentally. It could be assumed that most of the barriers stated above were overcome due to the context in where the study was administered. Thus, as the retail store offers local food beside exported one, shorter direct channels of sales and various environmental clues (discussed before). This should result in ultimately a stronger sense of environmental obligation to purchase organic food and finally a greater chance of organic purchase actually happening as of pro-environmental reasons.

The choice to study pro-environmental behaviour is critical since some so-called environmentally friendly behaviour is performed in fact for non-environmental related reasons. It is becoming a key goal to businesses, governments,

and the society at large to convince individuals in the society to act in a pro-environmental manner (Afsar et al., 2020; Morren & Grinstein, 2016). Therefore, this study intends to examine the influence of pro-environmental behaviour on the organic food purchasing through hypothetically assuming the following:

H5: There is a positive relationship between pro-environmental behaviour (representing the natural service scape) and organic food purchase behaviour.

- **Organic food and its implications on the environmental, social and economic sustainability**

The organic food market is considered one of the most promising food market sectors where, the European average per capita spending on organic food was EUR 55.8 in 2019 (Kowalska *et al.*, 2021). Moreover, interest in organically produced food has steadily risen around the world (Kushwah *et al.*, 2019). Globally, the market is growing day by day along with the organic farming that is increasing and is now practiced in most of the world countries (Kowalska *et al.*, 2021). Conventional agriculture is changing to sustainable agricultural practices for producing organic food. Accordingly, understanding the grounds of such growth and increase is seen critical as of the potential of that market of becoming a genuinely mainstream market. The rapid growth of the organic market had generated interest among consumers, businesses, as well as researchers (Kushwah *et al.*, 2019). Furthermore, as the market is dynamically changing worldwide, consumers currently want food free from chemicals, fertilizers, and pesticides. They demand organic food that is not only sustainable for their health but also environmentally friendly (Sharma & Singhvi, 2018). Recently, a lot of people have concern about the dietary value of their food and health (Dangi *et al.*, 2020). Their choice of food is based on the claim that organically produced food is healthier than conventionally produced ones (Rizzo *et al.*, 2020). The concerns for health and for the environment appear to be very strong reasons for purchasing (Eyinate *et al.*, 2021). Where, organic food is viewed as a safer alternative as it reduces chances of being ill due to pesticide residues. This was backed up in the literature with previous studies supporting that

health, availability and education positively influence the consumer's attitude towards purchasing organic food.

Within the organic food context, the majority of consumer's purchase of organic food due to the belief associated with the food uniqueness in comparison to conventionally grown food (Nguyen *et al.*, 2019). Their preference is based on the general perception that organic food has more needed characteristics than conventionally produced alternatives. In addition to, safety, health and environment factors, there are several other characteristics that influence the consumer's purchase decision like taste, appearance, freshness, colour and other sensory characteristics (Eyinade *et al.*, 2021). Additionally, purchase decisions are influenced by social, economic, cultural and other factorial contexts (Dangi *et al.*, 2020; Eyinade *et al.*, 2021).

From an economical perspective, pollution and environmental degradation is mainly the result of economic growth. Such issues have led to the increasing demand for organics (Teoh and Gaur, 2019). Consequently, it is assumed that the niche market of organic food is at the verge of a boom. In the last few years organic food availability in the market has increased leading to significant developments in the economy. In a sense, the organic market offers nations various social, cultural, environmental and economic benefits (Morshedi *et al.*, 2017 cited in Dangi *et al.*, 2020). As a proof is the rapidly growing global market of certified organic products over the past period. From the social perspective, policymakers, producers and retailers benefit by adjusting their strategies based on the changing demands in the market. Organizations are now moving towards sustainability to stay competitive in the market. Also, governments and organic food interest groups would strengthen their activities due to the increase in organic food supply. Besides, marketers would benefit through promoting the environmental welfares of organic food capitalizing on the consumers desire to eat healthy. In addition, consumer's awareness accelerates by directing all advertisements, promotional campaigns, social media and subjective influence towards the adoption of organic food.

Talking about awareness, according to Eyinade *et al.*, (2021) consumer's awareness towards organic foods is mainly high in America and Europe

where, the market is comparatively well developed to other regions of the world. But generally speaking, the market is growing in all regions of the world and the demand on organic food has increased remarkably in both developed and developing countries. This is as consumers are becoming more conscious about their health as previously mentioned (Kushwah *et al.*, 2019). Considering Egypt specifically as it is the context as in where this research study is administered. It could be stated that the market of organic food is at nascent stage where, the majority of people are unaware of the benefits and environmental issues associated with the products (Issa *et al.*, 2018). This point sheds the light on the study's importance as consumer's understanding of organic food is extremely important in influencing the decision-making purchase process (Eyinade *et al.*, 2021). Within the Egyptian context, consumer's understanding is vital in two respects. First, there is a large segment of potential consumers that are not properly informed about organic food. Second, individuals who are informed may have a general knowledge about organic food but, not sufficient facts distinguishing its attributes. In the age of social commerce and the communication of social networking sites, consumers are not always informed regarding organic food benefits (Lin *et al.*, 2020). Consequently, social commerce and organic food characteristics have to interact together to drive purchase intentions of organic foods via social commerce. So, despite people being curious and attracted to organic food due to reasons discussed above. Yet, this interest is not translated into purchase (Adel *et al.*, 2021; Aitken *et al.*, 2020). Therefore, this research study is an interesting opportunity in light of the organic food market.

Concerning the environmental status in Egypt, conventional agriculture is widely used to overcome the food scarcity where, risks of water scarcity and food insecurity along with a significant rise in population create serious challenges to Egypt's agricultural sector. Such challenges in turn create environmental, social and economic problems. The Egyptian population is expected to be between 104 and 117 million by 2030 such increase requires an increase in the supply of water and food (El-Essawy *et al.*, 2019). Furthermore, agriculture and food production in Egypt is in danger. This is where the Egyptian strategies are affected and a shift towards sustainable

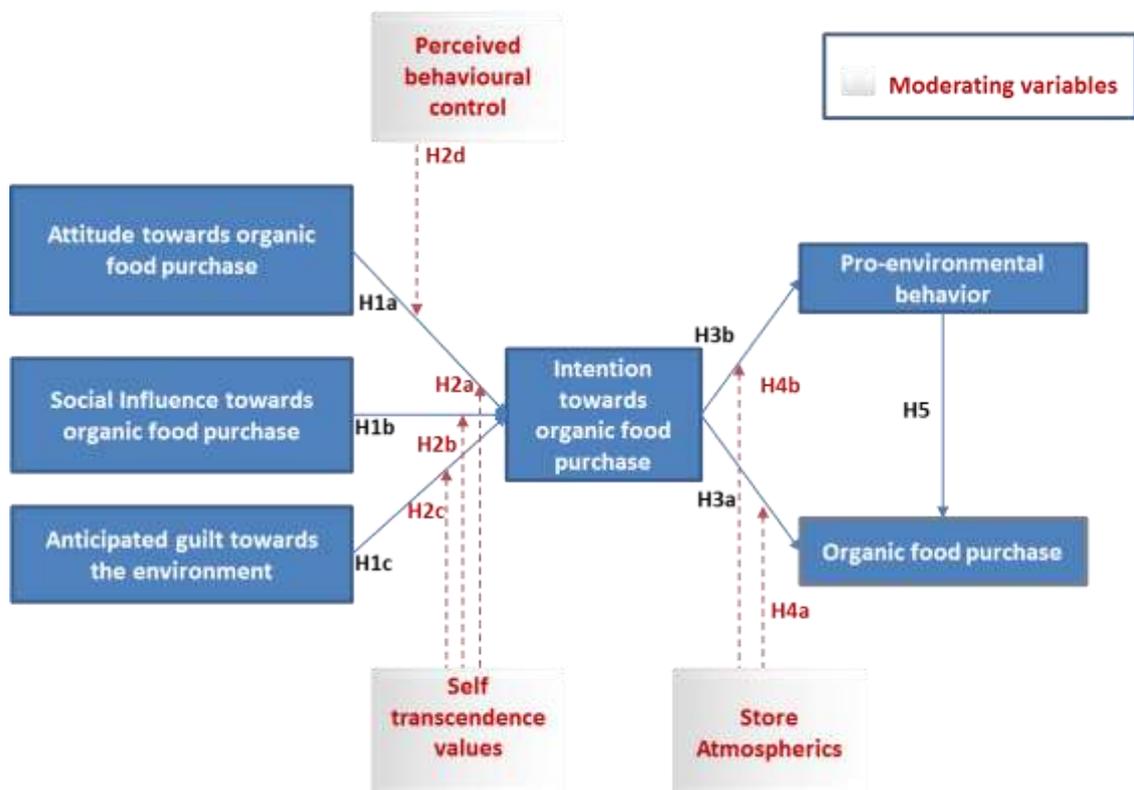
food solutions is required. Add to this, the vagueness of the sustainability of a substantial number of land reclamation projects in Egypt (El-Essawy *et al.*, 2019). All of that combined threaten the natural resources due to unsustainable practices. Consequently, it is seen necessary to consider other sustainable solutions to solve such food problems from economic, social and environmental aspects within the framework of sustainable development.

Socially, individual's changing food habits and trends motivates attitudes and food choices in the society (Jiumpanyarach, 2018). Moreover, societal attitudes are highly influenced by government regulations that currently favor and support organic farming whether in urban or rural areas. Where, strong regulations benefit both producers and consumers from an economic and social status. Furthermore, people are influenced by their environments with things such as their choices of food. Since, societies are now moving towards motivations of health, environment, convenience and social responsibility. Therefore, organic food demands are rising benefitting the goal of environmental sustainability. Such rise determines market sustainability from an economical, environment, marketing and social perspectives. In other words, Individuals' attitudes, behaviours and preferences determine which products will expand in present and future markets. An example is the sustainable agricultural markets supplying healthy organic food due to demands of new generations of consumers in the societies.

Economically, agriculture is often said to be the engine of economic growth (Leakey, 2018). So, the sustainable alternatives addressing organic food consider the situation from holistic approach taking in to account the poverty of farmers, the social situation and land degradation. Such alternatives encourage an integrated framework that addresses the complex environmental, social and economic constraints. Thus, organic food and its processes could be perceived as engine of economic growth and promoter of social justice due to its positive impacts on the environment, economy and society.

Based on the research theoretical framework (where all the theories underpinning the research topic lie) and the assumed relationships between the key

variables studied, a conceptual framework is designed. On the one hand, the conceptual framework describes the relationships (based on the gaps in the literature) between the variables identified for the study. On the other hand, the theoretical framework provides a general representation of the relationships between variables in a given studied phenomenon. The conceptual framework symbolizes the specific direction that the research undertakes. It helps the researcher with demonstrating ideas on how the research problem would be tackled, understood, studied and explained. Accordingly, the current conceptual framework targets consumer's organic food purchase behaviour as a result of pro-environmental behaviour within the Egyptian context. Additionally, it aims to merge the service-scape phenomenon within the organic food retailing to understand its effect on the



consumer's organic food purchase behaviour. Figure (2.8) shows the proposed conceptual model.

Figure (2.8): The Proposed Conceptual Model, researcher's own creation

2.11. Summary

The current chapter illustrated that it is not possible to predict pro-environmental behaviour using a single theory. Therefore, it was important to understand the applicability of different consumer behaviour theories on organic food purchase within an environmental domain to be able to choose the combination that best fits the purpose of the research. For the scope of this research, the following theories were chosen for understanding the antecedents that best predict organic food purchase as a result of pro-environmental behaviour: The service-scape model, The Theory of Planned Behaviour and Schwartz's Refined Value Theory. This integrative framework enables the researcher to identify the best antecedents of organic food purchase as a result of pro-environmental manner and to analyse the different reasons behind the consumer's organic food decision making under the pro-environmental behaviour umbrella.

The researcher took into consideration Bitner's (1992) suggestion and decided to address and study the different effects of the multi-dimensional service-scape (social and natural) as a boost to the physical dimension. The service-scape was seen as fitting this research domain as the physical dimension was considered in the store's atmospherics, the social dimension was considered in the social influence and the natural dimension was considered in the self-transcendence values, anticipated guilt and pro-environmental behaviour. The choice of the Theory of Planned Behaviour was a focal pillar to better predict organic food purchase decisions resulting from behaving in a pro-environmental manner. This is due to the different roles that each variable in the theory plays during the predictability of such attitude-intention-behaviour relationships. Adding on, the theory offers an opportunity of add and/or alter variables to better fit the scope of each research study. Accordingly, the researcher altered the social norms construct and added a few more antecedents (anticipated guilt, self-transcendence values and store's atmospherics) to enhance the depth by accounting for more variance, thus improving the predictive power of the model mainly from a pro-environmental perspective. The use of the refined value theory in a moderation role in the present study fitted perfectly with the attitudinal individual organisms, coordinated social interaction and welfare. This resulted in understanding the complicated psychological

processes related to organic food purchase decision within a pro-environmental framework.

Also, this chapter emphasizes the main arguments found in the literature of the organic food purchasing behaviour and the pro-environmental behaviour literature. The research will extend the Theory of Planned Behaviour and explore the service-scape phenomena. Purchasing organic is seen among the most popular activities to reduce the negative impact on the environment (Tandon *et al.*, 2020). Within the organic food context, attitudes account for more than 50% of the variance in pro-environmental behaviour making it almost the most powerful predictor (Le & Nguyen, 2022; Zhou *et al.*, 2013). On the contrary, other researchers debated the inconsistency of the attitude results. In view of that, a lot of the results gained from the past literature are confusing and indecisive suggesting a gap in the present context and implying the need for further investigations.

The social influence construct in this research first highlights the significant role social norms has on predicting one's pro-environmental behaviour. Since there is an increasing interest in the environmental practices, especially in the food industry, there is a growing demand on organic food (Borsellino *et al.*, 2020). On the same notion, the second influence is from the social actors within the purchase environment and/or during the purchase situation. There are growing social pressures to act in an environmental manner and adapting a more sustainable lifestyle (Elalfy *et al.*, 2021). Moreover, academically little research has attempted to study the guilt effect on behaviour. More precise, more effort is needed to explore the effect of the anticipation of guilt on pro-environmental behaviour and mainly the organic food purchase as there is a weak body of knowledge available about this topic (Chandra, 2018; Rezvani *et al.*, 2017). Furthermore, there is a gap in the literature when addressing the purchase behaviour mainly the organic one from the values point of view (Chekima *et al.*, 2017; Talwar *et al.*, 2021). The literature is indecisive about the ways values can sway an individual towards behaving pro-environmentally during the organic food purchase situation where, results seem inconsistent. Accordingly, there is an overseeing to the value – behaviour link limiting the available knowledge in the literature (Katz-Gerro *et al.*, 2017).

Considering the organic food purchase behaviour, universalism and benevolence values are shown to significantly moderate the attitude – intention relationship (Olsen & Tuu, 2021). On a different note, there is an adequate amount of links between values and social influence within the social psychology research (Sargisson *et al.*, 2021; Thøgersen *et al.*, 2016). But others like Loebnitz and Aschemann-Witzel (2016) stated that these values could be overwhelmed by social influences stressing on a no/ weak values effect on the social influence - intention relationship. Therefore, there is a lot yet to be examined for a deeper understanding of the role of values, more precisely the expression of the environmental related ones on the intention to purchase organic food within the social context (Nguyen *et al.*, 2019). From another perspective, values and their impact on affective emotions such as anticipated guilt on pro-environmental behaviour like organic food purchasing are scarce and not discussed successfully (Zelenski & Desrochers, 2021). Nonetheless, the literature related to the circular nature of values and its underlying dimensions is stagnant. More research needs to be added to the value literature under the consumer organic purchase behaviour umbrella. In addition, being a pro-environmentalist is not an easy task because behaving in such a manner may be hindered by many obstacles (Williams *et al.*, 2021). Perceived behavioural control influences the consumer decision making process. A lot of researchers approved the moderation role that the perceived behavioural control plays on the attitude-intention relationship (Hagger *et al.*, 2022). However, the interesting insight is in the novelty and ambiguous status of the organic food industry in the Egyptian context as a whole and its relation to behaving pro-environmentally in specific. Therefore, studying such a variable is seen as vital. In this research examining the environmental intention to purchase organic food is proxy for purchasing organic food as a result of pro-environmental behaving. Yet, it is not clear yet in the literature how the environmental purchase intention is established (Ahmed *et al.*, 2021; Chekima *et al.*, 2017). Therefore, this research study will be narrowing the gaps that are still there in the literature.

The environmental cues in consumer behaviour and their influence on the purchase decision making are of extreme importance to study. Store's atmospherics are important motivators for store choice and hence food choice (Panzone *et al.*, 2021). There is a stream of research expressing the atmospherics and behaviour

bonds (Patil *et al*, 2021). In certain situations, such situational environmental forces could be more powerful or even contradict the consumers' own values during the decision making (Linder *et al*, 2021). Based on that, formulating and manipulating these hints is vital for provoking the consumer and increasing the probability of purchase (Lindberg *et al.*, 2018). Very little effort has been exerted in researching the sensory appeal's role in the organic food purchase decision and mainly in the Egyptian context where the topic is still fresh. Therefore, studying the moderating role of the store's atmospherics on the intention- behaviour relationship contribute to the understanding of the importance of food-scape by amplifying how these environmental atmospherics affect the purchase behaviour. As a wrap, consumers purchase organic food for reasons including and going beyond environmental concerns (Luzio & Lemke, 2013; Pang *et al*, 2021). That is why understanding the variables that best predict organic food purchase as a result of pro-environmental behaviour is critical.

3. Research Methodology

This chapter plays a key role in the development of this research as it presents all the important methodological aspects. The main objective of the chapter is to demonstrate the validity, reliability and suitability of the research methodology, methods and research processes used to reach the research aim. Moreover, the logic behind the selected methodological techniques addressing the research problem and answering its questions. The research methodology is a step towards the empirical study by which the research hypotheses can be examined and explaining how this study is conducted and how data are analyzed. The chapter starts by giving outlines about the process of the study's relevant research philosophy, approach and strategies; as well as the appropriate analysis techniques used to test the hypotheses. Furthermore, the data collection methods and sampling techniques are demonstrated. The chapter illustrates the validation of the research variables by showing the outcome of informal meetings conducted with academics in the consumer behaviour field, environmental professionals and experts in organic food industry and the literature review conducted in the previous chapter. Additionally, the chapter describes the questionnaire and its design beside the preliminary pilot study and its reflection. A table of measurement scales highlighting variables definitions and scales is presented and lastly, the research ethics are represented.

Literature has shown that the steps followed by social science researchers are nearly the same (Creswell, 2009). In the current research, the steps undertaken are similar to most research processes. *Figure (3.1) represents the chapter map.*

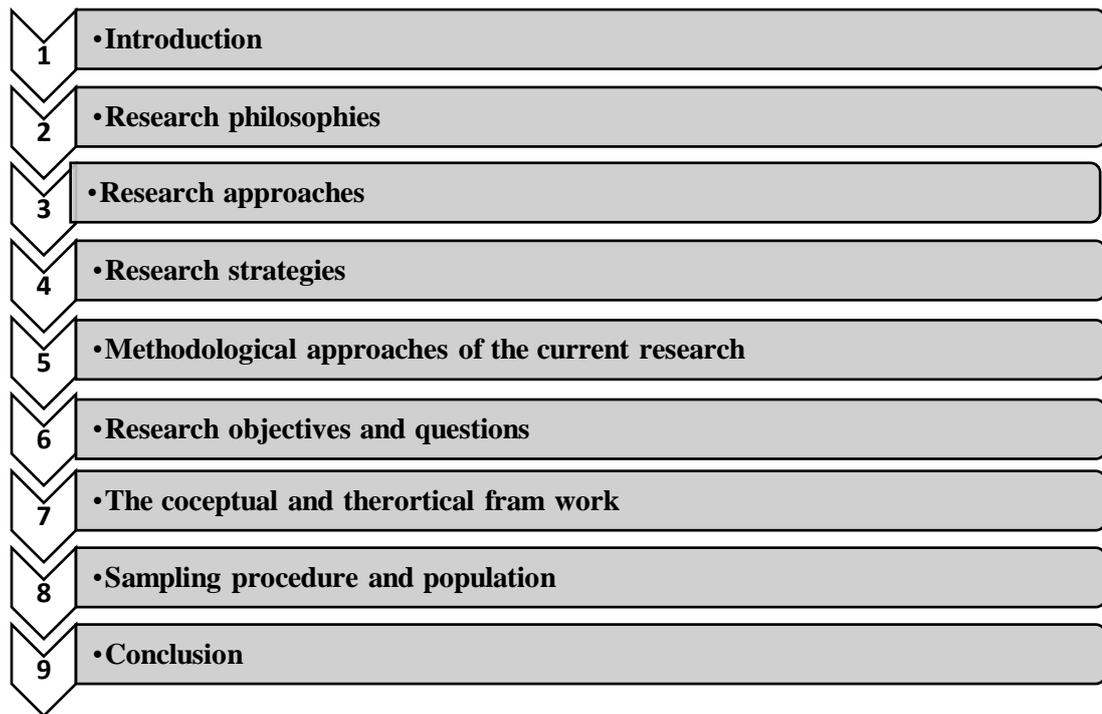


Figure (3.1): The Research Methodology Chapter Map

3.1. Research Philosophy

The term research philosophy refers to a system of beliefs and assumptions about the development of knowledge. The research philosophy that a researcher embraces indicates how he/she views the world. Furthermore, the researcher's worldview is mainly concerned with their interpretation of the relationships and how they are being developed (Creswell, 2014). At every stage in the research there will be assumptions that guide the research approach, strategy and methods used. Moreover, these indications shape the research, its importance, the questions, the methods used and the interpretation of the findings (Saunders & Townsend, 2016). The assumptions include human knowledge (Epistemological assumptions), realities encountered in the research (Ontological assumptions) and the extent and ways the researcher's own values influence the research process (Axiological assumptions). The Epistemology concerns assumptions are about knowledge, what constitutes acceptable, valid and legitimate knowledge and how one can communicate knowledge to others. Moreover, Ontology refers to assumptions about the nature of reality. Furthermore, Axiology refers to the role of values and ethics within the research process. The following section discusses the various ideological dimensions for choosing the appropriate research philosophy.

3.1.1. Objectivism versus Subjectivism

Objectivism incorporates the assumptions of the natural sciences. It argues that the social reality of research is external to the researcher and others. This approach suggests that the social world is made up of solid, granular and relatively unchanging things. It includes major social structures into which individuals are born. On the other hand, subjectivism incorporates assumptions of the arts and humanities, asserting that social reality is made from the perceptions and consequent actions of social actors (Burrell & Morgan, 1979; Zolfagharian *et al.*, 2019).

3.1.2. Regulation versus Radical Change

Another dimension is the political or ideological orientation of researchers towards the social world he/she investigates. This ideological dimension has two opposing poles. On one hand, regulation researchers work within the regulation perspective of societies and human behaviour assuming an underlying unity and cohesiveness of societal systems and structures. On the other hand, radical change researchers approaching problems from the viewpoint of overturning the existing state of affairs (Burrell & Morgan, 1979; Zolfagharian *et al.*, 2019).

Merging the objectivist–subjectivist continuum with a regulation–radical change continuum creates a matrix of four paradigms representing different ways of viewing the social world summarized as follows:

- The *functionalist* paradigm assuming that there is a stable and objective reality that is knowable through empirical observation.
- The *interpretive* paradigm assuming a world that tends toward stability, but is largely the product of shared subjectivism where the world is socially constructed or resides within widely shared assumptions.
- The *radical structuralism* paradigm assuming an objective reality tending towards entropy, conflict, and change. The world is viewed as a product of ideologically rooted socio-economic contradictions.
- The *radical humanism* paradigm assuming world tending towards radical change where the knowledge is largely subjective and resulting from an ideology promulgated by powerful social actors (Suddaby, 2016).

Therefore, there are many research philosophies that serve as a guide for various studies. The choice of the research philosophy is based on the way the researcher thinks about the development of knowledge (Saunders & Townsend, 2016). Accordingly, in business and management research, the four major research philosophies are as follows:

- **Positivism:** Relates to the philosophical stance of the natural scientist and entails working with an observable social reality to produce law-like generalizations. Researchers adopting a positivist philosophical stance use scientific methods to develop knowledge. This emphasizes strictly scientific empiricist methods designed to yield pure data and facts uninfluenced by human interpretation or bias. The development of knowledge is based on observations and measurements of the objective reality that exists around individuals (Creswell, 2014). It directs efforts to construct, express and verify hypotheses in operational terms. This stance uses existing theories to develop hypotheses that are to be tested then confirmed or rejected in order to develop a theory that can be further tested (Saunders & Townsend, 2016). Hence, it is usually characterized by quantitative approaches and can be converted into mathematical formulas proposing and expressing relationships among variables. In addition, research is essentially value-free and as objective as possible so that social phenomena exist separate from social actors. In positivism, the evaluation is rigor, replicable, dependable on observations and allows reliability and generalizability. Therefore, models developed are investigated by means of a fixed, prearranged research design and unbiased measures of deductive reasoning.
- **Realism:** Is a philosophical stance that argues that the truth is what the senses show as reality and that objects have an independent presence than of the human mind (Saunders & Townsend, 2016). There are two different forms of realism; the direct one that indicates that what you see is what you get and that what is experienced through the senses portrays the world accurately. The critical one debates on explaining what one sees and experiences, in terms of the underlying structures of reality that shape the observable events. So, what is experienced through the senses is nothing but images of things in the real world but not the things (Saunders & Townsend, 2016). According to Sekaran and Bougie, (2016),

the realism philosophy is an intermediary philosophy where there is an objective truth but it cannot be observed or reached objectively.

- Interpretivism: Emphasizes on a worldview that believes that humans are different in their role as social actors from physical phenomena as they create meanings (Saunders & Townsend, 2016). This stance argues that human beings and their social worlds cannot be studied in the same way as physical phenomena. Interpretivists are involved in how people's views of the world result from understanding how and why events take place. Therefore, the research methods are more qualitative in nature and data are collected through focus groups and unstructured interviews. Unlike the positivism approach, interpretivists emphasis understanding a specific case rather than results being generalized (Sekaran & Bougie, 2016).
- Pragmatism: Strives to reconcile objectivism and subjectivism, facts and values, accurate and rigorous knowledge and different contextualized experiences. This is done by considering theories, concepts, ideas, hypotheses and research findings not in an abstract form, but in terms of the roles they play as instruments of thought and action. The pragmatism philosophy does not define specifications for the good research. On the contrary, the research is evaluated based on the improvements. Such improvements can be applied using its findings in the reality, focusing on the link between theory and practice.

Table (3.1): Summary of the Above-mentioned Philosophies

Ontology (nature of reality or being)	Epistemology (what constitutes acceptable knowledge)	Axiology (role of values)	Typical methods
Positivism			
Real, external, independent One true reality (universalism) Granular (things) Ordered	Scientific method Observable and measurable facts Law-like generalisations Numbers Causal explanation and prediction as contribution	Value-free research Researcher is detached, neutral and independent of what is researched Researcher maintains objective stance	Typically deductive, highly structured, large samples, measurement, typically quantitative methods of analysis, but a range of data can be analysed
Critical realism			
Stratified/layered (the empirical, the actual and the real) External, independent Intransient Objective structures Causal mechanisms	Epistemological relativism Knowledge historically situated and transient Facts are social constructions Historical causal explanation as contribution	Value-laden research Researcher acknowledges bias by world views, cultural experience and upbringing Researcher tries to minimise bias and errors Researcher is as objective as possible	Retroductive, in-depth historically situated analysis of pre-existing structures and emerging agency. Range of methods and data types to fit subject matter
Interpretivism			
Complex, rich Socially constructed through culture and language Multiple meanings, interpretations, realities Flux of processes, experiences, practices	Theories and concepts too simplistic Focus on narratives, stories, perceptions and interpretations New understandings and worldviews as contribution	Value-bound research Researchers are part of what is researched, subjective Researcher interpretations key to contribution Researcher reflexive	Typically inductive. Small samples, in-depth investigations, qualitative methods of analysis, but a range of data can be interpreted
Postmodernism			
Nominal Complex, rich Socially constructed through power relations Some meanings, interpretations, realities are dominated and silenced by others Flux of processes, experiences, practices	What counts as 'truth' and 'knowledge' is decided by dominant ideologies Focus on absences, silences and oppressed/repressed meanings, interpretations and voices Exposure of power relations and challenge of dominant views as contribution	Value-constituted research Researcher and research embedded in power relations Some research narratives are repressed and silenced at the expense of others Researcher radically reflexive	Typically deconstructive – reading texts and realities against themselves In-depth investigations of anomalies, silences and absences Range of data types, typically qualitative methods of analysis
Pragmatism			
Complex, rich, external 'Reality' is the practical consequences of ideas Flux of processes, experiences and practices	Practical meaning of knowledge in specific contexts 'True' theories and knowledge are those that enable successful action Focus on problems, practices and relevance Problem solving and informed future practice as contribution	Value-driven research Research initiated and sustained by researcher's doubts and beliefs Researcher reflexive	Following research problem and research question Range of methods: mixed, multiple, qualitative, quantitative, action research Emphasis on practical solutions and outcomes

Table (3.1): Comparison of the five research philosophies in Business and Management research, Saunder et al, 2009 p: 136, 137.

The positivism philosophy is the approach to be considered within this study since the research is based on testing hypotheses developed according to different theories with variables constructed after a review of literature and related studies. Furthermore, the research aims to assess cause-and-effect relationships to better understand certain external independent phenomena and so positivism philosophical stance is used. Also, the researcher wants no reflectivity on the topic under study and sees this research as an unattached valueless study.

3.2. Research Approaches

The approach choice is based on the researcher's philosophical stance and presents the choice of the data collection method and procedures within the framework. Later, these selected choices help determine the required analysis, relevant responses for the questions, appropriate sampling technique and size, variable operationalization and measurement for the conceptual model (Creswell & Clark, 2017). The research methodological approaches are mainly:

- The *deductive approach* involves the development of a theory and hypotheses that are then subjected to rigorous empirical tests through a series of propositions. The laws present the basis of explanation, allow the anticipation of phenomena, predict their occurrence and therefore permit them to be controlled. A deductive approach is typically used in quantitative research and is seen as moving from the universal view to the particular towards hypotheses testing (Saunders & Townsend, 2016).

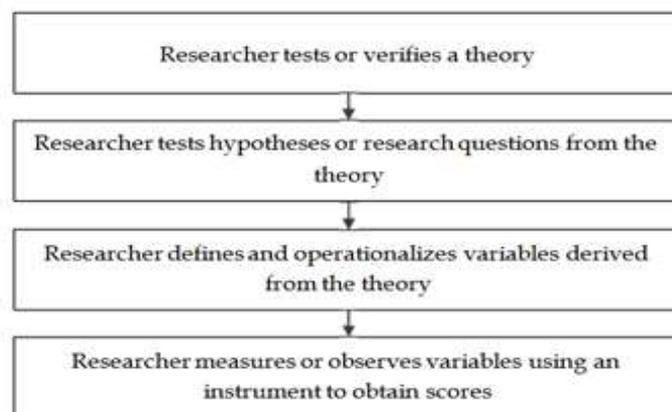


Figure (3.2): The Deductive Approach Used in Quantitative Research

- *The inductive approach* theory follows data rather than vice versa. Data are collected and analyzed only after that a theory is developed. This approach is based on a reasoning approach that enables a cause-effect link between variables. An inductive approach is typically used in qualitative research and is seen moving from specific to universal view towards theory building (Saunders *et al.*, 2015).

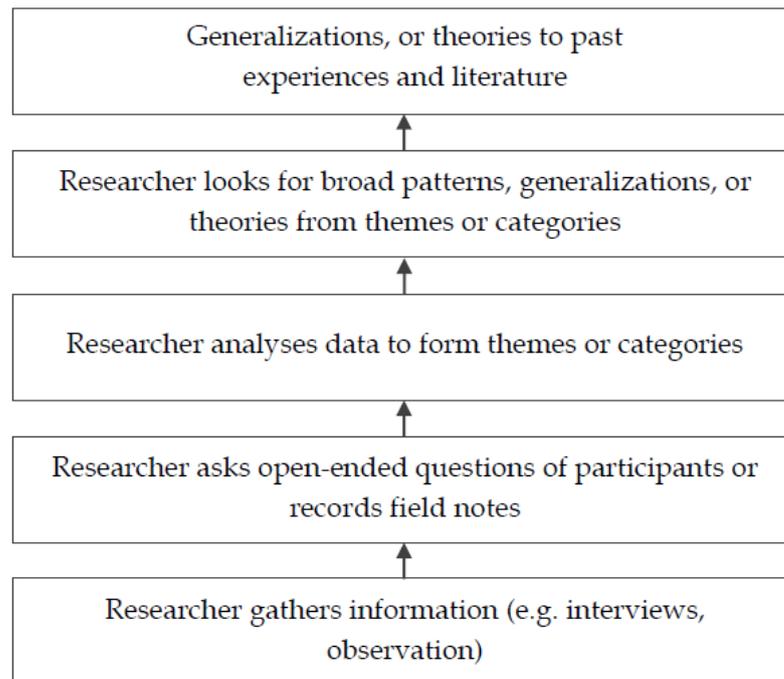


Figure (3.3): The Inductive Logic of Research in a Qualitative Study

According to the aim and philosophy of the research study, it is seen that a deductive quantitative approach will work best. This relates to testing different relationships between variables to understand the organic food/pro-environmental purchase behaviour through the deductive reasoning approach and theories extension. Such approach focuses on providing a more logical sense to the attitude-intention-behaviour gap that is found in the literature.

3.3. Research Strategies

The chosen research philosophy and approach are the stepping stones for the researcher's selection of the way of investigation. The two most common are qualitative and quantitative. First, qualitative research is used to explore and understand the meaning to a social or human problem assigned by individuals and

groups (Creswell & Clark, 2017). On the contrary, quantitative research is used to understand the relationships between various constructs. This is done by quantifying and analyzing the data collected (Sekaran & Bougie, 2016). Moreover, researches that use both quantitative and qualitative are called to be following a mixed methods approach (Saunders & Townsend, 2016). According to Saunders *et al.* (2015), the choice of the research strategy depends on the research questions that are being asked where the strategy provides the plan by which the researcher will answer the questions. Table (3.2) discusses some of the research strategies that are commonly used in conducting research.

Table (3.2): Most Common Research Strategies

Strategy	Definition
Experiments	<ul style="list-style-type: none"> ▪ Answer the “how” and “why” questions. ▪ Involve samples from known populations. ▪ Works best with measuring a small number of controlled variables. ▪ Associated more with natural sciences than social science research.
Surveys	<ul style="list-style-type: none"> ▪ Answer the “who”, “what”, “where”, “how much” and “how many” questions ▪ Involve large amounts of data from large populations. ▪ Time consuming in term of designing and piloting questionnaires and structured interviews (in an understandable and unbiased manner). ▪ Provide data that can be statistically analyzed, controlled and compared. ▪ Associated more with business and management research.
Case Studies	<ul style="list-style-type: none"> ▪ Tend to understand complex emerging phenomena and tackle areas that are still in the understanding, discovery and description stage. ▪ Allow the retention of holistic and meaningful characteristics of real-life events.

	<ul style="list-style-type: none"> ▪ Contribute to the knowledge of a particular phenomenon through empirically investigating it using multiple sources of evidence.
Grounded Theory	<ul style="list-style-type: none"> ▪ Theory emerges (grounded in) from the data collected during the study. ▪ Uses previously existing theoretical frameworks and data to state whether the theory does/does not apply to the phenomenon under investigation. ▪ Associated perfectly as a base for new theories.
Ethnography	<ul style="list-style-type: none"> ▪ Relies on multiple detailed observations of a phenomenon within the context in which it occurs. ▪ Collects primarily observational data seeking to understand social processes in their naturalistic setting over an extended period of time.
Action Research	<ul style="list-style-type: none"> ▪ Finds effective and systematic solutions to problems confronted in everyday lives. ▪ Uses continuing cycles of investigation to reveal effective solutions to issues and problems experienced in specific situations. ▪ Builds a body of knowledge that enhances practices and increases the well-being of people involved (Stringer, 2013).

Following the research strategies are various techniques for data collection. An appropriate selection is considered as a key choice for a valid research design. The following gives an overview of the relevant instruments to the current research.

- *Literature review* is a written document presenting logically argued cases founded on a comprehensive understanding of the current state of knowledge about a topic of study (Machi & Mc-Evoy, 2016).
- *Questionnaire* comprises a set of questions to be asked to participants in a survey research in efforts to provide an efficient approach to gather data of interest to the researcher. This instrument's design needs extensive planning,

reading and exploratory pilot work as it can be administered in a variety of modes (Oppenheim, 2000).

Since the research objective is to provide a better understanding of key antecedents that best predict organic food purchase within the pro-environmental domain, the literature review and accordingly the structured questionnaire will assess the attitude-intention-behaviour relationships. Moreover, it will investigate specific antecedents from different pro-environmental behaviour and consumer behaviour theories to understand the organic food purchase/pro-environmental behaviour relationships. After deciding on the research strategy and technique comes the choice for the type of data that will be collected. The research choice depends on whether the methodology followed is quantitative, qualitative or mixed. Accordingly, the option would be one of three options available in the table as follows:

Table (3.3): Research Choices

Choice	Situation
Mono choice	Is when the data needed to be gathered are of a single type.
Mixed choice	Is when precise data or datasets are to be gathered.
Multi choice	Is when the research is divided into categories and sub-categories with each requiring a certain dataset.

Another important question the researcher needs to answer is whether the study will be a "snapshot" taken at a particular time or a diary representing events over a given period of time (Saunders *et al.* 2015). The time horizon of the research along with the research choice of the data collection ensures that the research is on the right track to achieving its aim. The following is a table comparing between the two available timeframe options for research.

Table (3.4): Comparison between Cross-sectional and Longitudinal studies, researcher own creation

Cross-sectional studies	Involves the study of a particular phenomena at a particular time. Often employs survey strategy, however may also use qualitative methods.
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Longitudinal studies	Involves the study of change and development generating massive amounts of rich data. Basically answer the: has there been change over a period of time question.
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The researcher is studying a novel concept in the Egyptian market and merging it with a new phenomenon and so a cross-sectional data collection is seen more appropriate.

3.4. Methodological Approaches of the Current Research

Based on the discussion above, the following section summarizes the methodological approaches, processes, strategies and data collection techniques adopted for this research study. But first, a quick revisit to the research objectives and questions will suggest a logical linkage to how an appropriate research design selection was done.

3.4.1. Conducting the Research Methodology of the Current Research

This research is based on studying the current situation through observing a vast number of variables that affect the organic food purchase behaviour. This will be done by conducting a strong literature review besides considering the opinions and views of experts and academics in the field. As a result, the research clarifies the “what” variables questions through extending various theories and variables related to the environmental psychology, consumer behaviour and organic food.

3.4.2. The Research Philosophy

In this thesis, the positivism philosophy is the standpoint guiding the research, where the foundations of behavioural and value theories are merged to study the consumer’s pro-environmental behaviour as the core approach to this research. This positivist approach is seen as the best fit for this research for many reasons. As stated before, hypotheses were developed and empirically tested based on theories such as the Theory of Planned Behaviour (TPB), Schwartz’s theory of basic values and constructs of other consumer and environmental theories and organic food studies. The constructs were clearly developed as per reviewing the literature. Accordingly, it was considered that the objective truth was represented with the theories and variables used to develop the research hypotheses. In addition, as the philosophical epistemology of positivism believe that the goal of research is to describe phenomena, observe and objectively measure them, test the cause-and-effect relationships and

create law-like generalizations through scientific methods. Accordingly, such philosophical stance fits perfectly the identification of the organic food purchase antecedents and the examination of the service-scape phenomenon within the present scene. In view of that, the positivism philosophy is used here as it is believed that reliability of observations and generalizability are based on developing a model and testing the constructs developed from literature by means of a planned research design, representative sample, a pre-developed scale and unbiased measure by using deductive reasoning. Also, from a positivist ontological perspective, to adequately understand the objective truth about the organic food purchase as a result of pro-environmental behaviour, it first needs to be observed and measured to consequently be interpreted, forecasted and controlled later. Axiologically the researcher is to be considered as a separate entity from the reality being studied. Consequently, it is a value-free research where the researcher is detached and has no value reflectivity on the topic under investigation.

A lot of previous studies whether within the same context or a different one using the theory of planned behaviour adapted the same positivist approach similar to this research. Here are a few recent examples: Shreevamshi *et al.*, (2022) who investigated the impact of green human resource management policy to make the employees environmentally concerned and improved the reputation of the organization. Also, Silva (2020) who addressed the millennials and what shapes their needs and desires. More specifically, the reproductive motivation was examined as an important aspect that drives Generation Y's environmental concern and attitude towards green purchasing behaviour. Moreover, He (2019) studied the effects of self-identity and personal norms on prospective tourists' pro-environmental behaviour. Within the organic food context, researcher as Jayasinghe (2020) used a positivistic approach in dealing with the impact of reference groups' recommendations on the attitude towards organic foods and purchase intention. Furthermore, NGUYEN (2021) studied the factors affecting consumer's actual buying behaviours towards imported organic food in Vietnam under the same philosophical stance. All such examples give strength to the researcher's choice for the philosophy of the current study.

3.4.3. The Research Approach

The current research aims to evaluate the model variables by thoroughly examining the relationships present among them. Consequently, the researcher decided that adopting a quantitative approach is best in addressing the research problem. The researcher realized that a deductive reasoning approach is the best used as it relies on the deduction, description and hypotheses testing of the attitude – intention – behaviour relationships towards the purchase of organic food within the pro-environmental context. Hence, aiding the research in gaining insightful knowledge about the nature of the investigated topic and guiding the research strategy by which the data were collected and tested. The literature supported the quantitative strategy choice by a pool of studies that used the same or similar approach when investigating the organic food, pro-environmental behaviour and parts of the service-scape dimensions. Some examples of previous studies that used deductive reasoning when studying organic food are: Curvelo *et al.*, (2019), Feil *et al.*, (2020), Rana & Paul, (2020) and Sultan *et al.*, (2020). Moreover, when it comes to studies that tackled Pro-environmental behaviour examples are like Brinia *et al.*, (2020), Salim *et al.*, (2021), Tamar *et al.*, (2020), Udall *et al.*, (2021). Furthermore, service-scape was discussed in studies like Andriani *et al.*, (2021), Lai & Chong, (2020), Pizam & Tasci, (2019), Zheng *et al.*, (2021).

3.4.4. The Research Strategy

Since the research used a deductive quantitative approach so, the data were collected, tested and numerically deducted. This was carried out in a planned systematic manner using statistical analysis techniques on a large representative sample of the population. The deductive reasoning creates meanings, confirms and validates hypothesized relationships which eventually contribute to theory. Moreover, various theories were studied to identify the research problem which was then formulated to test hypotheses and quantify leading to interesting findings. Constructs were considered reliable and based on well-structured theories. Since the goal of the research is to gain a better understanding of the antecedents that best predict organic food purchasing behaviour as a result of behaving pro-environmentally, a questionnaire survey conducted in the organic store explaining the consumer's organic food behaviour was seen as the best suited technique to answer the research questions and objectives.

From an academic stance, the results and interpretations of this research can significantly contribute to the limited literature on consumer behaviour associated with pro-environmental behaviour in general and organic food in specific. From a practical stance, relying on such quantitative outcomes will aid marketers and decision makers with tailoring marketing strategies and targeting and positioning plans to different segments. Also, the study could help with designing interventions, informative educational programmes and social marketing campaigns to promote individual pro-environmental behaviours and environmental protection tactics. That being said, all the other techniques that were stated earlier (case study, ground theory, experiment, ethnography and action research) were seen as not fitting the purpose of the research. Whether it is for the reflectivity or the inapplicability and insuitability of the technique with the nature of the study.

Based on the above, the researcher gathered data mainly from two sources: literature review and questionnaires.

- *Literature Review:* An initial literature review was conducted after the informal meetings that were done with academics in the field of consumer behaviour, environmental professionals and experts in the organic food industry. In order to be able to answer the research questions of the research, it was necessary to first conduct a literature review. An in-depth literature review was carried out providing an overview of consumer's pro-environmental behaviour in relation to organic food. In the literature review, the researcher attempted to demonstrate the importance of behaving in a pro-environmental manner. Furthermore, discussed the antecedents that predict the organic food purchase behaviour resulting from behaving pro-environmentally. Moreover, the researcher made an effort to present in the literature the effect of the multi-dimensional service-scape dimensions on the consumer organic shopping experience. Furtherly, the literature review revealed how antecedents as the attitude towards organic food, the social influence towards organic food purchase, and the anticipated guilt towards the environment can influence the intention and hence the purchase of organic food resulting from pro-environmental behaviour. Also, the moderation effect of the self-transcendence personal values discussed by Schwartz's refined value theory, the perceived behavioural control discussed in

the Theory of Planned Behaviour and the store atmospherics on the intention to purchase organic food. So, the researcher highlighted the gaps in the attitude-intention-behaviour relationships. Additionally, the literature review represented the service-scape concept and how its different dimensions affect the consumer purchase decision. Therefore, studying the service-scape in an all organic retail store demonstrated the novelty of the research by addressing issues that have not been addressed before. The literature concerning pro-environmental behaviour in general is somehow abundant especially in developing countries like Egypt. Therefore, the literature review ended by discussing the Egyptian environment and particularly relating all of the above variables to the Egyptian purchase patterns and behaviours. This was seen important as the researcher believes that the contextual aspects influence purchase behaviours. Likewise, such dimensions relate to the interpretation of the research results later.

Questionnaire Survey was developed following the literature review that was conducted. This was decided as the research had a definite purpose and there is a need to get quantitative results after the researcher knowing what exactly was required. Administered questionnaires were seen as the most suitable technique to collect the needed data. It contained a set of systematically organized structured questions with pre-determined response to get the needed information from participants. While preparing the literature review, the researcher realized the need of further explanation for the topic under study to be able to answer the research questions. This need resulted from the inconsistencies of researches results, the confusion between various variables and the limited literature concerning the Middle Eastern area. More knowledge is needed about the organic food in specific and the pro-environmental behaviours in general. The researcher's main objective was to fully develop a questionnaire suitable for assessing the variables that answer the research's questions. The researcher closely examined previous questionnaires used by researchers in the same area of consumer behaviour, pro-environmental behaviours and organic food. Some examples of which are: Elgaaied, (2012), Hooper *et al.*, (2013), Lindberg *et al.*, (2018), , Schwartz *et al.*, (2012), Moser (2016) and Zhou *et al.*, (2013). More recent studies that tackled the same areas are: Alzubaidi *et al.*, (2021), Gholamrezai

et al., (2021), Laureti & Benedetti (2018), Richter & Hunecke (2020). It was noted that these researchers developed questionnaires based on their own research purposes. None of these questionnaires fully met the requirements of this research. However, the researcher was guided by the work of various previous scholars in the development of the questionnaire for this study. The researcher used the work of various scholars with diverse scales.

Summing up, it could be argued that this research follows a positivism philosophy where, a deductive approach is used to understand the relationship between the research constructs through a quantitative survey implemented using pretested scales. This research study makes use of the quantitative analysis outcome results to fill gaps in the academic literature. Moreover it contributes to practice through helping out marketers, policy makers and other stakeholders.

As a preliminary step prior the quantitative approach, the researcher conducted some informal meetings with academics in the field of consumer behaviour as well as environmental professionals and experts in the organic food industry in Egypt. These meetings were targeted to validate and confirm the research variables gathered from the literature review. Also, better develop the questionnaire that is used for the quantitative data collection. As the organic food as a pro-environmental activity is somehow a novel concept to the Egyptian culture, most of the empirical work and studies were undertaken in other countries with little focus on Egypt. Add to this, the majority of theories and measurement scales used in this study were developed in Western countries. So, certain words, statements and terminologies might not be applicable to or have a different meaning in Egypt or to Egyptian respondents. As a result, the informal meetings conducted tackled these issues. Afterwards, a pilot study was done to further validate the variables and confirm the development of the questionnaire. Furthermore, the researcher's choice for the timeframe was a cross-sectional study time horizon. For the current research, it seemed appropriate to demonstrate a snap-shot of the consumer's shopping behaviour in an all organic grocery store.

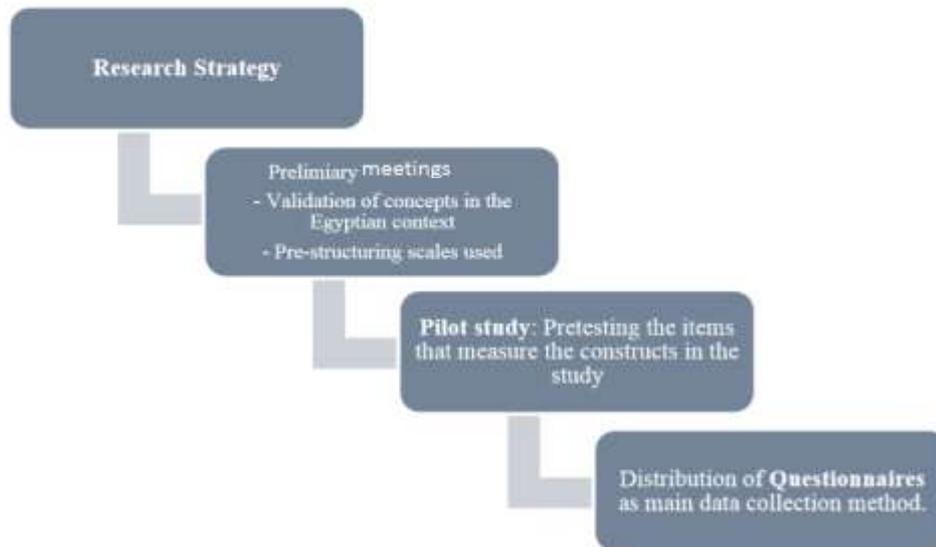


Figure (3.4): The Research Strategy, researcher's own creation

3.4.5. Sampling Procedure and Population

Before the data collection process, the researcher has to precisely decide on the target population and the sample technique used based on the purpose of the research. The following part is introducing the population and sample technique used for this study. The population is known as the total number of objects, subjects or individuals that fit in to a set of specifications and characteristics through which data can be collected and analyzed. Typically, gaining data about all members in a population is not an available option and usually very difficult (Fowler, 2013). Consequently, a target population (which is the group to which the research applies) has to be well defined. In this research case, the target population is the walk-in consumers of Fresh N Fresh, the organic grocery store, aging from 18 to 65 years or older. According to Saunders and Townsend (2016), the sampling techniques help researchers limit the amount of data needed by collecting data from specific elements of the population. The data collection limit is seen vital because of time and cost considerations. Moreover, the constraint of accessibility makes it impossible to collect data from all the possible population elements. The sampling techniques are divided into two main categories:

- Probability sampling is when each unit of the population has an equal chance of being selected. A representative sample of the population is one that is assumed to be the result of such a method of selection, but with the incidence

of an accurate and updated sample frame. Where, a sampling frame is defined as a list including all the target population units which the researcher can select the sample from for the research. Although the probability sampling representation of population allows the generalizability of data, the struggle for defining a sample frame makes it difficult to use such technique in business and marketing research (Bryman, 2016; Saunders & Townsend, 2016).

- Non-probability sampling is when some units or elements in the population are more likely to be selected than others. As in random selection was not used to select the sample (Bryman, 2016). There are many non-probability sampling techniques available, depending on the kind of data that is needed. Table (3.5) provides a brief explanation of the different types beside justification for the researcher’s choice of the sampling technique.

Table (3.5): The sampling techniques

Sampling technique	Justification
<i>Convenience sampling</i>	Chosen by the researcher based on accessibility and availability of the elements of the sample. Despite the fact that data’s output of a convenience sample is hard to generalize. Still, it is successfully used in social research as it is less costly and not time-consuming (Bryman, 2016).
<i>Snowball sampling</i>	Chosen when the researcher contacts some cases of the population and asks them to refer to other cases and the referred to cases are asked to recommend others and so on, hence the sample ‘snowballs’ (Saunders & Townsend, 2016). This type of sampling is considered a form of convenience sample because the elements of the population are difficult to identify and contact. Snowball sampling is mainly used with qualitative research rather than quantitative ones as there are fewer generalizability and external validity concerns with data’s output (Bryman & Cramer, 2012).
<i>Purposive or</i>	Chosen when the researcher uses his/her judgment while

<i>Judgmental sampling</i>	selecting cases that best answer the research questions at the time (Saunders & Townsend, 2016). This is because the researcher's reasoning for choosing is based in on the research questions and objectives (Sekaran & Bougie, 2016). Furthermore, such sampling technique is best used when the number of individuals with the required knowledge is limited.
<i>Quota sampling</i>	<p>Chosen when the researcher's sample symbolizes the population as the variability in the sample for various quota variables is the same as that in the population (Saunders & Townsend, 2016). In other words, a quota sample reflects the population in terms of different portions of people according to certain criteria (Bryman, 2016).</p> <p>The selection of elements within each 'strata' is non-random and is left to the researcher. That is why some researchers argue that such quota technique is almost as good as the probability sampling technique being less costly, easily employed and easily managed (Bryman, 2016). On the contrary, advocates of probability sampling present counterevidence. They state that even if the sample reflects the population in terms of characteristics still, the sample is considered biased due to the fact that it is left for the researcher's choice of what constitutes a sample. Accordingly, such note enforces limits to the generalizability of data's output.</p>

Considering the present study, non-probability convenience sampling was chosen as the most suitable form of sampling techniques to select this study's sample. This choice was made based on the nature of the research and the data needed from the population under study since, it is quantitative research with a population that cannot be well defined. More precisely, all eligible Egyptian consumers walking in the organic food grocery store are of interest to the researcher.

Moreover, as there were no referral cases or recommendations from consumers as it was not the case here, the snowball technique was seen as irrelevant. Furthermore, the researcher wants no self-reflectivity on the study as mentioned in the philosophy of the research. Accordingly, the purposive sampling technique did not match the criteria as the researcher wanted no judgment on the wide range of available consumers during the selection phase. Likewise, there was no grouping required within the sample as all the consumers were to be handled in the same way with no variability or specific criteria of categorizing. As a result, quota sampling was not to be used as again the researcher did not want to interfere in the choice so that the sample would be considered as biased. Also, having various strata will not contribute to the research at the moment, but may be later for further research, when different consumer's typologies are studied, such technique would be of more benefit. Hence, a convenience sample was seen as appropriate.

The researcher decided to be picking elements (walk-in consumers) that just happen to be situated near to where the data collection is conducted. Furthermore, suiting denotes easy access to Fresh N Fresh stores in Cairo and Alexandria. Such walk-in consumers aged 18 and above (excluding younger consumers) were considered target population meeting the criteria of easy accessibility, geographical proximity, availability at given time and willingness to participate in the study which serves the purpose of the research. The researcher's primary goal from the sample is to ensure that the data gained is representative of the population. Therefore, the researcher intended to collect an adequate number of valid questionnaires in efforts to increasing the power of the sample. Since, Etikan *et al.* (2016) stated that the bigger the sample size, the higher the statistical power of the convenience sample. Obtaining a sampling frame to carry out this research study is quite impossible and hard to manage. As a result, an appropriate sample size had to be selected to guarantee the representativeness of the sample. Despite, the difficulty of finding generalized guidelines regarding sample size (Schoemann, *et al.*, 2017). Still, there are many rules-of-thumbs that have been advanced, like a minimum sample size of 100 or 200 and 10 cases per variable (Serang, 2018). Yet, Hoyle and Gottfredson (2015) stated that samples in the 50–100 range can be problematic when it comes to complex models and so samples of 200 or more are seen more powerful. Similarly, Roscoe (1975) stated that “sample sizes larger than 30 and less than 500

were appropriate for most research”. More recently Saunders and Townsend (2016) confirmed that a research sample size should be 400 based on the sample size consistent with the 95% confidence level. As such, the target population of this study is 18+ Fresh N Fresh walk-in consumers, who are residents of the governorates of Cairo and Alexandria. Both governorates are the two largest Metropolitan cities by population where, organic food purchasing is relatively more publicly present (CAPMAS, 2016).

The conceptual model is considered relatively complex as it includes nine main constructs that are assigned for testing. So, to attain model stability and better results, a sample size of 500 respondents from the population under study was determined. This number was considered as an adequate sample size based on different methods used to determine the sample size. Furthermore, to have a chance to exclude respondents with invalid responses if any were found. From a statistical position, the researcher used the structural equation modeling as the best suitable technique to understand the relationships between the research constructs and the empirical tests of the research hypotheses assumed. Lastly, it is claimed that the unit of analysis is defined as the degree of accumulation of the data collected during the stage of data analysis. Moreover, the study proposed questions that decide the appropriate unit of analysis (Saunders & Townsend, 2016). Accordingly, the unit of analysis is to be identified in alignment with the formulation of the research questions. In this research study, Egyptian consumers in the all-organic food grocery retail store are considered the relevant unit of analysis.

Purchasing organic food in an act of behaving pro-environmentally is usually targeted to segments with high purchasing power, income standards and educational levels (Van Huy *et al.*, 2019). Accordingly, for the larger scale data, questionnaires were to be distributed in the two main cities, namely Cairo (capital of Egypt with the highest population density) and Alexandria (second largest city) as compared to the eight main regions of Egypt. These cities were especially selected since they have high population density (21,322,750 and 5,381,101million respectively) according to the Egyptian Demographics Profile (2021) and the world population review. Moreover, they are the most metropolitan cities with highest educational and income levels and the lowest consumption gaps (Sika, 2017). The questionnaires were to be

distributed in a newly opened all organic grocery stores in Cairo and Alexandria called “Fresh N Fresh”. It has three branches operating in Alexandria and two branches recently opened in Cairo. This chain was chosen as it fits the research purpose due to different reasons. Firstly, it is the first store offering an all-organic experience to consumers specializing in such a novel concept. Secondly, Fresh N Fresh offers a wide range of organic food (vegetables, fruits and dairy products) and is still working on expanding to offer more diverse food. Thirdly, the whole store is made of elements that reflect the all organic/pro-environmental idea. More accurately, the design is made out of environmental features; the packages used are all 100% recyclable, the background music gives the feeling of the natural wild as well as a nature like smell.

The researcher main aim was to understand the organic food purchase behaviour and how it relates to behaving in a pro-environmental manner. So to better serve this goal it was clear that administering the study in an all organic food context that is directed towards activating the environmental essence would be way better than addressing the study in a big chain supermarket that offers an organic food section. This is because many different reasons first, the store’s concept is one of its kind in the Egyptian markets. Second, people who visit a whole organic retail store are considered potential organic food consumers unlike, consumers visiting a big chain or super market that only has a section of organic food. It was going to be very hard to assess the organic food purchase decision resulting from acting pro-environmentally in a store with normal settings and offering a wide range of products. On the contrary, Fresh N Fresh served exactly the purpose of this research study as the atmospherics beside the products variety, staff and many other elements focuses mainly on the environmental aspects while visiting the store. Consequently, it was the researcher decision to administer the questionnaire within the different branches of Fresh N Fresh instead of normal stores to grasp a better picture of the organic food situation in Egypt.

After being done with the small-scale data collection, such data was statistically analyzed using the SPSS statistical package (Version 24) and Microsoft Excel. The following section discusses the variables validation and then followed by the questionnaire design and pilot study with its reflections.

3.5. Research Variables Validation

The researcher thought of holding some informal meetings with academics and fields specialists as a second step to validate the research variables. Then, a preliminary pilot study follows to pre-test the scales that are to be used in the questionnaire for the large-scale data collection. Table (3.6) identifies the research variables. Each variable was discussed in the meeting in order to first, confirm its choice as being correct and appropriate and second, validate the scales that are used to construct the questionnaire employed in this study. An example of the amendments that resulted from these meetings is choosing to consider studying the single environmentally relevant subset of Schwartz personal values rather than the four values subsets.

The informal meetings in addition to the literature review were to verify the research variables where, the preliminary pilot study is mainly testing the items and scales that measure the constructs. The researcher conducted a number of meetings with different groups of people in order to obtain diverse opinions confirming the relevance of the chosen variables. Furthermore, the meetings were beneficial in pre-testing the scales (as the initial questionnaire was presented to them) that was to be used in the questionnaire development phase in terms of language and applicability. Moreover, these meetings led to a clear focus on the main variables under study aiding in the choosing, testing and restructuring of measurement scales. The experts and academics were given the freedom to express their views which helped gain an indepth view that expanded the knowledge and understanding of the researcher of the research topic. Also, this step provided updated insights into the opinions, feelings and experiences of diverse individuals who are all related to the behaviour investigated. It was noted that most of the candidates, who were asked to be involved, were glad to contribute and showed their consensus. This has contributed to their experiences and expertise in the field and the topic made them enjoy discussing their experiences, opinions and preferences. Besides, they understood the significance of the research topic and approved that it needs further investigation, especially within the Middle Eastern region. Table () demonstrates the conceptual definitions of the chosen variables of the study.

Table (3.6): Conceptual Definitions of Research Variables

Variable	Conceptual definition
Attitude towards purchase of organic food	An attitude towards behaviour is a psychological tendency referring to the degree to which a person has favorable or unfavorable evaluation or appraisal of the behaviour in question (Ajzen, 1991, p.188; Zhou <i>et al</i> , 2013).
Social influence towards the purchase of organic food	The social influence encompasses all the influences an individual is exposed to from different social actors. First and foremost, the subjective norms which reflect an individual's perceived social pressure and the influence of social factors on adopting or not adopting certain behaviour. Second, the influences of situational social actors who help-motivate the behaviour by offering favorable definitions (Ajzen, 1991, p.188; Kim & Chung, 2011; Zhou <i>et al</i> , 2013).
Anticipated guilt towards the environment	Anticipatory guilt refers to an anticipation of a feeling a person might experience when there is a new thought that violates their personal standards. This anticipation provides an opportunity to avoid the unpleasant emotion linked to misbehavior (Elgaaied, 2012).
Self-transcendence Personal values	Personal values are “trans-situational goals, varying in importance, that serve as guiding principles in the life of a person or group” (Schwartz 1994, p.21). Self-transcendence combines benevolence and universalism values. On the one hand, people valuing benevolence are concerned with maintaining and improving other people's interests. On the other hand, People valuing universalism are tolerant, concerned about justice for all and are passionate about environmental issues (Schwartz, 2012).
Perceived behavioural control	The perceived behavioural control refers to the degree of control an individual perceives over performing a behaviour. It denotes the ease or difficulty of performing the behaviour reflecting on past experience as well as anticipated obstacles

	(Ajzen, 1991, p.188).
Intention towards purchase of organic food	Behavioural intentions constitute an intermediate variable between attitudes and behaviour. They are indications of how hard a person is willing to try and how much effort that person is planning to exert in order to perform the behaviour (Ajzen, 1991, p.188).
Store's atmospherics	Atmospherics are defined as “the conscious designing of space to create certain consumer effects. More specifically, the designing of buying environments to produce certain emotions to enhance the purchase probability (Eroglu <i>et al.</i> , 2003; Kotler, 1973-1974).
Pro-environmental behaviour	The pro-environmental behaviour is defined as a set of deliberate and effective actions resulting in the conservation of the socio-physical environment for present and future generations (Bonnes & Bonaiuto, 2002).
Organic food purchase	Organic food is defined as “food manufactured using toxic-free ingredients, grown without synthetic pesticides, growth hormones and antibiotics. It uses environmentally-friendly procedures, modern genetic engineering techniques and has to be certified from a recognized organization” (Kumar & Ghodeswar, 2014). Organic food is produced by an environmental production management system that promotes biodiversity, biological cycles and soil biological activity. This system uses minimal off-farm inputs and its management practices maintains and enhances ecological harmony through minimizing air, soil and water pollution.

This initial and informal step helped the researcher to order thoughts and ideas to ensure that the research is moving in the right direction. The following are the main points candidates gave as feedback:

- There was a general consent that the questionnaire was quite long, which can affect its effectiveness and efficiency from their point of view.
- The five-point Likert scale used could be changed in to a seven-point Likert scale. This was stated because wider scale was seen to give better details to respondents when expressing their thoughts, which will offer more sense to the results and clearer perspectives and insights.
- There were some amendements to the phrases used in the questionnaire. Rephrasing was for reasons of simplicity and clarity to better convey the meanings and gain correct answers.

Based on these conclusions, the model was ready to be further tested. The researcher found the guidance, comments and suggestions to be very useful and decided to modify the questionnaire accordingly. The next section illustrates the development of the questionnaire and ends with the survey validation based on the pilot study that was conducted.

3.6. Questionnaire Design and Development

Since prior relevant studies defined the research variables it was time to get them operationalized. Questionnaires are designed in three forms. Firstly, structured questionnaires including pre-coded and well-defined closed ended questions. This results in easiness of management and consistency in answering. Secondly, unstructured questionnaires including open ended and vague opinion-type questions. This type frequently adopts and is fit for focus group studies. Thirdly, quasi-structured questionnaires use a mix of structured questions and unstructured questions. The researcher closely examined similar quantitative studies in areas of consumer behaviour, organic food and the environment. Further, these questionnaires were developed based on the researcher's own data collection purposes as none of the available studies fully met the requirements of the current research purpose. As a consequence, the researcher had to create a questionnaire that perfectly fits the research own purpose. The questionnaire development and design were influenced by the work of many scholars like: Ajzen and Fishbein, (1980), Ajzen (1991), Bitner (1992), Schwartz *et al.*, (2001; 2012), Lindberg and Steg (2007), Chen and Chai (2010), Kim and Chung, (2011), Chen and Chang (2012), Elgaaied, (2012), Zhou et.al, (2013) and Moser, (2016).

First steps to operationalization, the constructs were conceptually defined in light of the study in order to understand how to measure them. For example, the construct “Social Influence” represented all the influences an individual is exposed to from different social actors. These influences included the subjective norms plus the influence of situational social actors (Ajzen, 1991, p.188; Kim & Chung, 2011; Zhou *et al.*, 2013). Consequently, when operationalizing this construct, a measurement for both influences with different items was used. The second step was finding the suitable measurements for the constructs. Table (3.7) presents a detailed description of the operational definitions of the variables, by explaining the measurement scales chosen per construct for designing the questionnaire, along with the adaptations (if any) that were done for reasons of clarity and easiness of answering.

The attitude towards purchase of organic food was evaluated from two different perspectives; the cognitive side and the affective one. Each perspective was initially assessed using a single item then changed to two items. Accordingly, the construct consisted of eight items; two items for each component against two different activities. Moreover, the social influence measured two types of influences. The first is the influence of social norms and the second is the influence of the situational social actors. Each influence was measured using a single item. Therefore, the construct consisted of four items, an item for each component against two different activities. Furthermore, anticipated guilt was assessed with a two-item scale. The construct was made of four items two for each activity. Also, the self-transcendence values were measured using portrait value questionnaire which includes short verbal portraits of forty imaginary persons. Each portrait described a person’s goals, aspirations, or wishes that point implicitly to the importance of a value. For each portrait, respondents were asked: “How much like you is this person?” The 40 items were clustered into the ten Schwartz’s basic values types where, only fifteen were considered for the study. Additionally, the perceived behavioural control was initially assessed by a single item then changed to two-item scale. So, the construct contained four items, two per activity. Likewise, the intention was evaluated originally by a single item then changed to two items for each activity summing to a total of four statements. The six elements representing the store’s atmospherics were measured with six direct statements. Similarly, the ten

different pro-environmental behaviours were measured using an instrument reporting 10 (instead of 14) actions related to re-usage, recycling, energy conservation, etc. In addition, organic food purchase was measured through two parts as illustrated in the table.

Table (3.7): A Detailed Description of the Operational Definitions of the Variables

Variable	Scale used for measurement	Source
Attitude towards purchase of organic food	<ul style="list-style-type: none"> ▪ The cognitive attitudinal component was measured by four items using a seven-point Likert scale where “Buying organic food instead of conventional food is” and “Behaving pro-environmentally is” <ul style="list-style-type: none"> ○ (1) - “Wise” and (7) - “Foolish”. ○ (1) - “Beneficial” and (7) - “Harmful”. ▪ The affective attitudinal component was measured by four items using a seven-point Likert scale where “Buying organic food instead of conventional food would make me feel” and “Behaving pro-environmentally would make me feel” <ul style="list-style-type: none"> ○ (1) - “Good” and (7) - “Bad”. ○ (1) - “Pleased” and (7) - “Unpleased”. 	<p>Ajzen (1991). Kim and Chung (2011). Gronhoj <i>et.al</i>, (2012). Zhou <i>et.al</i>, (2013). Husain <i>et al.</i>, (2021)</p>
Social influence towards purchase of organic food	<ul style="list-style-type: none"> ▪ The social norms were measured by two items using a seven-point Likert scale where “Most people who I value would buy organic food instead of conventional ones” and “Most people who I value would behave pro-environmentally” <ul style="list-style-type: none"> ○ (1) - “Strongly agree” and (7) - “Strongly disagree”. ▪ The situational social influence was measured by two items using a seven-point Likert scale 	<p>Ajzen and Fishbein, (1980). Ajzen (1991). Bitner (1992). Bansal and Taylor (2002). Lin (2007).</p>

	<p>where “People who influence my decisions would approve of me buying organic food instead of conventional ones” and “People who influence my decisions would approve of me behaving pro-environmentally”</p> <ul style="list-style-type: none"> ○ (1) - “Strongly agree” and (7) - “Strongly disagree”. 	
Anticipated guilt towards the environment	<ul style="list-style-type: none"> ▪ The anticipated guilt towards organic food was assessed by two items using a seven-point Likert scale where “I would feel guilty if I did not buy organic food” and “My conscience towards the environment would bother me if I did not buy organic food” <ul style="list-style-type: none"> ○ (1) “Not guilty” and (7) “Guilty” ○ (1) “Not bothered” and (7) “Bothered” ▪ The anticipated guilt towards the environment was assessed by two items using a seven-point Likert scale where “I would feel guilty if I did not behave pro-environmentally” and “My conscience towards the environment would bother me if I did not behave pro-environmentally” <ul style="list-style-type: none"> ○ (1) “Not guilty” and (7) “Guilty” ○ (1) “Not bothered” and (7) “Bothered” 	Elgaaied, (2012). Bitner’s (1992).
Self-transcendence personal values	<p>Self-transcendence values (Universalism and Benevolence) were measured using 15 items, with a six-point scale from “very much like me” (coded as 6) to “not like me at all” (coded as 1).</p> <ul style="list-style-type: none"> ▪ The universalism values were subdivided into three categories: <ul style="list-style-type: none"> ○ Universalism – Concern <ul style="list-style-type: none"> ➤ It is important to me that the weak and vulnerable in society be 	Schwartz’s Portrait Value Questionnaire (PVQ) (Schwartz <i>et al.</i> , 2001; 2012).

	<p>protected.</p> <ul style="list-style-type: none"> ➤ It is important to me that every person in the world has equal opportunities in life. ➤ It is important to me that everyone be treated justly, even people I do not know. ○ Universalism – Nature <ul style="list-style-type: none"> ➤ It is important to me to care for nature. ➤ It is important to me to take part in activities to defend nature. ➤ It is important to me to protect the natural environment from destruction or pollution. ○ Universalism – Tolerance <ul style="list-style-type: none"> ➤ It is important to me to be tolerant towards all kinds of people and groups. ➤ It is important to me to listen to and understand people who are different from me. ➤ It is important to me to accept people even when I disagree with them. ▪ The benevolence values were subdivided into two categories: <ul style="list-style-type: none"> ○ Benevolence – Dependability <ul style="list-style-type: none"> ➤ It is important to me to be loyal to my friends. I want to devote myself to people close to me. ➤ It is important to me to be a dependable and trustworthy friend. ➤ It is important to me that all my 	
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	<p>friends and family can rely on me completely.</p> <ul style="list-style-type: none"> ○ Benevolence – Caring <ul style="list-style-type: none"> ➤ It is very important to me to help the people dear to me. ➤ It is important to me to take care of people I am close to. ➤ It is important to me to concern myself with every need of my dear ones. 	
Perceived behavioural control	<ul style="list-style-type: none"> ▪ Respondents were asked about the ease/difficulty of purchasing organic food by two items using a seven-point Likert scale where “In general, for me to buy organic food instead of conventional ones would be” and “If I want to, I could easily buy organic food instead of conventional ones” <ul style="list-style-type: none"> ○ (1) - “Easy” and (7) - “Difficult”. ○ (1) - “Strongly agree” and (7) - “Strongly disagree”. ▪ Respondents were asked about the ease/difficulty of behaving in a pro-environmental manner by two items using a seven-point Likert scale where “In general, for me behaving pro-environmentally would be” and “If I want to, I could easily behave pro-environmentally” <ul style="list-style-type: none"> ○ (1) - “Easy” and (7) - “Difficult”. ○ (1) - “Strongly agree” and (7) - “Strongly disagree”. 	<p>Ajzen (1991). Ajzen (2002). Bansal and Taylor (2002). Zhou <i>et al.</i>, (2013).</p>
Intention towards the purchase of	<ul style="list-style-type: none"> ▪ The intention towards purchase of organic food was assessed by two items using a seven-point Likert scale where “I intend to 	<p>Fishbein and Ajzen, (1975) Ajzen and Fishbein,</p>

organic food	<p>buy organic food instead of conventional ones in the near future” and “I will buy organic food instead of conventional ones in the near future”</p> <ul style="list-style-type: none"> ○ (1) “Definitely do” while (7) “Definitely do not” ○ (1) “Extremely likely” while (7) “Extremely unlikely” <p>▪ The intention towards behaving pro-environmentally was assessed by two items using a seven-point Likert scale where “I intend to behave pro-environmentally in the near future” and “I will behave pro-environmentally in the near future”</p>	<p>(1980) Ajzen (1991). Kim and Chung (2011). Gronhoj <i>et al</i>, (2012). Zhou <i>et al</i>, (2013).</p>
Store’s atmospherics	<p>Atmospherics were measured by six items where respondents were being asked to give their views based on a seven-point Likert scale ranging from (1) “strongly disagree” to (7) “strongly agree”. The store atmospherics variables were as follows:</p> <ul style="list-style-type: none"> ▪ The store’s lighting affects my purchase behaviour ▪ The store’s background music affects my purchase behaviour ▪ The store’s smell affects my purchase behaviour ▪ The store’s design, colors and layout affect my purchase behaviour ▪ The store’s presentation of visual merchandising affects my purchase behaviour. ▪ The store’s location and parking facilities affect my purchase behaviour 	<p>The scales were gathered from various publications such as: Kotler (1974). Baker (1987). Bitner (1992). Eroglu <i>et al</i>, (2003). Tanner and Kast (2003). Newman (2007). Hägerhed-Engman <i>et al</i>, (2009). Bezencon and Blili (2010). Carrington <i>et al</i>, (2010). Hooper <i>et al</i>, (2013).</p>

		Lindberg <i>et al.</i> , (2018). Grimmer <i>et al.</i> (2016). Abdul Jalil <i>et al.</i> (2016). Moser, (2016). Kazancoglu & Aydin, (2018).
Pro-environmental Behaviour	<p>The pro-environmental used an instrument with ten items where responses ranged from 1 (never) to 7 (always). These actions were as follows:</p> <ul style="list-style-type: none"> ▪ I wait until having a full load before doing laundry. ▪ I pointed out un-ecological behaviour to someone. ▪ I buy products in refillable packages. ▪ I buy seasonal produced food. ▪ I read about environmental issues. ▪ I talk with friends about environmental problems. ▪ I turn down the air conditioning when leaving place ▪ I look for ways to reuse things. ▪ I encourage friends and family to recycle. ▪ I buy food to my convenience. <p>While, the deleted actions were as follows:</p> <ul style="list-style-type: none"> ▪ I collect and recycles used paper. ▪ I bring empty bottles to a recycling bin. ▪ I conserve gasoline by walking or bicycling. ▪ I use a clothes dryer. 	Kaiser <i>et al.</i> , (1999) 14 items of the General Ecological Behaviour Scale (GEBS). Bonnes and Bonaiuto, (2002).
Organic food	First, six items were evaluated based on a seven-	All nine factors were

<p>purchase</p>	<p>point Likert scale ranging from (1) “strongly disagree” to (7) “strongly agree” as follows:</p> <ul style="list-style-type: none"> ▪ I purchase organic food even if I rarely see it where I shop. ▪ I purchase organic food regardless of its price. ▪ I purchase organic food even if I do not have enough information about it. ▪ I purchase organic food even if I have no confidence that food labeled organic produce is truly organically produced. ▪ I purchase organic food regardless of seeing its benefits. ▪ I purchase organic food regardless of its quality. <p>Second, 3 items were used to obtain some basic descriptive data intended to result in like a consumer typology database. The respondents were asked to answer a seven-point Likert scale questions as follows:</p> <ul style="list-style-type: none"> ▪ How often do you buy organic food? <ul style="list-style-type: none"> ○ (1) “Never buy”, while (7) “Always buy”. ▪ How much organic food do you purchase in comparison to your overall food purchases? <ul style="list-style-type: none"> ○ (1) “Very little of my consumption” while (7) “Most of my consumption”. ▪ How much do you spend on organic food in relation to your total spending? <ul style="list-style-type: none"> ○ (1) “Spend a little” while (7) “Spend a lot”. <p>This second part was deleted due to irrelevance and for matters of simplicity and length issues.</p>	<p>collected from relevant research papers. Some examples of the papers used are: Lindenberg and Steg (2007). Chen and Chai (2010). Hu <i>et al.</i> (2010). Chen and Chang (2012). Di pietro <i>et al.</i>, (2013). Luzio and Lemke (2013). Suki (2013). Zhou <i>et al.</i>, (2013). Moser (2016).</p>
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As seen from Table (3.7), most of the constructs were measured against the two associated variables; the organic food purchase and pro-environmental behaviour. Some scales were used in their original form as they were clearly addressing the research objective. Others were from different theories as they were effective in measuring the conceptual definition of specific variables in the study. However, scales that were found unsuitable were modified to accurately measure certain variables in the model.

The consideration of standardizing the whole questionnaire with a 7-point Likert scale for the sake of consistency was doable for all the construct's measurement scales except Schwartz portrait value questionnaire. Based on the researcher's readings, it was realized that changing the original 6-point scale would not benefit this study much. This is because the scale as is having been constructed to measure "universals" in values on all different segments of the population. In other words, the values that are similar in content and structure across different cultures and countries. The scale was used in over 200 samples from over 70 countries (Borg *et al.*, 2019). Accordingly, this suggests that using the original Schwartz scale would offer a ground for comparison with other used that used the same scale in its normal format. The values form a continuous circular scale and the person finds a position within this circle so that the distances to particular points on the value circle correspond to the person's compromise preferences for these values. When aggregating the person's ratings for the values by correlating across persons, the unfolding model simplifies to become a multidimensional scaling model that predicts a circular pattern of values (Borg *et al.*, 2019). Manipulating the scale would help with the shape of the questionnaire and the consistency with the rest of the variables scale. But will not be representing the inter-correlations (distances among points on an approximate circle) using as clear and equivalent to the original one used by Schwartz and colleagues. Moreover, the portrait questionnaire is recommended to be used by Schwartz as its items are more concrete and cognitively less complex than other instruments that measure values. Consequently, the researcher decided to comply with Schwartz and use the questionnaire with its normal 6-point scale so as to maintain the predictive power of value measurement

statistically (Schwartz scales all rest on a distance model). Furthermore, the mean of the person's ratings itself can be meaningful with respect to the underlying theoretical models. As it is important to give attention to how the data are pre-processed within these models before their structure is studied, the relevant statistical models and the coding. It could be summed up, that the Portrait value 6-point scales fits better to the value circle theory as it has been developed out of the theory itself. And expanding the scale to a seven point will not lead to a better understanding of how individuals generate their value judgments or show improvements on how to measure personal values. So, the scale was fixed to represent the data well and not distort the correlations following the standard procedure for dealing with the individual differences.

On a more general note, the process of designing a questionnaire requires extensive planning, reading and pilot work. Each question design is determined by the data needed to be collected. According to Bourque and Clark (1992), designing questions is done according to one of the following techniques:

- Adopting questions used in other questionnaires.
- Adapting questions used in other questionnaires.
- Developing own questions.

As more knowledge was needed to be gained reflecting the antecedents that best predict organic food purchase as a result of pro-environmental behaviour. Besides, understanding the service-scape phenomena and how it affects the behaviour under study. Accordingly, the researcher decided to use structured questionnaires with closed ended questions to acquire the quantitative data from walk in consumers. The aim of the questionnaire was to create a clear picture of the status of the organic food Egyptian market from a pro-environmental perspective. Furthermore, this study's questionnaire is used to understand and capture the individual's feelings, options, perceptions and actions related with the phenomena of interest. Accordingly, the questionnaire used the original Likert scale as the main measurement scale. The symmetric scale is comprised of a set of statements (items) for either a real or hypothetical situation under study. It is considered the most universal and understandable method where, respondents are asked to express their level of agreement ranging from strongly disagree to strongly agree (or equivalent)

with neutral lying exactly in between the two extreme poles on a given statement metric scale (Joshi *et al.* 2015). The responses are easy coded and decoded as a single number represents a single participant's response (Likert, 1932). The information and questions in the questionnaire were aligned in a way allowing the respondents to complete the task of reading and answering the questionnaire with the least time and effort. The questionnaire comprised all the relevant measurements that help answer the study's research questions. Each construct in the questionnaire was well defined based on operational statements that measured each construct. The questionnaire was developed into eleven sections where, each section represents a certain variable or set of variables.

Table (3.8) summarizes the questionnaire sections.

Section 1	Starts with a short paragraph briefing the aim of the questionnaire and explaining the reason for and importance of the research. It also shows that by participating in the research, respondents are helping out the researcher in her study. Moreover, the introduction gives a general understanding of the pro-environmental behaviour and organic food relationship. Furthermore, the opening ensures and declares the confidentiality of the information provided and the anonymity of respondents participating. Then, the survey began with a nominal introductory question that questioned the participants' organic food purchasing habits throughout the past 6-12 months.
Section 2	Represents Schwartz's Portrait Value Questionnaire (PVQ) which is associated with assessing self-transcendence values. This section is divided into 15 portraits (summing up the universalism and benevolence values) each describing a person's goals, aspirations, or wishes that point implicitly to the importance of a value. Besides, it highlights the natural dimension of the service-scape and its effect on the holistic consumer's organic food purchase experience.
Section 3	Represents the statements measuring the "Attitude towards purchase of organic food". The attitude was measured from two perspectives; one representing the cognitive evaluations and the other representing the affective evaluations.

Section 4	Represents the statements that test the perceived behavioural control.
Section 5	Represents the statements examining the “Social Influence”. This construct was measured according to two different perspectives, the expectations of valued people and the influence of other people in the decision-making process. Also, it highlights the social dimension of the service-scape and its effect on the holistic consumer’s organic food purchase experience.
Section 6	Represents the statements that assess the anticipated feeling of guilt towards the environment and its effect on the organic food purchase intention. Moreover, highlighting the natural dimension of the service-scape and its effect on the holistic consumer’s organic food purchase experience.
Section 7	Represents the statements that measure the intention and willingness to purchase organic food.
Section 8	Represents the statements that measure the pro-environmental behaviours in general through reporting various environmental actions. Furthermore, it highlights the natural dimension of the service-scape and its effect on the holistic consumer’s organic food purchase experience.
Section 9	Represents the statements that assess the purchase of organic food.
Section 10	Represents the statements that measure the effect of the store atmospherics on the organic food purchase behaviour within the pro-environmental domain. This section explores the importance of general store settings, designs and facilities highlighting the effect of the physical dimension of the service-scape on the holistic consumer’s organic food purchase experience.
Section 11	The final section represents the respondents’ personal socio-demographic information. This part gathers general information concerning age, gender, city of residence, average monthly household income in Egyptian pounds, occupation, marital status and the level of education. This section helps in obtaining consumer profiles through descriptive data.

3.7. Preliminary Pilot Study, Analysis and Reflections

It is preferable to pilot test a questionnaire before using it to collect data. Therefore, the following part investigates the preliminary study (pilot study) and its reflection on the design of the final questionnaire. Pilot studying prior to a larger study helps to improve the quality and proficiency of the questionnaire, its presentation and layout, and detect any problems before distributing it on a larger scale (Bryman, 2016). The amendments resulting from the analysis which enabled the researcher to refine the questionnaire are presented. By the end, the researcher assured the validity and reliability of the instrument and hence the collected data. 40 questionnaires (which is almost 10% of the main sample according to Hertzog, 2008) were distributed among different respondents. In this research, the literature reviewed was in English. Consequently, the questionnaire was initially developed in English. However, since the questionnaire was to collect information from Egyptian consumers. Therefore, the English version needed to be translated into Arabic. The researcher conducted a back-to-back translation (English- Arabic- Arabic- English) twice. First translation was done by the College of Language and Communication at the Arab Academy for Science, Technology and Maritime Transport in Alexandria. The second was done by a freelance translator in order to make sure that the questionnaire in both languages conveys the same meaning. Likewise, as a second opinion, both versions were then examined by two academics to ensure the translation precision and to confirm that both questionnaires had the same meaning. Still, the researcher believed that comprehending a questionnaire in English was not going to be a problem. A reason was that the research questionnaire was examining organic food which is limited to a certain society segment characterized by high income and educational level due to its premium prices. These levels and brackets understand and use the English and French languages widely according to Egypt's Demographics Profile (2021). Another logical justification was that Egyptians use a common slang language that is totally different from the authentic proper Arabic language that was translated in the questionnaire. Therefore, translating the questionnaire in proper Arabic was not going to be easily comprehended by many respondents as compared to the English version. Later, the questionnaire was pre-tested for clarity, comprehension and consistency by distributing it in various places.

The questionnaires were to be administered in one of two ways. Whether, leaving the questionnaires over the counter in the store to be filled by walk-in consumers and collected later, or individually handed in and collected by the researcher in the store. The researcher decided that the latter approach would ensure the effective completion of the questionnaires. Also, the choice was mainly because people in Egypt lack the concept of voluntarism along with weak participation concept (The Human Development Report of Egypt; United Nations Development Program (UNDP) and Initial National Program (INP), 2008). Additionally, during piloting (which was mainly conducted in Alexandria for reasons of practicality and convenience) the researcher did experience this refusal behaviour and lack of cooperation and participation from consumers walking in. To overcome this obstacle, the researcher offered respondents who were willing to participate a 25 Egyptian pounds off voucher of their purchase receipt when handing in a completed questionnaire. This tactic also motivated potential consumers to purchase organic food. Furthermore, the researcher made sure to take the consent of the owners and managers of the grocery stores from which the data were to be collected.

For the preliminary study, the researcher depended on personal contacts and connections to gain access to the Alexandrian branches and conducted a quick 40 sample questionnaire. Potential participants were approached and asked whether they have a will to participate in a PhD research study. Those agreeing were given a brief description of the survey process and a questionnaire on the spot. They were asked to hand it over when done while, the researcher took a few steps away from the respondent to give them the needed space and time to complete the questionnaire. Only clarifications to respondents' questions were offered by the researcher when asked for. By doing so, the researcher had minimum interference with the participants while answering the questions. Also, this helped in eliminating any direct, indirect, conscious and unconscious signals or cues that could influence the respondent's answer in an expected direction at the time. The analysis of the pilot study would present patterns of frequencies as bases for comparisons and correlation as to determine the strength and shape of relationships between independent variables and dependent one. Later on, the large-scale data analysis was analyzed more deeply by using more techniques to bring out all fruitful insights and

answering the research questions. The following gives an overview of the data analysis techniques.

3.8. Data Analysis Techniques

The data collected were analyzed using the IBM SPSS Statistics program (Version 24) and AMOS (version 23) for the structural equation modeling. These programs perform a set of advanced statistical analysis to answer the research questions and verify the research hypotheses. The statistical tests used are as follows:

- Descriptive analysis for respondent's personal profiles: Is a form of frequency analysis, showing the percentage of the occurrences of various answers related to the respondents' socio-demographic characteristics.
- Descriptive analysis of research variables: Is computing some descriptive statistics to identify average answers, recognizing the values that occurred most frequently and offering an indicator of the spread of the data distribution. This is done using a variety of methods as frequencies, mean, median, mode, range and standard deviation.
- Data cleaning and Outlier's testing: Is a matter of data cleaning for the data collected for the research purpose.
- Exploratory factor analysis (EFA): Is the process of outlining the basic structures among the variables under research using the factor loadings of items forming a certain construct. This technique enables the researcher to manage the items in the analysis by grouping and labeling them, and to identify whether some overlap or weak loadings may happen, and so forth. Moreover, such test is an initial step in helping the researcher with identifying the constructs with valid and reliable data. In other words, items remaining in each construct were considered the items that would identify each construct (Hair *et al.*, 2014).
- Confirmatory factor analysis (CFA): Is the process of identifying the measurement model by using the common method bias, covariance method and data testing. Furthermore, it is considered a step in helping the researcher with identifying the constructs with valid and reliable data.

- Common Method Bias is a CFA method where a common factor is identified with common variance for all items observed to have adequate loadings by EFA. If the observed items are discriminant and unique for only the factors they were designed for, then their common variance computed for the common factor becomes weak, and vice-versa. A weak common variance is identified if its value is less than 50%.
- Covariance Method is another CFA method where the researcher draws the covariance between the constructs identified in the EFA stage and computes the model fit for the model obtained using covariance. A model is well-identified if it could well explain the data using an acceptable model fit. The model fit is considered as an acceptable one if all indicators are within the threshold values determined by Kline (2011) and Hair *et al.*, (2016). Table () presents the model fit indicators of CFA
 - Data Testing: Is testing data for validity and reliability, which is important to show that the data is good for testing the research hypotheses.

Table (3.9): Model Fit Indicators of CFA

Measure	Threshold
Chi-square/df (cmin/df)	< 3 good; < 5 sometimes permissible
p-value for the model	> 0.05
NFI	> 0.90
TLI	> 0.95
IFI	> 0.95
CFI	> 0.95 great; > 0.90 traditional; > 0.80 sometimes permissible
RMSEA	< 0.05 good; 0.05-0.10 moderate; > 0.10 bad
PCLOSE	> 0.05

SEM Fit Measures: source: Hair *et al.*, (2016)

- Validity and Reliability tests: On the one hand, validity is the degree to which the statements assigned for a certain construct in the questionnaire can measure this construct in a proper way and how well the data collected covers the area under investigation (Sekaran & Bougie, 2016; Taherdoost, 2016). Validity is measured by factor analysis technique through computing the average variance extracted (AVE) and factor loading (FL). Moreover, the AVE measures the factor validity, representing the average community for each latent factor. It should be greater than 0.5 to refer to an adequate validity (Hair *et al.*, 2019). Furthermore, the FL is the size of loadings of items on their corresponding variable. It should be at least 0.40 to refer to an adequate validity (Sekaran & Bougie, 2016). On the other hand, reliability analysis is the consistency of the statements given to measure one construct in the questionnaire (Taherdoost, 2016). In other words, reliability is the extent to which a statement is measured the same way each time and yielding the same results on repeated trials with the same conditions for the same subject. Therefore, reliability is concerned with repeatability and consistency. Moreover, reliability of each construct is measured using the statements assigned for the construct by computing the most commonly used test of reliability which is the Cronbach's alpha value. It ranges between 0 and 1 where the higher the score, the higher the reliability. The adequate reliability is claimed to be Alpha coefficients exceeding 0.7 (Hair *et al.*, 2012; Tavakol & Dennick, 2011).

- Normality assumption verification: It is assumed that the data have to be normally distributed so that the SEM is able to run. The normality of the research variables is when the data is plotted in a bell-shaped distribution with no skewness (heavy tail to the right or to the left) or kurtosis (the bell-shape is relatively steep or flattened). Moreover, normality is verified by the Kolmogrov-Smirnov test, where a P-value higher than 0.05 refers to a normal distribution of data. Likewise, such normality is also verified using the informal test of computing the skewness and kurtosis values. Furthermore, Skewness and Kurtosis values within ± 1 are considered accepted for approximate normality (Kleinbaum *et al.*, 1988).

- Multicollinearity problem: Is checking for the independent variables included in the research model. Multicollinearity is when there is a high correlation between the independent variables causing redundancy of information included in the model. As a result, certain variables might have appeared insignificant when they were significant. This problem is tackled by computing the variance inflation factor (VIF). If the value is greater than or equal to 5, then the multicollinearity problem does exist (Hair *et al.*, 2014).
- Hypotheses testing for Structural equation modeling (SEM): Is a statistical methodology used in various scientific fields, sciences and research. This is due to its ability to provide an inclusive method for measuring and testing substantive theories. This is done through testing hypothetical assumptions about the relationships and potential interrelationships between variables in the theories (Byrne, 2016). The SEM model is conducted by drawing the model with the constructs and items pre-specified in the measurement model. Then, the arrows in the model are directed according to the relationships hypothesized in the research framework. The parameter estimates are computed after rechecking the model fit indices obtained for the SEM model. According to Bryne (2016), SEM is better than the older generation of multivariate procedures because, first the SEM takes a more confirmatory approach to data analysis rather than an exploratory one. Second, multivariate analyses ignore potential measurement error in comparison to SEM that provides clear estimates of these error variance parameters. Third, the SEM can measure both observed and unobserved variables (i.e., latent variables) versus the other multivariate analysis. Fourth, the development and testing of complex multivariable models through SEM is more easily applicable. Besides, aiding in studying both direct and indirect effects of variables in a given model (Raykov & Marcoulides, 2006).

This research study merges a number of different variables deduced from various theories such as the Theory of Planned Behaviour, Schwartz theory of basic values and other individual level constructs such as anticipated environmental guilt and store's atmospherics. Moreover, the conceptual model sketches the relationships

between the variables that are to be tested through the hypotheses developed. Consequently, the researcher believes that using SEM with such other multivariate analysis helps measure the direction, strength and significance of all the relationships (direct and indirect) between the variables in the structural model. Additionally, it demonstrates the moderating effects of specific variables on the model. The following part presents the preliminary study analyses results and how these results reflect the questionnaire design.

3.9. Preliminary Study Questionnaire Analysis

This section presents the results of the 40 administered questionnaires that were empirically tested for reliability and validity of the measurement scales. The statistical analysis of the questionnaire should produce the following outcomes:

- A snapshot of current organic food purchase behaviour in the Egyptian market.
- The important antecedents (via their relationships) that best predict organic food purchase behaviour as a result of pro-environmental behaviour.
- Understanding the different dimensions of the service-scape phenomenon by applying it to the organic food retail industry.

Table (3.10) shows the descriptive analysis obtained. It could be noticed that over 80 % of the sample was in between the age bracket of 25 to 44 years old. From 50 to 67 % of the sample were married, privately employed females earning between 5,000 Egyptian pounds to 15,000 Egyptian pounds monthly and with a post graduate degree.

Table (3.10): Descriptive Socio-demographic Analysis

Age	Frequency	Percent
18-24	3	7.5
25-34	19	47.5
35-44	14	35.0
45-54	2	5.0
65+	2	5.0

Total	40	100.0
Gender	Frequency	Percent
Male	13	32.5
Female	27	67.5
Total	40	100.0
City	Frequency	Percent
Cairo	2	5.0
Alexandria	36	90.0
Other	2	5.0
Total	40	100.0
Income	Frequency	Percent
Less than 1000	1	2.5
1001-5000\	4	10.0
5001-10000	11	27.5
10001-15000	11	27.5
15001-20000	4	10.0
20001-25000	3	7.5
35000+	5	12.5
Total	39	97.5
Missing	1	2.5
Total	40	100.0
Occupation	Frequency	Percent
Student	2	5.0
Housewife	2	5.0
Self-employed	5	12.5
Private sector employee	18	45.0
Public sector employee	7	17.5
Retired	2	5.0
Unemployed	2	5.0
Other	2	5.0
Total	40	100.0
Status	Frequency	Percent

Single	7	17.5
Married	27	67.5
Divorced	3	7.5
Widowed	3	7.5
Total	40	100.0
Education	Frequency	Percent
High school graduate	3	7.5
University/ college graduate	7	17.5
Post college graduate	25	62.5
Other	5	12.5
Total	40	100.0

The demographic analysis was aimed at showing the sample from a descriptive perspective. This description denotes the nature of the sample population under investigation. Moreover, it ensures that diverse people or segments of people were covered in the study. Hence, their diverse views and opinions give the results logic beside the reliability. The validity, descriptive and reliability analysis were to:

- Test the goodness and validity of data by submitting the data to Cronbach's Alpha test during the reliability testing.
- Get a feel of the data, where it gives an initial idea of how good the data is and how well the coding and entering of data is done by submitting the data to standard deviation test during the descriptive analysis.

3.9.1. Validity Analysis

According to Wainer and Braun (1998), there are four methods to evaluate the validity which are: criterion-related validity, face validity, content validity and construct validity. Figure (3.5) summarizes the main types along with the subtypes in each type.

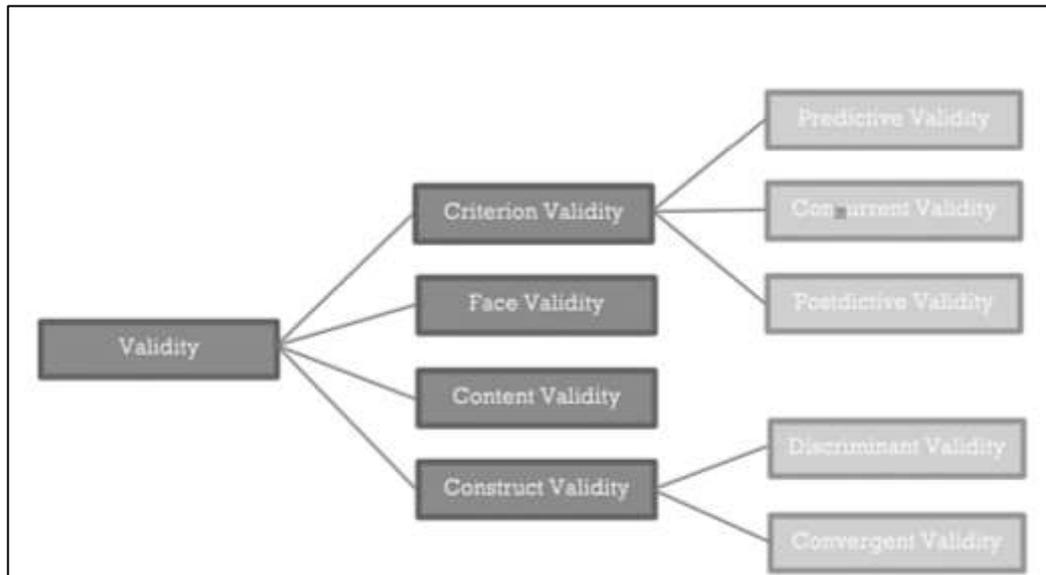


Figure (3.5): The Main Validity Types. Source: Hamed Taherdoost (2016)

Starting with criterion validity, this type measures the extent to which a measure is related to an outcome. It assesses how well one measure predicts an outcome for another measure. The criterion validity consists of concurrent validity (assessing the operationalization's ability to distinguish between groups that it should be theoretically able to distinguish), predictive validity (assessing the operationalization's ability to predict something that it should theoretically be able to predict) and post- dictive validity (determining the degree to which scores on a given test are related to scores on another established test or criterion administered previously). Moreover, known as being the weakest form of validity, face validity is the subjective judgment of the construct's operationalization. It is the degree to which a measure appears to be related to a specific construct from the point of view of the person taking the test (Taherdoost, 2016). This validity assesses the questionnaire presentation, the feasibility, readability, style consistency, formatting and the language clarity. In other words, face validity ensures that the measuring instrument is relevant, reasonable and unambiguous (Oluwatayo, 2012). Furthermore, a stronger form of validity is content validity which assesses the

degree to which items in a construct reflect the content universe to which the instrument is generalized. It ensures that the instrument includes all the essential items and eliminates unessential items (Straub, Boudreau *et al.* 2004). This judgmental approach involves literature reviews then follow-ups with the judgment of experts or panels. Additionally, construct validity measures how well the construct is translated into an operating reality. According to Taherdoost (2016), this type is made of two components: convergent validity (refers to the degree to which two measures of constructs that should be theoretically related are in fact related) and discriminant validity (refers to the extent to which a latent variable is distinguished from other latent variables).

When it comes to decision making, one cannot rely on criterion validity or content coverage only and so, for a construct to be valid construct validity should also be considered (Clark & Watson, 2019; Messick, 1989). Within this study, all types were considered in some way or another. As an example, content validity and face validity were achieved through the combined review done by senior academics and experts that have considerable experience in the fields of consumer behaviour, environment and organic food. Moreover, the development of a detailed literature review helped with achieving some sort of criterion, construct and content validity. Furthermore, the pilot study revealed that the scale's contents were validated by the inclusion of relevant and the exclusion of irrelevant items. All the steps were taken so as to make sure that the research's output is valid as it was based on valid constructs, instruments and measurements.

3.9.2. Reliability Analysis

A measure is highly reliable if it produces consistent results under consistent conditions and if the items of a scale “hang together” and measure the same construct. Furthermore, reliability is based on the idea that individual items produce results consistent with the overall questionnaire. It is a measure of how reproducible the data of the survey instrument are and it determines the ability of such an instrument to yield reliable results (Huck, 2007; Urbina & Monks, 2020). Several methods are available for conducting reliability analysis such as: Kuder-Richardson tests (KR), Split-half tests and Cronbach's alpha. As stated, Cronbach's Alpha coefficient is the most used internal consistency measure mainly when using Likert

scales (Robinson, 2009). Cronbach's alpha measures how well a set of items (or variables) measures a single one-dimensional construct.

Table (3.11) presents the Cronbach's Alpha coefficients computed for the research variables during the pilot study.

Table (3.11): Reliability of the Research Variables

Variable	Cronbach's Alpha	N of Items
Self-transcendence Values	.848	15
Attitude	.844	2
Social Influence	.889	2
Anticipated Guilt	.918	2
Intention	.827	2
Pro-environmental behaviour	.640	14
Organic Food Purchase	.904	6
Store Atmospheric	.889	6

As can be seen from the table, the alpha values range from .640 to 0.918 providing strong evidence that the scales developed are judged to be reliable. It should be noted that reliability is important but not sufficient unless combined with validity. Making sure that the construct is reliable and valid is important as it shows evidence of the construct's appropriateness, meaningfulness and usefulness (Mohajan, 2017).

3.9.3. Descriptive Analysis

In order to examine the feel of the measured data, basic descriptive statistics are conducted to ensure that there is only negligible distortion of the questionnaire outputs. The score obtained for each construct is calculated as the average of all items constituting the variable. The Standard Deviation (SD) is used to measure the accuracy of the population mean using the sample through quantify the amount of variation or dispersion of a set of values. A low standard deviation means that most of the values are close to the average. While, a high standard deviation means that the values are spread out. Table (3.12) displays the results of the descriptive analysis during the pilot study phase.

Table (3.12): The Descriptive Statistics (Standard Deviation values)

Research variable	N	Minimum	Maximum	Mean	Std. Deviation
Self-transcendence Values	40	4.33	7.00	5.8894	.65786
Anticipated Guilt	40	1.00	6.00	2.7419	1.42520
Social Influence	40	1.00	5.50	3.5484	1.32511
Attitude	40	3.00	7.00	5.1452	1.19857
Intention	40	1.50	6.00	4.6613	1.11346
Perceived Behavioural Control	40	2.00	7.00	4.0645	1.15284
Pro-environmental Behaviour	40	2.00	6.14	4.0984	.87359
Store Atmospherics	40	1.50	7.00	5.6892	1.16200
Organic Food	40	2.00	6.80	5.3097	1.10374
Valid N (listwise)	40				

It is clear from the descriptive analysis that most respondents are close to the mean on all the variables which implies that the data are reliable. Based on the results, the self-transcendence values variable has the highest mean of (5.8894). On the contrary, the anticipated guilt variable has the lowest mean of (2.7419). The aggregated means for all the other variables are almost seen to be close to each other which revealed that there is only a weak distortion of the collected data for these variables. After completing the statistical analysis of the pilot study, the outputs are used in amending the questionnaire to prepare for the main data collection. The following paragraphs discuss the reflections of the pilot study.

3.10. Reflections of the Pilot Study on the Questionnaire

Mapping the quantitative results gained from piloting along the judgmental opinion of senior academics and experts, the following points were considered:

- It was clear that the questionnaire length was not appropriate. In other words, participants thought it to be too long and few lost interests while answering it. Likewise, the same comment came out from the academics and experts' meetings. It led to redundancy in some sections. Consequently, some formatting techniques were used to make the questionnaire clearer and shorter in length. Furthermore, eliminating some statements that were seen redundant without affecting the measurement of the constructs or the purpose of the questionnaire. The final form of the questionnaires is found in Appendix A.
- Likert scales may be subject to alteration for several causes. The second point that emerged from piloting and the informal meeting was the change of the measurement scale from a five-point Likert scale to a seven-point Likert scale. It was proven that the human mind can distinguish seven different categories at a time showing more accuracy in the responses. Expanding the scale helped in quantifying the research variables in a more validated and reliable manner and bringing out deeper results. Moreover, it was stated that organic food purchasing is yet an ambiguous novel topic under investigation. Accordingly, a larger spectrum of choices will provide more option varieties increasing the probability of meeting the objective reality by offering participants more independence to pick the exact response they want (Likert, 1932). So, the final questionnaire was amended to a seven-point scale instead of originally a five-point scale.

Some modifications were done to certain constructs for better assessment. It is important to state that at the beginning of the research study, the researcher wanted to investigate the pro-environmental behaviour through studying organic food purchasing as an activity under the umbrella of pro-environmental behaviours. Later in the study and from the practical feedback that was received, it was realized that awareness of the link between organic food purchase and its environmental consequences is very low. As a result, organic food purchase was not to be directly considered a pro-environmental behavioural activity. Hence, the purchase of organic

food could not be treated as a measurement construct for pro-environmental behaving. Therefore, both variables were to be differentiated. By doing so, the direction of the research was shifted towards enhancing the understanding of the relationship between organic food purchasing and behaving pro-environmentally, instead of assuming that organic food purchase implies behaving pro-environmentally. Back to the questionnaire, each construct was to be measured against both variables. Being precise, the items in each construct were measured one time for purchasing organic food and one time for behaving pro-environmentally.

All the variables making up the conceptual model are concerned mainly with investigating the organic food purchase behaviour from a pro-environmental standpoint. Accordingly, the items within each construct are measured from both angles the organic food purchase one and the pro-environmental behaviour one. This merge would result in a better understanding as of how each variable in the model influence the main relationship under investigation. The researcher believes that merging both aspects would maximize the predictive power of each single variable besides, offering a base for comparing the different item's influences which would give more logic to the interpretations later. Add to this, that such way when analyzed would lead to more clear insights about whether items within the same construct interrelate, complement or conflict one another. So that results would be more comprehend and acted upon. Another example is extending the original social norms antecedent in the Theory of Planned Behaviour to include the situational social influences. The researcher wants to shed the light on the importance of social influence in this research case specifically. This is because, such influences are assumed to be playing a main role when it comes to examining and understanding the organic food/ pro-environmental relation. The situational social influence at the time of purchase or during the grocery shopping experience is equivalent in power if not stronger to the influence resulting from social norms. This is mainly due to the nature of the store's environment, the novelty of the organic food concept and the normative nature that accompanies or underlies such purchase behaviour. Consequently, both influences are seen important within the context and serving the same purpose so the idea of combining them under one construct is vital. Giving such an edge in specific will flourish the construct leading to interesting insights due to maximizing its influential power when it comes to purchasing organic food within

a pro-environmental domain. To sum up, organic food purchasing and behaving pro-environmentally are proven to be interrelated some way or another. It could be even said, that they are like two faces of the same coin. Therefore, the antecedents are to be assessed as measuring two different constructs while, the reality is that they are measured towards two different characteristics under the same notion. At the end, the researcher wants to answer the question of whether organic food purchasing (which is the only dependent variable in the model) does result from pro-environmental behaviour within the Egyptian market.

Some of the main changes were as follows:

- The general question “do you consider yourself happy?” was omitted as it was perceived as not related to the topic of the research and does not work with the purpose of the questionnaire.
- The “Attitude towards organic food purchase” construct was observed as being weakly measured. A single item representing the “cognitive attitude” and a single item representing the “affective attitude” were considered insufficient despite an acceptable Cronbach's Alpha of (.844). The insufficiency was related to a relatively high standard deviation of (1.19857) and in comparison, to the power of such a construct as expressed in past studies and literature. Also, it was an outputted point from the preliminary meetings that have happened. Therefore, two more items were to be added for better representation and assessment of the variable's power. The scales were adapted from a more recent study by Gronhoj et. al, (2012). On a different note, the environmental perspective needed more clarification within the questionnaire. Therefore, the same four items were added to acknowledge the environmental aspect directly.
- Two extra items got added to the “social influence towards organic food purchase” construct for measuring its different influences. The variable has a good reliability level with a Cronbach's Alpha of (.889), but a relatively high standard deviation of (1.32511) and so this change is made in efforts to minimize the variance of such a variable. Moreover, adequately measuring the social influence was of importance as it represents the social service-scape dimension and its effect on the consumer's organic food purchase experience.

The variable measured the effect of people influencing the decision and the effect of valued people. The items were adopted from Bansal and Taylor (2002) and Lin (2007).

- The “anticipated guilt towards the environment” variable needed better clarification to the association of the anticipation of such an environmental feeling with performing and/or not performing the behaviour. The construct showed a relatively high standard deviation of (1.42520) that was anticipated to decrease-by adding more items. Moreover, this construct assesses the effect of the natural service-scape dimension on the whole organic food purchase experience. Hence, strengthening such construct was major. The extra items included in the questionnaire were to be adopted from Elgaaied (2012) and Bitner’s (1992).
- Regarding the “Self-transcendence personal values” variable, two values were to be measured using fifteen items with the original 6-point scale adapted from the study of Schwartz *et al.* (2012) from “Not like me at all” to “Very much like me”. Despite, considering changing the scale to a 7 point for harmonization, the researcher agreed to leave it as is for maximum benefits from the scale measurement. In other words, the researcher was not sure if by changing the scale to fit the rest of the questionnaire, the results would be as accurate and appropriate as to using the original Schwartz scale since the value responses are quite sensitive (Schwartz, 2012). Also, the researcher realized the importance of using the universal scale as is so that, the results could be used in comparative studies later. The only modification that was to be done since the variable has adequate levels of Cronbach’s Alpha and standard deviation (.848 and .65786) was that the original scale had a female and a male version. However, the statements were to describe ‘oneself’ (using the term ‘me’) to avoid any gender discrimination.
- Perceived behavioural control was initially weakly measured as a single item construct and obtained a relatively high standard deviation of (1.15284). Furthermore, the word “resources” that was used in the statement was not understandable by some respondents and left others a little confused. Consequently, it seemed more statistically appropriate to measure the control factor by more items for better validity and reliability. Moreover, to be clearer, a different item adopted from Zhou *et.al*, (2013) was to be used

instead of the one adopted from Ajzen (2002) and Bansal and Taylor (2002). The statement “I believe that I have the resources and the ability to buy organic food instead of conventional ones” was to be replaced by “If I want, I could easily buy organic food instead of conventional ones”.

- The variable “Intention to purchase organic food” was accepted with a reliability of (.827) and a standard deviation of (1.11346). Being considered as an important pillar in the Theory of Planned Behaviour, the researcher strongly measured it by adding two extra items adopted from Zhou et.al, (2013). This is done in efforts of increasing its reliability and decreasing the variance.
- Ten items from the fourteen items in the Kaiser’s (1999), General Ecological Behaviour Scale (GEBS) turned out to be significant and so were used. The construct as a whole has a Cronbach’s Alpha of (.640) and a standard deviation of (.87359). Moreover, some of the statements were to be rephrased with more simple and direct wordings due to misconceptions of some respondents. For example, statement 6 (newly 4) “I buy seasonal produce” was rephrased to “I buy seasonally produced food”. Another one was statement 13 (newly 10) “I buy convenience food” was rephrased in to “I buy food to my convenience”. Also, the scale was to describe oneself (using the term “I”) to avoid confusion.
- For reasons of simplicity and lengthening, some statements were to be omitted, rephrased and altered from the “Store’s Atmospherics” construct as they were inadequately represented and comprehended by some respondents. Moreover, some of the items related to atmospherics were associated with the aisles, hallways and walkways which are not applicable to the store setting where the study was taking place. From a statistical viewpoint, the variable has a Cronbach’s Alpha of (.889) which is considered relatively high making such a diversified variable adequately reliable.
- The “Organic food purchase” construct consisted of nine items. The first six assessed the availability, price, available information, label trust, benefits and quality features. The other three were made out of three questions associated with basic descriptive data that aimed at grasping organic food spending and consumption patterns. After administering the pilot study, the researcher realized that the three questions were not serving the scope of the research

and were not going to benefit the research as expected. Accordingly, these questions were taken out for reasons of shortening the questionnaire. On the contrary, the six items led to a high Cronbach's Alpha of (.904) which made the variable highly reliable and hence the results.

After implementing all of the above amendments and modifications to the questionnaire, it was ready for usage with the main large scale data collection. The questionnaire was handed out to around 500 applicable walk-in consumers, while a number of 403 responses were found suitable for analysis, after deleting questions with missing values as well as outliers. The data collection was conducted within all different branches, Sundays through Saturdays in different hours. The researcher will be using statistical analysis techniques and software (SPSS, Microsoft Excel and SEM) to address the data gathered.

3.11. Ethical Considerations

As important as it deciding on a suitable research methodology for the current study, it is also as important to consider the ethical considerations around conducting the research. Apart from the fact that research has always been guided by ethics. But, recently there has been an observed evolution in the development of ethical standards. As this research deals with consumerism, participants had the right to be protected and informed about their rights throughout all the stages of the research. The researcher made sure to obtain all the required ethical approval and consents from all the associated actors whether the human participants or the individuals from the store and its management. The foundation stone of ethics in research is the 'informed consent' (Denzin & Lincoln, 2011). It consists of two important words that need careful consideration. First, that is informed as in participants must be fully informed of what will be asked of them, how the data will be used and what (if any) consequences there could be. Second, that is consent as in participants must provide explicit consent to taking part in the research including understanding their rights to access to their information and the right to withdraw at any point. It could be said, the informed consent is perceived as a contract between researcher and the participants. Moreover, all issues related to conflict of interest, risk of harm (harm can range from physical, resource loss like time and effort and emotional) and confidentiality were resolved and communicated so that, there are no

obstacles to the research. As stated, the identity of participants was kept confidential as anonymity and confidentiality is an important right to the participants. Furthermore, the researcher made sure that an ethical approach was used during the questionnaire development phase and that the research was conducted in an ethical manner. In other words, the questionnaire was developed by the researcher to serve the sole purpose of this research. All the instruments and scales that were used from previous studies were cited in the thesis.

Ethical concerns were considered towards the lack of researcher's bias before, during and after the data collection and coding afterwards. This issue was highly important during all the research phases and data collections so that the results were as real as possible. First, the data collection of this research was compiled according to Northumbria University's ethics regulations. Accordingly, ethical approval was granted from the ethical committee prior to data collection. Second, communicated consent was obtained for the store's owners and management while meeting with them informally and respondents before filling out the questionnaires. This came after explaining the reasons and benefits for this study and how the data would be dealt with and stored besides the description of the study with all the rights and ethical concerns that were displayed at the start of the questionnaire. Also, all the participants were informed of their right to withdraw at any point of the research. The researcher made sure they were annoyed by the data collection process. All the data gathered were reviewed and handled in confidence and all completed questionnaires were stored safely with the researcher with no access to anyone.

3.12. Social desirability bias

Social desirability bias occurs when participants provide answers that differ from their actual attitudes, values or behaviours. If answers change for impression management as to look better to others or/ and self-deception as to feel good about themselves and/ or identity definition. Moreover, in face-to-face interviews impression management can occur when the researcher interacts with the subject (Larson, 2019). The social desirability bias is listed from the limitation of this research despite the researcher various attempts to prevent it as to not interfere with the results much. Some of the tactics that were used to reduce such effects were

using forced-choice items while self-administering the questionnaire which proved less biasness according to past studies (Larson, 2019). Also, the researcher tried to boost the consumer's honesty through maintaining anonymity and adding confidentiality assurances in efforts of shrinking this bias. In the future, the researcher will consider using both general personality scales and social desirability bias scales. This is to improve the bias control as per Perinelli and Gremigni (2016) recommendations mainly in cases of cross-country comparative research as some cultures have much higher levels of bias.

3.13. Summary

In the current chapter, the methodology of the research study was presented. As the research aimed at discovering and improving the understanding of the consumer's organic food purchase behavioural decision from a pro-environmental viewpoint, the antecedents that best predict organic food purchase as a result of behaving pro-environmentally within the Egyptian context were explored. Moreover, analyzing the interrelationships and cause and effect influences between the different variables bridge the gap between the attitude-intention-behaviour. The study is expected to contribute to theory and practice by consolidating and extending different theories with other promising relevant variables to construct a solid base of understanding, which in turn will help practitioners develop a deeper understanding towards the organic food purchase behavioural decision and its relation to behaving pro-environmentally. So, in the future such knowledge could be used to encourage consumers to behave pro-environmentally. The research also aims at merging the Bitner's (1992) service-scape paradigm different dimensions within the organic food retail industry in efforts of developing a holistic framework that expands and enriches its understanding. By doing so, the influential effect of variables on the entire consumer organic food purchase decision is realized. The results will unlock a lot of controversial areas in the literature when it comes to such a new phenomenon, especially in a retailing pro-environmental context. Since, every person behaves differently based on exposure to different psychological, social and contextual factors, the results would give more logic to the variables and their relationships.

The chapter also presented the validation of variables, questionnaire design, pilot study data collection, analyses, reflections and ethical considerations.

Moreover, the different quantitative methods were summarized and the research specific one was discussed according to the investigation. The pilot study's reflections provided a solid ground for the main quantitative data collection. The chapter elaborates on how the researcher would have dependable results that can benefit and contribute to the present and future environmental status. The chapter proceeding presents the statistical analysis and results of the research main data collection, so that the researcher can demonstrate that this study had been completed and gained a suitable level of underpinning knowledge.

4. Empirical Study Analysis and Findings

This chapter presents the statistical analysis and results of the quantitative data collected through the questionnaires that were distributed among walk in consumers in the all-organic grocery store Fresh N Fresh. Furthermore, it demonstrates the various statistical techniques used for analysis, highlighting the research summary and findings. Lastly, the chapter concludes by examining and illustrating the significance and/or insignificance of the research hypotheses previously mentioned in an attempt to answer the research questions discussed earlier. In this study, a questionnaire was developed and used to obtain empirical data from Egyptian consumers based on the research model that demonstrated the relationships between attitude towards organic food purchase, social influence towards organic food purchase, and the anticipation of guilt towards the environment on the intention to purchase organic food. Moreover, the relationships between the intention to purchase organic food and the organic food purchase as a result of pro-environmental behaviour were revealed. In addition, the researcher tested various variables moderating roles. First, the moderating role of perceived behavior control on the relationship between the attitude towards organic food purchase and the intention towards organic food purchase. Second, the moderating role of self-transcendence personal values on the relationships between attitude towards organic food purchase, social influence towards organic food purchase and anticipated guilt towards the environment and intention towards organic food purchase. Third, the moderating role of store's atmospherics on the relationship between intention to purchase and purchase. On the other hand, the moderating role of store's atmospherics on the relationship between intention towards organic food purchase and pro-environmental behaviour. Furthermore, the research presents the service-scape phenomena through assessing the effect of various antecedents on the consumer's in-store experience.

All the respondents' answers were coded and analyzed using SPSS (PASW Statistics Data Editor 24) and AMOS 23 software package. Running different statistical tests made it possible to draw conclusions demonstrating the survey outcomes. The chapter discusses the findings beginning with a descriptive analysis through computing the means and standard deviation for the research variables. This is considered as a first step of analysis as it provides a summary of the variables

showing the central tendency and dispersion of the data collected. The descriptive statistics is a way to illustrate and understand characteristics of a specific data set, by making short summaries about the sample and measures of the data. Next, the data had to be ready in response to testing the research hypotheses using the structural equation modeling. This is done through cleaning the data from outliers, verifying normality assumption, testing multicollinearity problem and testing the data for validity and reliability. The data were cleaned using outliers testing to exclude any problematic data from the sample and only use reliable and valid data (Hair *et al.*, 2016). This step led to more consistent results which increased the overall research accuracy and dependability. Furthermore, normality test was run as an underlying assumption in parametric testing. The normal distribution of the data under study was verified to determine whether a data set was normal or well-modeled. This step was essential to be able to rely on the structural equation modeling that was done for hypotheses testing. In addition, running a multicollinearity test shows whether any of the variables in the model were highly correlated. After cleaning the data from outliers, verifying the assumption of normally distributed data and checking the multicollinearity problem, the researcher proceeded with the measurement model as a preliminary step for the structural equation modeling. To conduct the measurement model validity (construct, convergent and discriminant), reliability tests were administered. These tests were done using Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), Cronbach's alpha and Average Variance Extracted (AVE). First, the Exploratory Factor Analysis test expressed the significance of each variable, which helped the researcher eliminate insignificant variables in the model. Second, the Confirmatory Factor Analysis test confirmed the factor structure of the data set extracted from the previous test, presenting the factor loading of each variable and the fit of the model as a whole. Third, the Cronbach's alpha test ensured the reliability of the constructs in the model making the results more dependable which led to better research outcomes. Fourth, the Average Variance Extracted test indicated that items within a construct measures the matching construct and not other ones. Finally, the Structural Equation Modeling (SEM) is applied through which results and findings are observed and presented to test the research hypotheses and the relationships between the latent constructs.

4.1. Descriptive Analysis for the Research Variables

In this research, the descriptive analysis provided a summary of the research variables. It showed the researcher the extent of variation between the respondents' answers. The analysis figured out the average responses by computing the responses frequencies and the mean values of the variables. The means, standard deviations and frequencies are presented below. Before administering the descriptive analysis for the research variables, a socio-demographic analysis using patterns of simple frequencies and relative frequencies is displayed as a start. This is considered as an initial step of analysis just as a mean to describe patterns of data gained from the questions. Understanding the sample socio-demographic characteristics gives the researcher a general idea about the population as a whole. Also, these data could be used to figure out justifications for the research findings later. Moreover, these data can extract beneficial outcomes and new insights that could be useful for future research or work. The following table illustrates the simple frequencies derived from the questionnaire concerning the socio-demographic characteristics of the respondents.

Table (4.1): Descriptive Analysis for Demographics

Items	Frequency	Percent
Age		
▪ 18 - 24	35	8.7%
▪ 25 - 34	156	38.7%
▪ 35 - 44	122	30.3%
▪ 45 – 54	54	13.4%
▪ 55-64	19	4.7%
▪ 65 years or older	14	3.5%
Missing	3	0.7%
Total	403	100%
Gender		
▪ Male	108	26.8%
Female	280	69.5%
Missing	15	3.7%
Total	403	100%
Average Monthly (Household) Income		
▪ Less than 1,000 L.E	2	5%
▪ 1,001-5,000 L.E	50	12.4%
▪ 5,001-10,000 L.E	108	26.8%

<ul style="list-style-type: none"> ▪ 10,001-15,000L. E ▪ 15,001-20,000L. E ▪ 20,001-25,000L. E ▪ 25,001-35,000L. E Above 35,000L. E Missing Total 	<p>69 47 35 45 31 16 403</p>	<p>17.1% 11.7% 8.7% 11.2% 7.7% 4% 100%</p>
<p>Occupation</p> <ul style="list-style-type: none"> ▪ Student ▪ Housewife ▪ Self-employed ▪ Private sector employee ▪ Public sector employee ▪ Retired ▪ Unemployed Other Missing Total 	<p>17 67 57 149 47 18 10 31 7 403</p>	<p>4.2% 16.6% 14.1% 37% 11.7% 4.5% 2.5% 7.7% 1.7 100</p>
<p>City of Residence</p> <ul style="list-style-type: none"> ▪ Cairo ▪ Alexandria Other Missing Total 	<p>46 326 13 18 403</p>	<p>11.4% 80.9% 3.2% 4.5% 100</p>
<p>Marital Status</p> <ul style="list-style-type: none"> ▪ Single ▪ Married ▪ Divorced ▪ Widowed Missing Total 	<p>142 203 48 4 6 403</p>	<p>35.2% 50.4% 11.9% 1% 1.5% 100%</p>
<p>Level of Education</p> <ul style="list-style-type: none"> ▪ No schooling completed ▪ High school graduate ▪ University / College graduate ▪ Post college graduate ▪ Other Missing Total 	<p>0 14 298 71 11 9 403</p>	<p>0 3.5% 73.9% 17.6% 2.7% 2.2% 100%</p>

As shown in Table (4.1), the majority of the sample is married females ranging between 25-44 years old. Moreover, almost half of the sample is within the average monthly income of 5,001 – 15,000 Egyptian pounds. The sample is mostly

Alexandrian housewives or private sector employees with a university/college degree. Accordingly, this preliminary analysis acted as a foundation for later in-depth analysis and justifications in the findings.

A descriptive analysis summarizing the mean values for the research variables: attitude towards organic food purchase, social influence towards organic food purchase, anticipated guilt towards the environment, perceived behavioural control, self-transcendence values, intention towards organic food purchase, organic food purchase, store's atmospherics and pro-environmental behaviour is presented in Table (4.2).

Table (4.2): Descriptive Analysis of the Research Variables

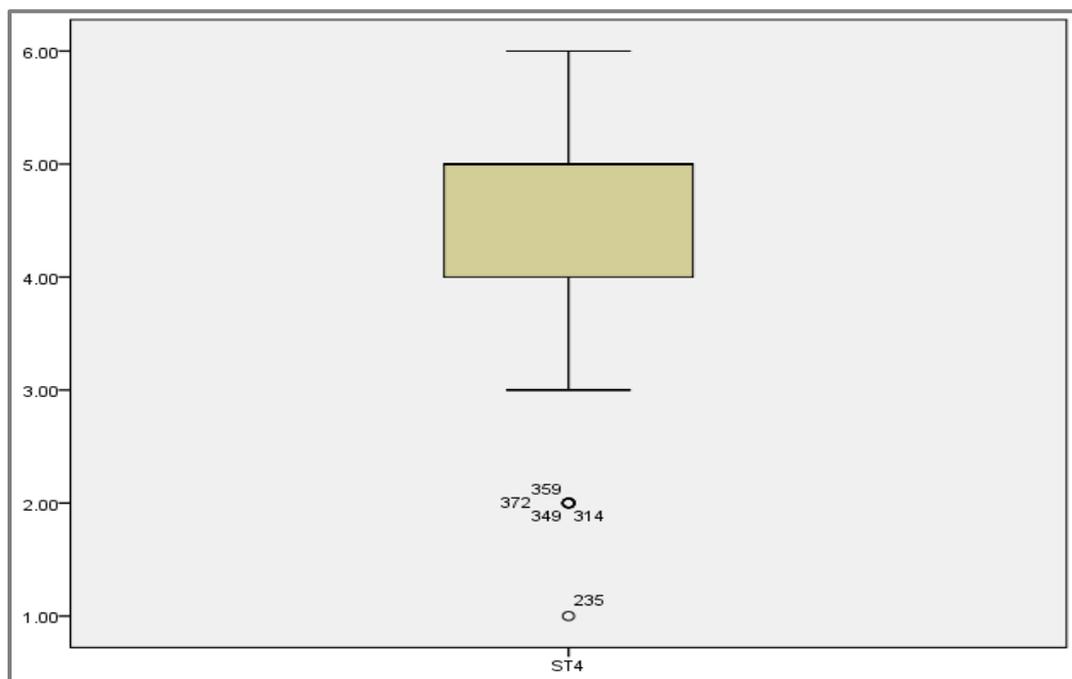
Variables	N	Mean	Std. Deviation	Frequencies						
				1	2	3	4	5	6	7
Attitude towards organic food purchase	403	5.581	1.24801	0	4	17	70	81	112	119
Social Influence towards organic food purchase	403	4.218	1.51673	11	47	74	99	85	57	30
Anticipated Guilt towards the environment	403	3.204	1.67756	91	57	74	89	59	18	15
Intention towards organic food purchase	403	5.218	1.35564	0	16	27	81	85	117	77
Pro-Environmental Behaviour	403	4.303	1.27262	7	23	73	120	115	48	17
Organic Food Purchase	403	2.658	1.38106	92	117	89	67	23	10	5
Self-Transcendence values	403	3.953	0.89513	2	24	87	168	122	0	0

Variables	N	Mean	Std. Deviation	Frequencies						
				1	2	3	4	5	6	7
Perceived Behavioral Control	403	5.127	1.32386	4	7	37	74	108	110	63
Store Atmospherics	403	5.685	1.09837	1	7	3	40	103	151	98

It could be claimed that “Store’s Atmospherics” has the highest mean (5.685), followed by the “Attitude towards organic food purchase” (5.581). On the contrary, “Organic food purchase” has the lowest mean (2.658). Looking at the standard deviation, it could be noticed that “Anticipated Guilt” has the highest standard deviation (1.67756) with respect to its mean (3.204). This implies that the respondents’ responses when it comes to the anticipation of guilt feeling have the highest level of variation in respect to other constructs. In contrast, the “Self-Transcendence values” construct has the lowest standard deviation (0.89513), suggesting that it has a low level of variation concentrated in zones 4 (neutral) and 5 (somewhat agree).

4.2. Data Cleaning

As a first step, data were cleaned by detecting outliers and manipulating the data according to the results found (to clean the data) in order to have normally distributed. Outliers are the extreme values of the data that are relatively far from the frequent responses of the sample under study. According to Hair *et al.* (2016), outliers could be deleted from the sample under study or replaced with averages as long as they represent a maximum of 10 percent of the sample under study. A normally distributed data means that they have the bell-shaped figure with no skewness and no kurtosis. It was found that some of the statements under study were suffering from outliers. One example of the data suffering outliers was the item (ST4) (self-transcendence values) in cases number 359, 372, 349, 314, and 235 as



illustrated in Figure (4.1). Within this research, observations representing outliers were replaced with the average value of the data to be able to solve the problem of having outliers.

Figure (4.1): ST4 Boxplot

The next steps were applying the Exploratory Factor Analysis (EFA) and the Confirmatory Factor Analysis (CFA). The Exploratory factor analysis (EFA) was applied to differentiate between each construct by loading items to each factor. Items with weak loadings or cross loading were excluded to be able to rely on items that are adequately loading on a specific factor. Exploratory Factor Analysis (EFA)

used the maximum likelihood estimation (MLE) method (the method used by the structural equation modeling), where each antecedent was examined for its construct validity. For differentiation, the researcher used the Varimax method for factor loading to be able to identify each construct (Sekaran & Bougie, 2015). For the variable to be considered significant (adequately loading) the factor loading should be greater than 0.4. On the contrary, variables with factor loading lower than 0.4 and/or variables with cross-loading on more than one factor were to be eliminated from the analysis as they were considered as insignificant (Hair, *et al.*, 2016).

In this study, some items had weak loading and/or cross loading when computing the corresponding variables. The table (4.3) shows the deleted or ignored statements due to their weak factor loadings of less than 0.4 (Hair *et al.*, 2016).

Table (4.3): Items Deleted from Research Variables

Variables	Items Deleted	Factor Loadings	Description
Attitude towards organic food purchase	ATT1	0.304	Cognitive attitude towards pro-environmental behaviour
	ATT2	0.374	
Social Influence towards organic food purchase	SI1	0.302	Social influence towards pro-environmental behaviour
	SI2	0.313	
Anticipated Guilt towards the environment	G3	0.302	Anticipated guilt towards the purchase of organic food
	G4	0.304	
Intention towards organic food purchase	I3	0.319	Intention towards the purchase of organic food
	I4	0.308	
Pro-environmental Behaviour	PRO1	0.169	Behaviours related to laundry and air conditioning
	PRO2	0.343	
	PRO3	0.396	
	PRO4	0.223	
	PRO7	0.181	
	PRO10	0.136	

Self-Transcendence Values	ST1	0.195	All the benevolence values and the nature and tolerance from the universalism values
	ST2	0.17	
	ST3	0.202	
	ST4	0.182	
	ST5	0.139	
	ST6	0.199	
	ST10	0.305	
	ST11	0.314	
	ST12	0.417	
	ST13	0.357	
	ST14	0.279	
	ST15	0.199	
Perceived Behavioral Control	PBC3	0.372	Perceived control towards the purchase of organic food
	PBC4	0.313	
Store Atmospherics	SA1	-0.422	Elements related to lighting and music
	SA2	-0.317	

Based on Table (4.3), it could be observed that two statements (ATT1 and ATT2) were deleted from the “Attitude towards organic food purchase” variable. On the same note, two statements (SI1 and SI2) were deleted from the “Social Influence towards organic food purchase” variable. Moreover, two statements (AG3 and AG4) were deleted from the “Anticipated Guilt towards the environment” variable. Similarly, two statements (I13 and I14) were deleted from the “Intention towards the organic food purchase” variable. Also, six statements (PEB1, PEB2, PEB3, PEB4, PEB7 and PED10) were deleted from the “pro-environmental behaviour” variable. Meanwhile, twelve statements (ST1, ST2, ST3, ST4, ST5, ST6, ST10, ST11, ST12, ST13, ST14 and ST15) were deleted from the “Self-Transcendence values” variable. When it comes to the “Perceived Behavioral Control” variable, two statements (PBC3 and PBC4) were excluded. Similarly, two statements (SA1 and SA2) were deleted from “Store Atmospherics”.

After deleting the statements mentioned above, the variables were re-constructed. The research constructs with the items included in each construct using the pattern matrix of the exploratory factor analysis applied to the research variables are displayed in table (4.4).

Table (4.4): Exploratory Factor Analysis for Research Variables

Component									
	1	2	3	4	5	6	7	8	9
ATT2	0.595								
ATT3	0.801								
ATT4	0.843								
ATT5	0.792								
ATT6	0.772								
ATT7	0.863								
ATT8	0.849								
FP1		0.682							
FP2		0.742							
FP3		0.842							
FP4		0.785							
FP5		0.832							
FP6		0.808							
SA3			0.789						
SA4			0.778						
SA5			0.844						
SA6			0.801						
PRO5				0.817					
PRO6				0.803					
PRO8				0.667					
PRO9				0.667					
ST7					0.818				
ST8					0.848				
ST9					0.805				

I1						0.851			
I2						0.849			
SI3							0.851		
SI4							0.83		
G1								0.876	
G2								0.851	
PBC1									0.895
PBC2									0.778

According to the above analysis, it could be realized that:

- The cognitive aspect of behaving pro-environmentally in the “attitude towards organic food purchase” construct is insignificant (0.304 and 0.374) as compared to the affective attitude of pro-environmental behaviour and the cognitive and affective attitude to buying organic food that are significant (0.595, 0.801, 0.843, 0.792, 0.772, 0.863 and 0.849). This implies that when consumers have an attitude towards buying organic food as an act of pro-environmental behaviour, the cognitive influence on such attitude is weak.
- The effect of the “social influence” for behaving pro-environmentally was proved insignificant (0.302 and 0.313) unlike its significant effect (0.851 and 0.83) on buying organic food. Therefore, the social influence for acting pro-environmentally has a weak to moderate effect.
- The anticipated feeling of guilt showed significance with pro-environmental behaviour (0.876 and 0.851) and insignificance (0.302 and 0.304) with buying organic food. This, to a great extent, could be the result of consumers not knowing the consequences or understanding the effect of their purchase behaviour on the environment (environmental awareness).
- Although the consumer’s control perception shows a strong impact (0.895 and 0.778) on behaving in a pro-environmental manner, Yet the perceived behavioural control impact on buying organic food shows a more moderate impact (0.372 and 0.313). Therefore, consumers believe that they are in control when trying to manage the environment through their behaviour.

- The “Self- Transcendence values” construct was assessed through 15 items representing subcategories that makeup the two categories (Universalism and Benevolence) in the self-transcendence values. The universalism – concern values show the highest significant level (0.818, 0.848 and 0.805) compared to all the other categories in the “self- Transcendence values” construct. Moreover, the universalism – nature follows scoring values very near to the accepted significant level (0.305, 0.314 and 0.417) as compared to the universalism – tolerance. It is noticed that the benevolence values all proved insignificant (0.195, 0.172, 0.202, 0.182, 0.139 and 0.199). This implies that the universalism impact is quiet high with the concern having the highest impact followed by the nature having a moderate impact.
- Interestingly, the intention to behave pro-environmentally was proven highly significant (0.851 and 0.849) as compared to the intention to purchase organic food whose values were very close to the accepted significant level (0.319 and 0.308). This shows that the intention to behave in a pro-environmental manner has a strong impact on the purchase intention of organic food as a whole.
- Measuring the “pro-environmental behaviour” construct was done through indicating the likelihood of consumers performing other pro-environmental activities. Ten different behaviours were questioned. It could be realized that only four appears to be significant (0.817, 0.803, 0.667 and 0.667) versus six that appears insignificant (0.169, 0.343, 0.396, 0.223, 0.181 and 0.136). The significant ones are concerned with recycling, reusing and communicating environmental issues and problems in comparison to other insignificant activities related to doing laundry and air conditioning usage. This is logical as it is aligned with the literature that states that developing countries like Egypt considers novel implementation of legislation concerning waste management. Where, most recycling and re-usage services are currently offered to a limited minority of the population living in wealthy areas (Di Maria *et al.*, 2019; Mostafa, 2020) explaining why this study’s population was aware of these specific activities. In addition, the population was mainly well-educated females, justifying why such issues and problems were talked about. This is parallel again with the literature that states that women are more sensitive to environmental issues, perceive them better and care more

about the quality of the environment than men do and so consider their environmental actions relating to society as a whole (Dipietro *et al.*, 2013; D'Souza *et al.*, 2007; Gronhoj & Olander, 2007; Mostafa, 2009; Suki, 2013). Also, research related to education level shows that the more educated a person is, the more they are environmentally concerned and tend to know about the environment. They have stronger positive opinions and values concerned with environmental practices (Hu *et al.*, 2010).

- The “Store Atmospherics” construct was measured against six different items, where four out of the variables had high significant levels (0.789, 0.778, 0.844 and 0.801). The presentation of the visual merchandise scored the highest followed by the location and parking facilities, smell and store’s layout. The store’s lighting and background music turned out insignificant. This highlights the items level of impact on the consumer decision within the situation environment.
- The construct “Organic food purchase” was measured across six different items from past literature related to availability, price, information, and trust in label, benefits and quality. All of the items show high significance level (0.682, 0.742, 0.842, 0.785, 0.832 and 0.808). This suggests that consumers consider these elements when deciding to buy organic food. These results matched previous researchers’ results (Chen & Chai, 2010; Chen & Chang, 2012; Di pietro *et al.*, 2013; Hu *et al.*, 2010; Lindenberg & Steg, 2007; Luzio & Lemke, 2013; Moser, 2016; Suki, 2013, Zhou, 2013).

4.3. Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is next to know the factor structure of the dataset and confirms the factor structure extracted in the Exploratory Factor Analysis (EFA) before launching the structural equation modeling (SEM). Amos 24 program was used and the maximum likelihood estimation (MLE) method was applied to show the factor loading for each variable and their model fit. It was noticed that the minimum discrepancy (chi-square divided by the degrees of freedom (CMIN/DF) was 2.209. This implies that the measurement model is of a good/excellent fit level with minimum variation which enables the researcher to rely on the results obtained to test the research hypotheses.

A further investigation is done to confirm the result stated above through computing some fit indices for the model such as:

- Goodness of Fit Index (GFI) which examines the extent to which the model is well-fitted. Such fit indices should be within their threshold values (>0.90) to imply that the model fitted is adequately representing the true relationships between the research variables. In this study, the goodness of fit shows a value of ~ 0.88 , which approaches the threshold limit.
- Adjusted Goodness of Fit Index (AGFI) which evaluates the fit of the model versus the number of estimate coefficients or the degrees of freedom (>0.80). In this study, the adjusted goodness of fit index shows a value of ~ 0.85 , this means that the model has a good fit.
- Bentler-Bonett Normed Fit Index (NFI) and Tucker-Lewis index Fit Index (TLI) that measure the incremental fit of the model compared to a null model. In this study, both indices scored greater than 0.8 (~ 0.90 and 0.93 , respectively) proposing a good model fit.
- Comparative Fit Index (CFI) presents the extent to which the tested model is superior to the alternative model established when the manifest covariance matrix is evaluated. This test better performs when the sample size is small (Chen, 2007). In this study, the index has a value (0.941), which is greater than 0.9 , implying a traditional close to great fit index.
- Root Mean Square Residual (RMR) reflects the amount by which the sample variance and covariance differ from their estimates obtained under the assumption that the model is correct. In this study, the value is (0.131), which is larger than the acceptable threshold level.
- Root Mean Square of Approximation (RMSEA) reflects the informative criteria in covariance structure modeling and measures the amount of error present when attempting to estimate the population (Hair *et al*, 2010). In this study, the index has a value of (0.055). Moreover, the PCLOSE has a value of (0.053), which suggests that the model is of a moderate/ good fit.

Having the above-mentioned values, it could be said that most of the values are within the accepted values range which implies the fact that the proposed model

is of a good fit and could be relied on to test the research hypotheses. Table (4.5) shows the indicators value and the recommended values.

Table (4.5): Fit Indices and Thresholds for Measurement Model of Independent Variables

Measure	Results	Threshold
Chi-square/df	2.209	< 2 excellent; < 3 good; < 5 sometimes permissible
P-value	0.000	> 0.05
GFI	0.881	> 0.90
AGFI	0.849	> 0.80
NFI	0.898	> 0.90
TLI	0.930	> 0.95
CFI	0.941	> 0.95 great; > 0.90 traditional; > 0.80 sometimes permissible
RMR	0.131	< 0.09
RMSEA	0.055	< 0.05 good; 0.05-0.10 moderate; > 0.10 bad
PCLOSE	0.053	> 0.05

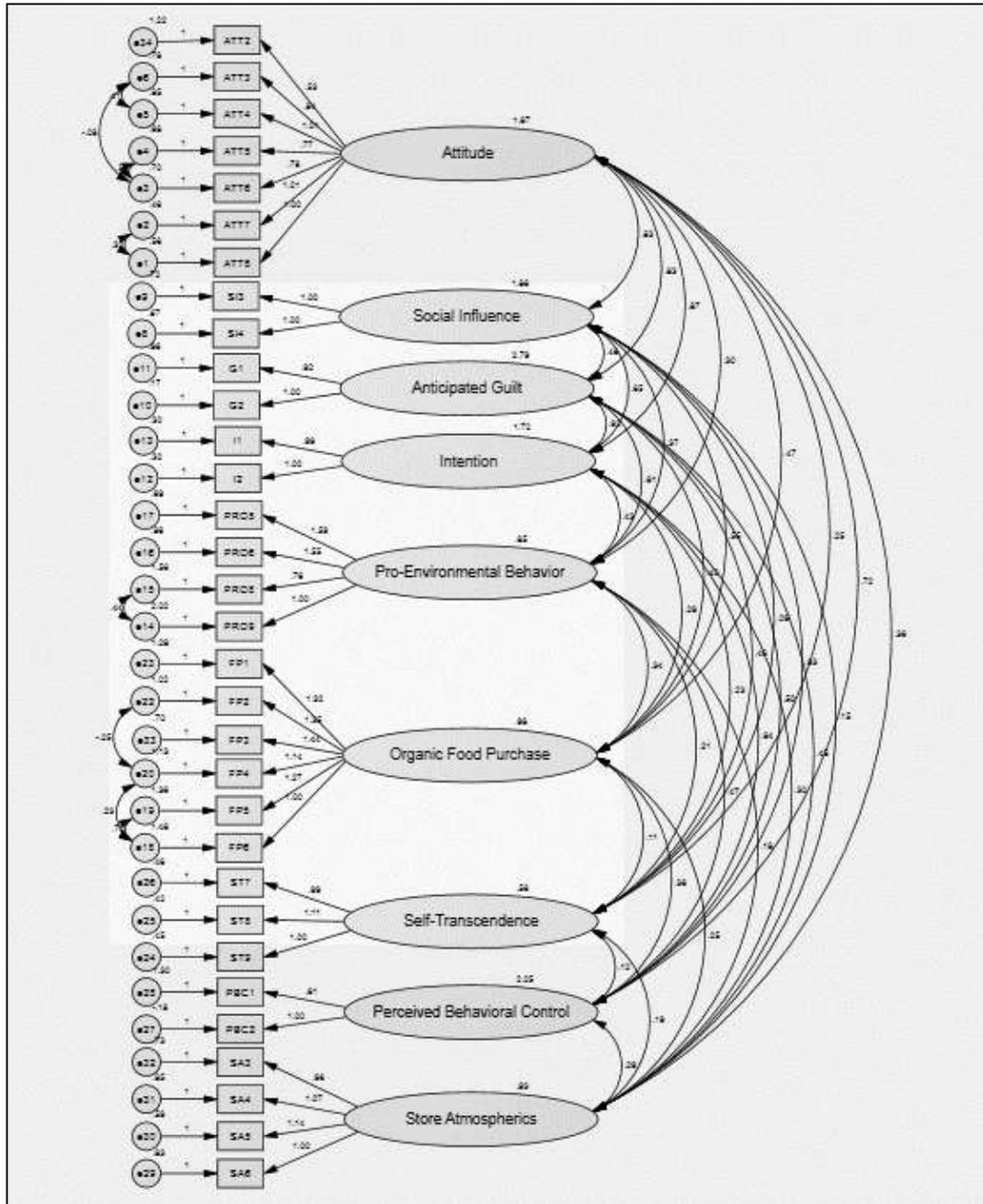


Figure (4.2): Measurement Model using Covariance Method

Moreover, the convergent validity and reliability analysis were tested after the confirmatory factor analysis. The Kaiser-Meyer-Olkin measure of sampling adequacy (KMO), the Bartlett's Sphericity test, the Average Variance Extracted (AVE) and the Cronbach's alpha were calculated and presented in the table below.

Table (4.6): Validity and Reliability Tests for the Research Variables

Variables	KMO	AVE	Cronbach's Alpha	P-Value	Item	Factor Loading
Attitude	0.803	74.715%	0.931	0.000	ATT3	0.685
					ATT4	0.749
					ATT5	0.706
					ATT6	0.693
					ATT7	0.838
					ATT8	0.813
Social Influence	0.500	86.400%	0.843	0.000	SI3	0.864
					SI4	0.864
Anticipated Guilt	0.500	92.380%	0.918	0.000	G3	0.924
					G4	0.924
Intention	0.500	92.343%	0.917	0.000	I1	0.923
					I2	0.923
Pro-Environmental Behavior	0.717	61.629%	0.791	0.000	PRO5	0.734
					PRO6	0.705
					PRO8	0.488
					PRO9	0.539
Organic Food Purchase	0.861	65.206%	0.893	0.000	FP1	0.597
					FP2	0.620
					FP3	0.752
					FP4	0.617
					FP5	0.704
					FP6	0.621
Self-Transcendence	0.710	71.944%	0.805	0.000	ST7	0.704
					ST8	0.747
					ST9	0.708
Perceived Behavioral Control	0.500	82.745%	0.791	0.000	PBC1	0.827
					PBC2	0.827
Store	0.802	67.840%	0.841	0.000	SA3	0.666

Atmospherics					SA4	0.651
					SA5	0.740
					SA6	0.656

The Kaiser-Meyer-Olkin and Bartlett's Sphericity test statistic varies between 0 and 1 with accepted values greater than 0.50 (Kaiser, 1974). Generally, the table shows that all of the variables have a value equal to or greater than 0.50 which presents a good level of adequacy and a significant Bartlett's Sphericity test. Furthermore, the Average Variance Extracted (AVE) ranges from 60 % to more than 90 % which exceeds the minimum threshold of 0.50 (50%), according to Hair *et al.*, (2010). What is more, the Cronbach's alpha values are all greater than 0.70 which is based on Hair *et al.* (2012) and shows a good level of reliability.

It can be noticed from the table that the most reliable constructs are the attitude towards organic food purchase scoring the highest value of 0.931. Similarly, the anticipated guilt towards the environment and the intention to purchase organic food follow with values of 0.918 and 0.917, respectively. On the contrary, the pro-environmental behaviour along with the perceived behavioural control scored the lowest values of 0.791 meaning that they are the least reliable variables in the model.

4.4. Discriminant Validity

This type of validity is used to show that the items used indicating the constructs in the model are more likely testing the corresponding constructs rather than being used to measure other constructs. In other words, it shows that two measures that are not supposed to be related are in fact, unrelated. The Average Variance Extracted (AVE) is calculated and the discrimination is implied if all the values are greater than the squared correlation between them. More precisely, the analysis tests whether the square root of each value belonging to each latent construct is much larger than any correlation among any other latent constructs. Table (4.7) shows the average variance extracted values (which were computed before) on the diagonal of the matrix and the squared correlations of each pair of variables.

Table (4.7): Discriminant Validity of the Research Variables

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Attitude	(0.864)								
	.								
	403								
2. Social Influence	.382**	(0.930)							
	.000	.							
	403	403							
3. Anticipated Guilt	.313**	.312**	(0.961)						
	.000	.000	.						
	403	403	403						
4. Intention	.466**	.356**	.201**	(0.961)					
	.000	.000	.000	.					
	403	403	403	403					
5. Pro-Environmental Behavior	.222**	.253**	.277**	.321**	(0.785)				
	.000	.000	.000	.000	.				
	403	403	403	403	403				
6. Organic Food Purchase	.350**	.356**	.474**	.263**	.315**	(0.808)			
	.000	.000	.000	.000	.000	.			
	403	403	403	403	403	403			
7. Self-Transcendence	.224**	.040	.085	.221**	.205**	.085	(0.848)		
	.000	.429	.087	.000	.000	.089	.		
	403	403	403	403	403	403	403		
8. Perceived Behavioural Control	.316**	.306**	.172**	.428**	.280**	.175**	.141**	(0.910)	
	.000	.000	.001	.000	.000	.000	.004	.	
	403	403	403	403	403	403	403	403	
9. Store Atmospherics	.314**	.137**	.130**	.239**	.162**	.230**	.169**	.143**	(0.824)
	.000	.006	.009	.000	.001	.000	.001	.004	.
	403	403	403	403	403	403	403	403	403

It could be noticed that the values of the average variance extracted corresponding to each construct is greater than the correlations between the

corresponding construct and the other research variables. Accordingly, this indicates that the research variables have adequate discriminant validity.

The following section verifies the assumptions of the normality and the multicollinearity as a required assumption for using structural equation modeling technique for testing the research hypotheses (Hair *et al.*, 2016).

4.5. Normality Assumption

It is important to determine if a data set is normal or well-modeled because an assessment of the normality of data is a prerequisite for many statistical tests. It is an underlying assumption in parametric testing. In this study, testing the exact normality of the data is done through two common methods:

- Kolmogorov-Smirnov test of normality: This test assesses the normality assumption for samples greater than 50 observations. It indicates that the data are normal, if the p-values obtained are greater than 0.05 (Dag *et al.*, 2018). The Table (4.8) shows the results of Kolmogorov-Smirnov testing accordingly; it can be said that the data are not normally distributed as all the values are below 0.05.

Table (4.8): Kolmogorov-Smirnov Test for the Normality of the Research Variables

	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
Attitude	.205	403	.000
Social Influence	.130	403	.000
Anticipated Guilt	.132	403	.000
Intention	.199	403	.000
Pro-Environmental Behavior	.155	403	.000
Organic Food Purchase	.202	403	.000
Self-Transcendence	.241	403	.000
Perceived Behavioral Control	.175	403	.000
Store Atmospheric	.231	403	.000

Despite the fact that the data turned out to be not exactly normal, still the researcher can test the approximate normality of the data. This is because the research sample size is greater than 150 respondents. The test for approximate normality is conducted through computing the skewness and kurtosis values. Therefore, the second normality test was done.

- Skewness and Kurtosis test of normality: As a general rule of thumb, if the values are within the range of -1.5 to +1.5, then data are considered as normally distributed. On the contrary, if the skewness and kurtosis values are beyond this range, then data are considered as not normally distributed (Mishra, 2019).

Table (4.9) shows the skewness and Kurtosis values of all the variables. Thus, it could be observed that the values of the research variables are within the range of -1.5 to 1.5 which implies that data are normally distributed. This means that the parametric tests could be used.

Table (4.9): Skewness and Kurtosis for the Normality of the Research Variables

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
Attitude	403	-.540	.122	-.583	.243
Social Influence	403	-.004	.122	-.692	.243
Anticipated Guilt	403	.280	.122	-.749	.243
Intention	403	-.486	.122	-.504	.243
Pro-Environmental Behavior	403	-.110	.122	-.119	.243
Organic Food Purchase	403	.752	.122	.207	.243
Self-Transcendence	403	-.577	.122	-.193	.243
Perceived Behavioral Control	403	-.506	.122	-.109	.243
Store Atmospherics	403	-.958	.122	1.432	.243

4.6. Multicollinearity Problem

The multicollinearity problem occurs when two or more variables in the model are highly correlated with each other. This leads to problems with understanding which variables contribute to the variance explained in criterion, as well as technical issues in calculations as redundant information about the criterion are provided. To test if whether this problem exists between the variables, the Variance Inflation Factor (VIF) is computed for each variable in the model. If the Variance Inflation Factor (VIF) has values less than 5, then there is no multicollinearity problem between the research variables. The values for all the variables are computed and presented below. It could be realized that all the Variance Inflation Factor (VIF) values are all less than 5. Consequently, the independent variables in the research model are not inter-correlated which states that the problem of multicollinearity does not exist within the current study.

Table (4.10): Variance Inflation Factor (VIF) Values of the Research Variables

Variables	VIF
Attitude	1.477
Social Influence	1.340
Anticipated Guilt	1.163
Intention	1.431
Self-Transcendence	1.074
Perceived Behavioral Control	1.262
Store Atmospheric	1.093

4.7. Hypotheses Testing

In the following section, the research hypotheses are to be tested using the Structural Equation Modeling (SEM). This statistical modeling technique is the most widely used technique among behavioural research. It signifies the relationships between theoretical constructs by representing the path coefficients between the variables. For a hypothesis to be proven significant, the P-value has to be less than 0.05 (Hox & Bechger, 1998). Table (4.11) presents the values for the Structural Equation Modeling (SEM).

Table (4.11): SEM Model for the Effect of the Model

			Estimate	S.E.	P
Intention	<---	Attitude	4.493	.899	***
Intention	<---	ATT.PBC	-.425	.105	***
Intention	<---	Social Influence	2.768	.661	***
Intention	<---	Anticipated Guilt	.075	.157	.635
Intention	<---	ATT.ST	-.646	.175	***
Intention	<---	SI.ST	-.596	.155	***
Intention	<---	G.ST	-.011	.033	.729
Intention	<---	Perceived Behavioural Control	2.565	.599	***
Intention	<---	Self-Transcendence	7.021	1.425	***
Pro-Environmental Behaviour	<---	Intention	-.025	.101	.804
Pro-Environmental Behaviour	<---	I.SA	.043	.017	.012
Pro-Environmental Behaviour	<---	Store Atmospheric	-.174	.097	.072
Organic Food Purchase	<---	I.SA	.068	.024	.004
Organic Food Purchase	<---	Intention	-.317	.142	.026
Organic Food Purchase	<---	Store Atmospheric	-.158	.136	.246
Organic Food Purchase	<---	Pro-Environmental Behavior	.481	.095	***

It could be realized that the relationship between the attitude towards organic food purchase and intention towards organic food purchase is significant. On the same note, the relationship between the social influence towards organic food

purchase and intention towards organic food purchase is significant. On the contrary, there is an insignificant relationship (.635) between anticipated guilt towards the environment and intention towards organic food purchase.

In addition, it could be noticed that the perceived behavioural control plays a significant moderation role between the attitude towards organic food purchase and intention towards organic food purchase. Moreover, there is a significant moderation role of self-transcendence values on the relationship of the attitude towards organic food purchase and intention towards organic food purchase, on the one hand, and the relationship of the social influence towards organic food purchase and intention towards organic food purchase, on the other. On the contrary, the self-transcendence values had no significant moderation effect (.729) on the relationship between anticipation of guilt towards the environment and intention to purchase organic food.

Furthermore, it could be seen that there is a significant (.026) direct relationship between intention to purchase organic food and the purchase of organic food. This relationship is also moderated (.004) by the interaction of the store's atmospherics and the intention to purchase organic food. On a different note, there is no significant relationship found between intention to purchase organic food and pro-environmental behaviour. Yet, there is a moderation effect from the interaction of store's atmospherics and intention to purchase organic food on pro-environmental behaviour.

In addition, there is a significant relationship observed between organic food purchase and pro-environmental behaviour. This implies that organic food purchasing is impacted by behaving pro-environmentally.

Accordingly, the model fit analyses were computed and table (4.12) below was obtained.

Table (4.12): Fit Indices and Thresholds for Measurement Model of Independent Variables

Measure	Results	Threshold
Chi-square/df	2.696	< 2 excellent; < 3 good; < 5 sometimes permissible

P-value	0.000	> 0.05
GFI	0.860	> 0.80
AGFI	0.815	> 0.80
NFI	0.912	> 0.80
TLI	0.928	> 0.80
CFI	0.942	> 0.95 great; > 0.90 traditional; > 0.80 sometimes permissible
RMR	0.040	< 0.09
RMSEA	0.065	< 0.05 good; 0.05-0.10 moderate; > 0.10 bad
PCLOSE	0.000	> 0.05

It was found that the minimum discrepancy (chi-square divided by the degrees of freedom-(CMIN/DF) is 2.696 which indicates a good fit. Moreover, the probability of getting as larger discrepancy as occurred with the present sample (p-value) is 0.000 which is within the accepted threshold. Furthermore, the goodness of fit (GFI) is 0.860 which is greater than the minimum accepted value of 0.80 and which denotes a good fit index. Similarly, the adjusted goodness of fit index (AGFI) is 0.815 which is greater than the minimum accepted value of 0.80. Additionally, the Bentler-Bonett normed fit index (NFI) is 0.912 which is higher than the threshold and the Tucker-Lewis index or Bentler-Bonett non-normed fit index (TLI) which is 0.928 and-exceeds the minimum accepted threshold level. Also, the comparative fit index (CFI) is 0.942 which marks a high value indicating a very close to great fit. The root mean square residual (RMR) is 0.040 which is accepted. On the same note, the root mean square of approximation (RMSEA) is 0.065 indicating a moderate close to good model fit and (PCLOSE) is 0.000 which indicates the test of exact fit.

To summarize, the indicators values represented above as compared to the recommended values for them suggests that the data fit the model quite well, with the exception of the p-value for the model that may be caused by larger sample size. Figure (4.3) presents the Structural Equation Modelling (SEM) model.

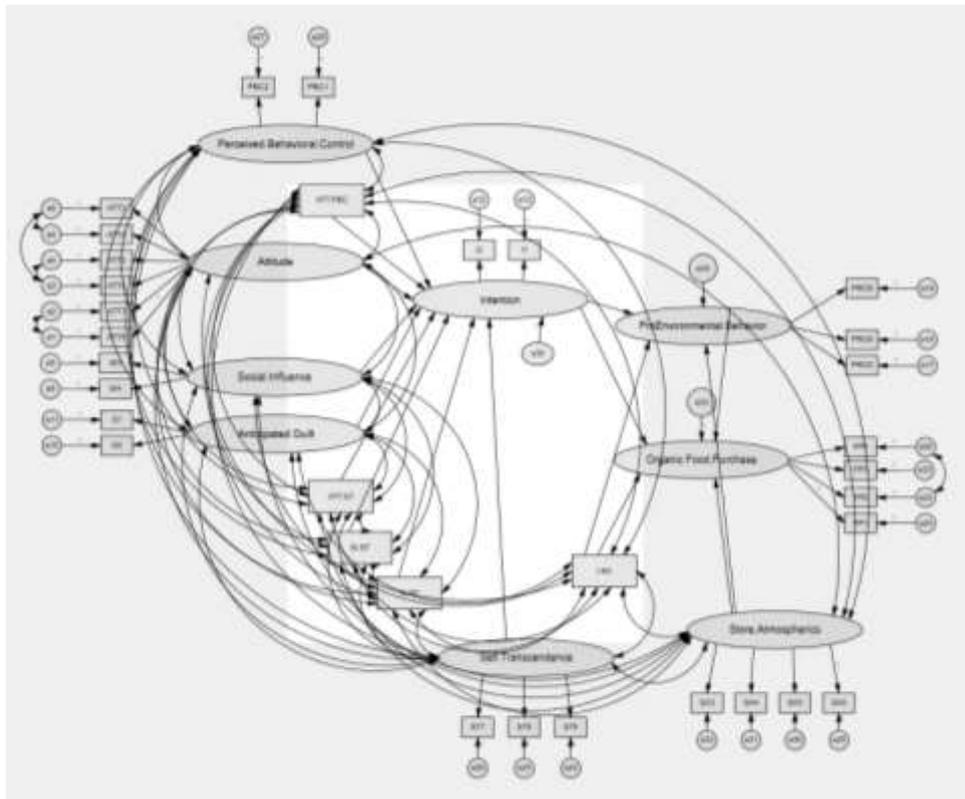


Figure (4.3)-SEM Model Conducted for the Research Model

4.8. Summary

This chapter shows the research findings and results in response to the research hypotheses using SPSS and AMOS. The statistical tests were able to compute the descriptive statistics as well as testing the reliability and validity of the data under study. This was done after the assumptions of normality and multicollinearity were verified in order to be able to rely on the results of the structural equation modeling in testing the hypotheses under study. Moreover, the Structural Equation Modeling (SEM) model was conducted after the exploratory and confirmatory factor analysis.

From the results, it could be concluded that most of the research variables are valid and reliable. Furthermore, the research model is of a good fit with the variety of measurement fit indices in the acceptable threshold level. To end this chapter, the

researcher summarized all of the research hypotheses indicating whether they are accepted or rejected in order to start discussing them in the next chapter.

Table (6.13) shows the results of the research hypotheses after being tested using the SEM model.

Table (6.13): Summary of the Research Findings

Hypothesis		Dependent variable	Independent variable	Moderator	Result
H1a:	There is a positive relationship between attitude towards organic food purchase and intention towards organic food purchase	Intention towards organic food purchase	Attitude towards organic food purchase		Accepted
H1b:	There is a positive relationship between social influence towards organic food purchase (representing the social service-scape) and intention towards organic food purchase	Intention towards organic food purchase	Social Influence towards organic food purchase		Accepted
H1c:	There is a positive relationship between anticipated guilt towards the environment (representing the natural service-scape) and intention towards organic food purchase	Intention towards organic food purchase	Anticipated guilt towards the environment		Rejected
H2a:	Self-transcendence values (representing the natural	Intention towards organic	Attitude towards	Self-transcenden	Accepted

	service-scape) moderates the relationship between attitude towards organic food purchase and intention towards organic food purchase	food purchase	organic food purchase	ce values	
H2b:	Self-transcendence values (representing the natural service-scape) moderates the relationship between social influence towards organic food purchase and intention towards organic food purchase	Intention towards organic food purchase	Social Influence towards organic food purchase	Self-transcendence values	Accepted
H2c:	Self-transcendence values (representing the natural service-scape) moderates the relationship between anticipated guilt towards the environment and intention towards organic food purchase	Intention towards organic food purchase	Anticipated guilt towards the environment	Self-transcendence values	Rejected
H2d:	Perceived Behavioural Control moderates the relationship between attitude towards organic food purchase and intention towards organic food purchase	Intention towards organic food purchase	Attitude towards organic food purchase	Perceived Behavioural Control	Accepted
H3a:	There is a positive relationship between intention towards organic food purchase and organic	Organic food purchase behaviour	Intention towards organic food purchase		Accepted

	food purchase behaviour				
H3b:	There is a positive relationship between intention towards organic food purchase and pro-environmental behaviour	Pro-environmental behaviour	Intention towards organic food purchase		Rejected
H4a:	Store's atmospherics (representing the physical service-scape) moderates the relationship between intention towards organic food purchase and organic food purchase behaviour	Organic food purchase behaviour	Intention towards organic food purchase	Store's Atmospherics	Accepted
H4b:	Store's atmospherics (representing the physical service-scape) moderates the relationship between intention towards organic food purchase and pro-environmental behaviour.	Pro-environmental behaviour	Intention towards organic food purchase	Store's Atmospherics	Accepted
H5:	There is a positive relationship between pro-environmental behaviour (representing the natural service-scape) and organic food purchase behaviour.	Organic food purchase behaviour	Pro-environmental behaviour		Accepted

5. Discussion

The aim of the chapter is to discuss the research results that were obtained by synthesizing all the responses that were collected from questionnaires distributed. This is with respect to the opinions of experts and academics presented in the previous chapters, in order to reflect the organic food/pro-environmental consumer purchase decision in the Egyptian market with respect to the service-scape. This discussion demonstrates all the researcher's interpretations and understanding of past literature in relation to understanding the current organic food market from the pro-environmental standpoint in Egypt. As was stated in the literature review, consumers' knowledge concerning their consumption choices and its environmental consequences is very little (Camilleri *et al.*, 2019; Ginn & Lickel, 2020). In addition to, limited knowledge available on the dimensions of the service-scape in general and its influence on the grocery retailing industry in specific (Navas *et al.*, 2018). Accordingly, this research attempts to discuss the finding in efforts of understanding the organic food purchase decision resulting from pro-environmental behaviour. Moreover, little attention is given to pro-environmental behaviours topics in general and organic food behaviour topics in specific in developing contexts like Egypt. Add on, the serious and worrying environmental challenges faced by a country like Egypt when trying to reach a balance between economic development and environmental welfare (Adly, 2019; Subandi *et al.*, 2019) Consequently, there is a limited research body related to these areas (Alzubaidi *et al.*, 2021) and that is why this research findings and discussion is vital.

For an appropriate sequence, the chapter presents the results guided by the research hypotheses and through answering the research questions. The work presented in the previous chapters of this thesis has enabled the researcher to highlight the main findings discovered through the research framework proposed and to illustrate how the research objectives were achieved.

5.1. Hypotheses (H1a, H1b and H1c)

The first section is divided into three subsections related to hypotheses H1a, H1b and H1c answering the research questions Q1A, Q1B, Q1C, Q4A and Q4B.

The first two hypotheses were proved significant and approved while; the third hypothesis was proven insignificant and got rejected.

5.1.1. Hypothesis (H1a)

The first hypothesis (H1a) assumed a positive influential relationship between attitude towards organic food purchase and intention and was proved to be significant. The “Attitude towards organic food purchase” construct has one of the highest means (5.581), and highest reliability (0.931) and with a satisfactory level of validity. The construct as a whole is considered powerful in influencing the intention. Based on the statistics, it could be noticed that consumer’s intention is the output of both the cognitive and affective attitudes. The research results show that attitude influence intention from different aspects and by different powers. The rational aspect drawing on the value proposition offered, the emotional aspect drawing on how organic food makes one feel and an emotional-based environmental evaluation drawing on the well-being of the environment and human race. In comparison with the Theory of Planned Behaviour, the results are found logical.

Most everyday activities and behaviours are accomplished without much cognitive effort mainly in low cost/involvement domain such as food grocery shopping (Ghosh *et al.*, 2019). The results are based on the fact that according to previous studies, organic food purchasing is considered a new behaviour in the Egyptian market with limited present information and previous knowledge. Accordingly, for a positive attitude consumers had to rely on his/her cognitive thinking to gather some information related to the organic food as to become more knowledgeable about it. This is because, knowledge is a characteristic that influences all stages of the decision-making process (Rossanty & Nasution, 2018). Furthermore, the environmental clues within the store worked parallel to creating an emotional state in the consumer’s mind which was the result of them just coming across the organic concept and a whole pro-environmental store experience.

Still, it was hard to relate abstract environmental problems to simple daily activities maybe because of the limited knowledge and information available at this stage. Besides, the unawareness of the environmental consequences associated with purchasing organic food. Also, even if some consumers were able to somehow relate the defensive mechanism (of not feeling responsible) impacted the perception. As in

a simple private sphere behavioural task like organic food purchasing is only significant in aggregation and that individual's small pro-environmental actions were to be seen as making no difference in minimizing large scale environmental problems. Such abstract global problems need global and societal behavioural efforts (Liobikienė & Poškus, 2019; Mi *et al.*, 2020).

According to researchers like Wu and Zhu, (2021), the more intense an individual's emotions to environmental degradation and problems the better engagement in pro-environmental behaviour (i.e., organic food purchasing). Likewise, consumers with prior experience in pro-environmental activities would have stronger cognitive and affective attitude towards behavioural intentions and behaviours (Ajzen, 2011). But literature also shows a widespread consumer's misunderstanding about the meaning of "organic" when it comes to food (Leonidou & Skarmeas, 2017). For a lot of consumers, the organic concept is vague with no agreement on its standards, which leads to various meanings in different markets (Jensen *et al.*, 2019). As a result, such contradictions may have hindered the environmental connection to organic food during the attitude formation stage.

All of the above interpretations were consistent with a lot of the past and present studies in the literature. Some scholars like Fleseriu *et al.*, (2020) spotted the differences between the cognitive and affective attitudinal components and stated that they do not always match. They discovered that when the two components were not equally influential the affective one tends to predominate as it is more accessible to the mind. This goes with the research finding where the affective emotional component was significant unlike the cognitive one. Other studies like (Ham *et al.*, 2018) stated that the attitude is mainly responsible for the variance in the intention within the organic food context which is parallel to this research results. Also, researchers like Nguyen *et al.*, (2019) and Gholamzadehmir *et al.*, (2019) stated that environmental attitudes positively and strongly affect the intention to purchase organic food and the intention to behave pro-environmentally. Hence, they stress the important role played the attitude towards organic purchasing and the emotional one towards pro-environmental behaving. Moreover, the literature highlighted a lot of the factors that were stated above as reasons for the results in research studies like Abdul-Muhmim, (2007); Aschemann-Witzel and Zielke, (2017); Chen and Chang,

(2012); Di pietro *et al.*, (2013); Hu *et al.*, (2010); Lindberg and Steg, (2007); Morren and Grinstein (2016); Mostafa, (2006); and RD Liang, (2016).

Egypt as a developing country score low on development. Research suggests that the application of the Theory of Planned Behaviour within the pro-environmental behaviour context differs across countries and cultures. From a cultural perspective, countries scoring high on development have more environmental concern thus stronger environmental attitudes as they are more concerned about the environment than those from developing countries (Navarro & Torretta, 2019). Looking in to the literature, it is realized that that attitude influential power on the intention was proved significant in various contexts. For example, a study by Wang *et al.*, (2019) in Kenya and Tanzania assessed personal attitudes and discovered that they were significant predictors of organic purchase intention in both countries. Similarly, within the Middle Eastern region a study administered in Iran showed that attitude towards organic food purchasing was the only predictor of the consumers' intention based on the Theory of Planned Behaviour (Yazdanpanah & Forouzani, 2015). On the contrary, it was observed that the demand for organic products in developed countries continues to substantially increase each year as the pro-environmental farming intends to produce healthier food (Bostan *et al.*, 2019). A study by Rodríguez-Bermúdez *et al.*, (2020) indicated that Spanish consumers do have positive attitudes that lead to positive intentions towards organic food. Lastly, as emphasized by Leonidou, *et al.* (2018), marketing research paid little attention to differences between developed and developing countries. More research studies are needed on differences with regard to emerging economies when it comes to sustainability differentiated products such as organic food as most of the studies available are carried out in developed countries. It is that there is no consumer that would consciously and deliberately harm the environment through his/her consumption (Luzio & Lemke, 2013). Understanding the reasons behind favourable attitudes helps create positive intentions and behaviours later.

5.1.2. Hypothesis (H1b)

The second hypothesis (H1b) assumed a positive influential relationship between the social influence towards organic food purchase and intention was proven to be significant. According to the results, the “Social influence towards

organic food purchase” construct has an adequate mean (4.218), a good reliability (0.843) and a satisfactory level of validity. It could be said that the social influence construct as a whole was found to be a strong predictor of intention. Based on the statistics, that both dimensions (the influence of social norms and the situational social influence) have an equal influential effect (0.851 and 0.83) which signifies the importance of such an expanded construct.

Organic food is perceived as a healthier option when compared to conventional food (Dall’Asta *et al.*, 2020). Moreover, organic food is related to being more appearance conscious and its purchase is related to modernized lifestyles (Ham *et al.*, 2018). Due to increased pressure of newly reshaped social norms towards healthy eating and looking good and in addition to influence from health mavens and social influencers to be modernized, consumers did have positive intentions to purchase organic food. These intentions were established as individuals behave according to the perceptions of the external social pressures as in what is supposed to be done (Han, 2018). It is highlighted in the literature that a reason why one’s own interest and the common interest do not match is that individuals want to behave in appropriate ways according to other people’s expectations (Bai *et al.*, 2020). In this research case, social pressures suggested purchasing organic and that by intentionally doing so individuals could satisfy their functional, emotional and experiential needs and keep up with the society’s new modernized social norms.

From a parallel angle, the social situational surroundings affected the intention to purchase organic food. Interacting and observing other valued and influential people and their behaviours in certain situations vastly influence one’s own intention and behaviour (Wang *et al.*, 2019). In the current study, the grocery store environment had a dominant role in strengthening the social influence on the intention. This is assumed to be because of the interactions with various social actors whether valued individuals, influential ones inside the store and/ or the observations of others during the time spent in the store. It is interpreted that the consumer’s intentions were influenced based on the interaction with humanistic elements whether salespeople, valued company and/ or observing other consumers’ behaviours within the store. Accordingly, the consumer had a chance to gather some information become more knowledgeable which promoted intentions for one reason

or another. Such situational interactions should have helped creating a credible organic food image which directs the intentions from an organic food perspective by communicating the value bundle and concrete benefits of organic food.

In the business world, there is a main focus on understanding the effects of the purchasing environments and not just the products. The literature showed a gap regarding the social influences in the organic food studies. On one hand, some scholars stated that social perceptions about one's behaviour have a great influence on his/her purchase intentions and behaviours like Persaud & Schillo (2017). On the other hand, other scholars showed counterevidence like Varshneya *et al.* (2017). As the results revealed that consumer's organic purchase intentions were influenced by other's perceptions and opinions due to social norms and situational influences. Therefore, this research goes in parallel with scholars who signified the importance of these social influences. More recent example is Ashraf, (2020) who highlighted the important influence of perceived social surroundings on the consumer's organic food intentional behaviour.

Behaving according to social moral norms brings positive rewards of self-esteem (Lin & Hsu, 2013; Sahelices *et al.*, 2021). In order to do so, consumers need to first understand and get aware of the nature of the organic food and its link to the environment. They need to conclude that their individual behaviour would matter. As stated before, organic food purchasing is a new activity in developing countries (Pham *et al.*, 2019). Therefore, relating such purchase behaviour to environmental protection acts during the limited time of the shopping experience is a hard challenge. On the contrary, it was stated that, norms of adopting healthy modern lifestyles influence the intention to purchase organic food. This is assumed to be the triggering influence of the social influence variable. Also, a contributing factor that was observed by the researcher is the very limited base of social models or influencers motivating and backing up purchase decisions from an environmental point of view. Consequently, the social influence affected the intention to purchase organic food but not from a pro-environmental behaviour point of view but from a healthy modernized organic point of view.

From a collectivistic cultural perspective, assessing the social influence in the Egyptian market seemed interesting. Consumers within the Egyptian context

have strong tendencies of subsidizing their individual interests in pursuit of societal views and interests. That is part of why the social influence construct was significant when purchasing organic food. On the contrary, apart from growing pressures for going “green” in developing countries (Martinico-Perez *et al.*, 2018), when it came to environmental well-being, the Egyptian consumers achieved different result. It is interpreted that not having enough environmental awareness, information and knowledge plus the un-presence of opinion leaders and influencers were reasons for hindering the environmental aspect when it comes to the social influence variable.

From another perspective, the social influence construct represented the social dimensional influence of the service-scape on the consumer’s decision. As Bitner left the social and natural dimensions unexplored, the researcher discusses the consumer’s social influence in this given situation from a service-scape standpoint. The social service-scape as expressed did positively affect the consumer’s organic purchase behavioural intention. The assumed interactions that happened by different influential social actors in store and pressures from valued people towards reshaped social norms led consumers to get an intent to purchase organic food as a means to fulfil their needs. These intents are to positively affect the consumer’s organic food purchase decision at the end. The researcher noted that the power of the social influence construct is critical now a days as it’s a time of many chronic diseases and recent global pandemics (Galanakis *et al.*, 2021).

It is assumed that consumers did learn about the valuable characteristics of organic food through the important discussions with valued and influential ones who not only highlighted the functional values of organic food, but also by communicated the health benefits, self-image and environmental benefits of organic food. Furthermore, the social service-scape seemed significant by allowing the consumer to understand the identity of the place and the messages conveyed. In addition, assure them that a place like this has abilities to satisfy their different needs. These research results did match previous results like of Aschemann-Witzel and Zielke, (2017), Ayub *et al.*, (2020), Fleşeriu *et al.*, (2020), Kim and Chung, (2011), Luzio and Lemke, (2013) and Meise *et al.*, (2014) and Testa *et al.*, (2019).

Going back to the relevant literature, it is observed that different consumers have different ways of perceiving information in a given situation, which affects

their experience differently (Anania *et al.*, 2018). Moreover, consumers are affected by external influences more strongly than the internal influences when in the store (Lindberg, 2018). Therefore, the social influence construct showed that the variables of the Theory of Planned Behaviour go beyond the theory that was introduced long ago. The extended social influence variable deepened the understanding of the holistic consumer organic food decision making from an intellectual cognitive, affective and social perspectives. Studies that studied the same variables in different country domain were like Pham *et al.*, (2019) who stated that developing countries have received little attention when it came to persuading the consumer's intention to purchase organic food. Such countries limited knowledge concerning the factors that influence the intention to purchase organic food. They found out that subjective norms do in fact affect the intention to purchase organic food. Moreover, Clark *et al.*, (2019) examined the social influence on green consumerism comparing between China and the United States of America. Both countries have rapid economic growth and population momentum that brought on environmental crisis with an extraordinary scale. The findings showed that Chinese consumers are susceptible to social influence with respect to purchasing behaviours. Furthermore, a study by Kumar & Polonsky, (2019) highlighted the importance of the in-store communication when it comes to positively influencing the consumers' perceptions of the organic food retailer in India.

On a general note, organic stores could make use of the situational influences among other aspects and create in-store experiences that enhance the consumers' intentions towards organic food retailers. These tactics are important for all markets, especially in emerging ones where organic food retailing is still developing. As new consumers have limited product experience and thus are rely mainly on pre-purchase perceptions and emotions. In short, combining the personal attitude (H1a) and the social influence (H1b) enriched the body of knowledge in the literature concerning the antecedents that best predict the organic food purchase as a result of pro-environmental behaviour. It could be said that, the intention to purchase organic food depends mainly on the cognitive, affective attitude and social influence towards organic food purchasing. The roles played by the attitude and the social influence in predicting behavioural intentions when it comes to organic food purchasing within the pro-environmental context are confirmed.

5.1.3. Hypothesis (H1c)

The third hypothesis (H1c) that hypothesized a positive influential relationship between anticipated guilt towards the environment and intention was proven insignificant. Statistically, the “Anticipated Guilt” construct had the highest standard deviation (1.67756) in respect to its mean (3.204), which reflects the highest level of variation compared to other constructs. Also, it has a high level of reliability (0.918) and a suitable level of validity. Statistics show that consumers did not anticipate any guilt emotions that could motivate their intention to purchase organic food. A logical explanation could be that organic food purchasing was not clearly defined as a type of pro-environmental behaviour based on the sample examined. And according to the literature, guilt and anticipation of emotions are only found significant when getting engaged in well-defined pro-environmental behavioural activities (Blankenberg & Alhusen, 2019). Furthermore, consumers usually relate certain emotions with past behaviours (Maki *et al.*, 2019). Since the organic food is considered a novel product in the Egyptian markets and since such products are not quiet attached to being pro-environmental in in nature. therefore, no emotions were anticipated and consumer relied on the available information during the situation to feel certain emotions that would affect their intentions and behavioural choices later. Consequently, those results were very much expected.

There are some reasons that were repeatedly stated in the literature in relation to guilt but were not studied within the current research that could have somehow directed the results to be insignificant. First, when consumers do not fully trust or are not fully familiar with the product, service or experience, they need other factors than guilt emotions in order to direct the intention. In the current situation, the whole organic food grocery activity is considered new in the Egyptian market. Accordingly, the anticipation of the guilt emotions seemed very far from such a normal daily activity in a sense. Moreover, various previous studies linked guilt emotions and anticipation to justifications like lack of confidence in environmental claims when it comes to organic food, misleading information and being green washed. Likewise, some assume that organic and environmental claims are public relation deeds just for the sake of promotion and boosting sales. Other believe that such claims were unreal, meaningless and are just there to comply with environmental legislations. From a food narrative, some consumers see themselves

as unable to help out the environment with the right actions and that a collective act is needed. They believe that these problems are the responsibility of high authorities, organizations and industries and they discard their liability for these environmental problems. Also, some often have self-serving denial on the seriousness of the environmental problems and deteriorations. As a result, assuming that the anticipation of guilt would influence an intention towards organic food purchasing within the current situation was not in place.

According to Elgaaied (2012), anticipated guilt was found to be triggered by situational factors. Within this research scope it was assumed that such pro-environmental store environment would have awakened the guilt emotions or its anticipation during the shopping situation. Unfortunately, this did not happen. The store's design, presentation, material used and all the environmental clues did not provoke the consumer enough to anticipate any kind of environmental guilt. Supposedly, such clues should have highlighted the link between organic food purchasing and its pro-environmental behavioural consequences from a guilt stance. In the literature, similar results were found in parallel to this study's results like Bagozzi *et al.*, (2016), Leonidou *et al.*, (2010) and Luzio and Lemke, (2013). Scholars like Persson Mörk, (2018) discussed the concept of guilt in pre-purchase situations and realized that for guilt to be activated and influence intentions is the matter of the amount of information and knowledge an individual holds of the food. Taghikhah *et al.*, (2020) applied a case study on Sydney, Australia concerning organic wine and discovered that some consumers may buy organic wine as such act provokes a guilt feeling. Chen & Moosmayer (2020) results suggested that the guilt and how it appeals does stimulate ethical behaviour in Confucian cultures. Lastly, authors like Purcărea *et al.*, (2022) examined the major shifts in sustainable consumer behaviour in Romania and guilt was realized as one factor that currently has an effect.

The anticipated guilt towards the environment is one of the variables that denoted the natural service-scape dimension. From a service-scape perspective, it was important to analyze the effect of such an internal emotion that is strictly related to the environment. This is as understanding the natural dimension of the service-scape would offer better explanations to the organic food purchase resulting from

pro-environmental behaviour. Recently, consumers started to perceive organic food differently (Tariq *et al.*, 2019). More focus is given to the convenience of the organic food shopping experience beside its sustainable returns (Aschemann-Witzel & Zielke, 2017). Still, with that being true, according to the sample studied, the anticipated guilt was not observed to ease the consumer's decision. The results shows that anticipation of guilt was not felt during the situation. As a result, the organic food purchasing intention and behaviour was not affected. This showed that the anticipation of guilt representing an element in the natural service-scape dimension did not influence the consumer's organic food decision making process from the environmental perspective.

5.2. Hypotheses (H2a, H2b, H2c and H2d)

The second section is divided into four subsections related to the hypotheses H2a, H2b, H2c and H2d answering research questions Q2A, Q2B, Q2C, Q2D and Q4C.

The first two hypotheses proved the moderation role of the self-transcendence values on the attitude/ intention relationship and the social influence/ intention relationship. On the contrary, the third hypothesis did not prove the moderation role on the anticipated guilt/ intention relationship and got rejected. The last hypothesis concerned with the moderation role that the perceived behavioural control played on the attitude/intention relationship showed significance and was considered accepted.

According to statistics, "self-transcendence values" construct has the lowest standard deviation (0.89513) which expressed a low level of variation. Moreover, it has a high level of reliability (0.805) and an adequate level of validity. Furthermore, the self-transcendence's power was mainly driven from the concern - universalism values which implied a concern for the society as a whole. Within this research context, the self-transcendence value implied that when Egyptian consumers intended to purchase organic food, it was partially out of welfare to society and indirectly benefiting the environment. From an environmental perspective, a lot of studies agreed upon such result as Jain, (2019) who expressed that universalism values were known to have a strong contribution to intentions while, the benevolence values did not considerably contribute to it. From an organic food

perspective, the majority of the studies agreed on the universalism values having the strongest impact on the organic food purchase decision (Delistavrou *et al.*, 2021).

5.2.1. Hypothesis (H2a)

Values may not affect pro-environmental behaviour directly as the road between these two variables is distracted by a long line of other variables and still the behaviour is initially stimulated by one's value orientation (Stepanova *et al.*, 2018). Hypothesis (H2a) which turned out significant, stated that having strong self-transcendence values as a consumer strengthen the influence between the attitude and the intention. The individual's self-transcendence values metabolized the attitude towards purchasing organic food into an intention. The logic behind the moderation effect of self-transcendence values resulted from stresses on three things. First, the protection of the weak and vulnerable in the society. Second, having equal rights and three, everyone is treated justly.

It could be interpreted that consumers associated the concept of purchasing organic food to offering organic farmers more wages for better life opportunities hence, taking care of the less fortunate. Also, the idea of encouraging a niche industry like the organic food one leads to better chances of competing with conventional food stores and big chains. This in turn would offer the people working in such an industry equal rights and fair treatment. Moreover, consumers link organic food to eating healthy and having a better quality of living which eventually pays back to the environment. Furthermore, some believe that supporting organic farmers, traders and retailers directly through purchasing organic food results in cleaner soil, air and water indirectly which benefits the society and the environment where we are living.

The main role played by the values was the enhancement of others and transcending one's self's interests. Regardless of the researcher's expectation for a significant universalism – nature continuum, the significance of the universalism – concern did reflect nature. The people's concern for the others in the society moved their intentions to purchase organic food. Hence, the intention affects the behaviour which helps save the planet's resources which eventually affects the natural environment. Related findings were discussed by researchers like Jalil, *et al.* (2020), Maciejewski (2020), Podobski and Haynes (2016) and Zhu, (2018). Additionally,

researcher like Lee, (2019) conducted a similar study on Korean consumers and realized that universalism values were positively related to attitudes and influenced the intentions to consume organic food. Also, he revealed a positive significant relation between the intention and the behavior regarding organic food consumption. Lastly, he found that organic food consumption significantly affected consumers' physical, psychological, and social well-being perceptions. On the other side, studies on emerging economies like India showed evidence that personal values have a significant influence on consumers intention for purchase of organic products (Sandhya & Nair, 2019)

The self-transcendence represented the natural service-scape dimension through examining how these inner deep values affected the overall experience. Hypothesis (H2a) highlighted that the consumer's cognitive and emotional attitude components positively interacted with the values. The consumer's organic food purchase attitude was catalyzed to intention under the token of protecting the weak and vulnerable in the society, giving them equal rights and treating them fairly. Accordingly, the intention to purchase organic food was seen as a means of giving back to the society and environment by saving the planet's resources. Individuals with high self-transcendence values were encouraged to purchase organic food for helping the environment and the society where they live. This hypothesis proved that consumers do put the purchase of organic food under the umbrella of pro-environmental behaviours. Where, consumers intended to purchase for reasons of concern for others which reflected an environmental essence.

5.2.2. Hypothesis (H2b)

Hypothesis (H2b) indicated a significant self-transcendence values effect on the influential relationship between the social influence and intention. Past studies claimed that the environmental protection begins from having post-materialist values which express quality of life, self-esteem and self-expression (Zhang *et al.*, 2018). Nowadays, People in modern societies are moving away from material values and towards newly emerged goals of better quality of living (O'Neill *et al.*, 2018). This is due to the new reformed and reshaped social norms pushing the society towards more care for nature. The results express how consumers were triggered by the modern social influences in the society focusing on the post materialism. As a

result, self-transcendence values successfully moderated the social influence as to influencing the intention. It is assumed that the intention was driven by inner beliefs of caring about other people in the society and living a better-quality life by being environmentally friendly.

The situational social influence was proven to be as equally important as the social norms. The logic of it is that norms got activated through the activation of the inner self-transcendence values. It is assumed that this activation took place during the store visit. The store's environment, the interactions that have occurred with different social actors (valued people and other influential ones) and the observations of others resulted in this value activation. Once values became active, they catalyzed the social influence to influence the intention. It is important to notice, self-transcendence values alone were not capable of directing intentions in a pro-environmental road. Instead, the persuasion power of the people inside the grocery store whether sales people, personnel, friends and/or other consumers did make a difference. Values should be accompanied by so called "causal recipes" during the purchase situation to direct intentions and behaviours. So, the social influence taking place during the purchase situation pressure on the same ideologies as of the societal norms.

The researcher believed that initially consumers were influenced to purchase for reasons unrelated to the environment. But, the interaction of one's self-transcendence values within the situation resulted in consumers perceiving organic food purchasing as beneficial to them and to the society where they are living. In other words, consumers expanded their array of thinking to an out of the box state. They did not only consider individual benefits, but also societal ones. Accordingly, the intention shifted to a more societal concern direction which indirectly returned on a concern for nature. As a result, the self-transcendence values were seen as a vital moderating variable.

Some examples from the literature that supported what was discussed are Moser (2016) who stated that organic food is perceived as beneficial to the individual's health, society and nature and meets consumers with high self-transcendence values. Similarly, scholars like Klockner and Blobaum, (2010), Schwartz's with his harmony dimensions (2013) and Zhou (2013). More recently,

scholars like Luomala *et al.*, (2020) provided novel empirical evidence for the ability of non-luxurious everyday consumer behaviours like organic food purchasing qualifying as prosocial status signaling. Kretschmer *et al.*, (2021) indicated that the choice to act in pro-environmental ways was driven by an internalized sense of obligation. Moreover, considering the developing countries researchers like Al-Swidi & Saleh, (2021) stated that research on sustainable purchasing behaviour has shown significant progress in the past few years. However, the bulk of research in this area is on developed countries. They studied Qatar and results unveiled that GPB is directly influenced by green attitudes, social influence and green values influence purchase behaviour.

Hypothesis (H2b) considered the natural service-scape dimension through the social influence interaction with the self-transcendence values which significantly affected the consumer's decision making. Moreover, the social influence as a construct was representing the social dimension of the service-scape as mentioned. Therefore, this hypothesis represents the aggregate influence of the social service-scape dimension with the natural dimension. From the research results, it was detected that organic food was perceived as being beneficial on the individual's level, the societal and natural levels. This was caused by the presence of self-transcendence values motivated by the concern for other people. Furthermore, organic food purchase behaviour was not only to get food products. The consumers perceived it as more of a social experience (which is parallel to the work of many like Pantano and Gandini (2018). This perception was directed by post materialism norms and the power of the social surrounding influence. The efforts exerted by the sales people, acquaintances and other people in the store were seen as a major influential force. This is because these efforts were interpreted as working on educating consumers and letting them gain valuable knowledge. It is assumed that such knowledge complemented with influential pressure from the society activated the consumer's inner values and norms. Consequently, the self-transcendence as an element of the natural service-scape dimension had a positive significant effect on the social influence which affects the intention. Accordingly, the pro-environmental spirit was most visible in the social area and moreover when complemented with strong self-transcendence values.

5.2.3. Hypothesis (H2c)

Hypothesis (H2c) showed an insignificant self-transcendence values moderation influential effect on the anticipated guilt towards the environment and intention. The results were expected by the researcher since the relationship of anticipated guilt and intention was unsupported in the first place. It was realized that anticipation of guilt did not arouse purchase intentions as consumers did not anticipate any kind of environmental guilt related to their purchase behaviour. In regards to the different reasons discussed earlier with anticipated guilt construct; it could be summed up those consumers did not link their purchasing behaviour to any environmental consequences. It is assumed that the failure to anticipate any future emotions (i.e., guilt) came as a result of the novelty of the organic food shopping experience. Moreover, due to the unavailability of any previous past behaviours, re-purchasing, habits, loyalty and/or satisfactory experiences. The results were similar to Bagozzi *et al.* (2016), Dugar and Chamola (2021), Podobsky and Haynes (2016), and Schneider *et al.* (2017). Other studies in similar developing countries like Egypt found contradicting results. As an example, Nguyen *et al.*, (2021) investigated the main antecedents of intention to purchase organic meat in the emerging market of Vietnam and included environmental guilt with the key components of the Theory of Planned Behaviour. Findings revealed that consumers who are concerned about the environment are likely to have positive intentions to purchase organic meat. Plus, it was realized that there were guilt feelings associated with purchasing conventional meat instead of organic meat.

According to the work of Baek & Yoon (2017), the expectation was that due to increasing environmental threats, the organic store design and experience and the contributing role played by self-transcendence values, that environmental guilt would have been anticipated. On the contrary, the results turned out to be disappointing and parallel to what Schwartz (2010) and more recently Mkonon and Hughes (2020). When Schwartz assessed the guilt response from almost twenty-five countries, he recognized that self-transcendence values correlated negatively due to being associated with comfort in life. In the present case, the insignificance of the self-transcendence values could have been because of them not being expressed by direct nature related items. The consumers were driven by the concern for the

welfare of the society more than nature. Consequently, their purchasing intention followed for doing well to people in the society.

The interpretation of the results shows that consumers were emotionally passive instead of being active when it came to the duty of being environmentally responsible. Egypt as a context could have contributed to the results where, in less fortunate countries, values do not impact the decision making strong enough. This is because in countries like Egypt, daily behavioural activities are mainly related to survival and security needs and constrained by the economic status (Lin & Hsu, 2013). Likewise, inherited cultural characteristics regarding avoidance of uncertainty and resistance to change supported such results. Quite the opposite, developed countries show stronger post materialist values which express greater support to the environment. Additionally, more secured economies value quality of living and show more environmental concerns and responsibility towards their communities and natural environment (Schwartz, 2010).

Discussing the hypothesis from the natural service-scape dimension, it could be said that this hypothesis in specific stressed the environmental aspect in organic food purchasing the most. Anticipated guilt towards the environment and the self-transcendence values both expressed a relation with environment. It was unfortunate that the moderation was proven insignificant which implied that the natural dimension resulting from the guilt anticipation interaction with the self-transcendence was not effective. The results shed light on an important point which is that self-transcendence values affected the consumer's decision when interacted with significant antecedents like the attitude and the social influence. In the meantime, when these values interacted with an antecedent that was not initially significant, their influential power was not sensed. This means that the individual's inner values alone could not direct intentions and needs the power of other antecedents.

5.2.4. Hypothesis (H2d)

The last hypothesis in this set (H2d) assumed a moderation role played by the perceived behavioural control construct on the attitude/intention influential relationship and turned out significant and got accepted. "The perceived behavioural control" construct has a considerable high mean of (5.127) and a standard deviation

on a high side (1.3286). Moreover, the perceived behavioural control construct like the other model's construct shows an acceptable level of adequacy. But with a Cronbach's alpha value of (0.791) it could be said that the variable is from the least reliable variables in the model. A lot of previous studies in the literature supported a strong relation between perceived behavioural control and pro-environmental behaviours (Aitken *et al.*, 2020). It was expected that this construct would play a main role in the model as it is a main pillar in the Theory of Planned Behaviour.

Since organic food purchasing is perceived as a low cost/low involvement activity, consumers believed that actions were easy and they have full control over it. Furthermore, as consumers were already in the store, the products were available and they had accessibility to environmental services. So, consumers perceived themselves as having complete control over behaving which catalyzed the influence of attitude on having positive intention. In a sense, it was interpreted that consumers did not perceive any kind of behavioural controls on organic food purchasing as they were in the store already. On the contrary, the researcher believed that if the behaviour under investigation was in the expensive product category. Then, results would have been different.

A logical explanation to the effect of the perceived control could be that the grocery store offered a variety of organic products, services and facilities which like cancelled the effect of control in the consumer's mind. Also, the specific design, display, packaging and technologies that were targeted towards sustainability helped consumers appreciate the environmental features and feel the easiness of the decision making during the organic food purchase situation. In this specific case, the whole experience of the perceived control perspective was seen differently. The store concept is the first of its kind where, the owners tried offering a new experience to people from a sustainable point of view. It is assumed that due to the uniqueness and novelty of the shopping experience to the consumers, they were able to justify to themselves the easiness of the decision due to the excitement and other valuable gains. These reasons and justifications go in accordance with past research studies like that of Moser (2016), and Podobsky and Haynes (2016).

As previously mentioned, attitude is considered the most powerful predicting variable. Accordingly, if pro-environmental attitudes were accompanied with a

perceived sense of easiness. Then, the results would be strong intentions to purchase. This is true with the current situation of the research. Besides, in ambiguous situations like this one, consumers usually use other people's behaviour in the same situation to decide on their own behaviour as stated before. Observing people's behaviour affects one's own perception to whether the behaviour is easy or difficult (Brick *et al.*, 2017). Relating this to the effect of the social influence on the intention, it would be clear that consumers felt in total control as other social actors in the store. In other words, positive attitudes and strong social influences contributed to a stronger sense of ability and so strong intention to purchase organic food. Furthermore, the self-transcendence values interaction could have participated in the results. As in the consumer felt internally and extrinsically capable of purchasing organic food resulting from a pro-environmental spirit. This is due to the external elements of store's environment and the internal state of personal values and the role played by the perceived behavioral control in denoting the consumers' ability to manage the environment through their purchasing behaviour.

Perceived behavioural control has different effects on different pro-environmental behaviours across different socio-demographic characteristics (Morren & Grinstein, 2016). From a socio-demographic point of view, up to two third of the sample were youth aged 25 to 44. Accordingly, this helped explaining the significance of the perceived behavioural control as younger generations are assumed to have higher levels of perceived behavioural control than older ones when it comes to purchasing organic food (Yadav & Pathak, 2016). Furthermore, the significant results of this construct in the study highlighted a new insight that contradicted studies that stated that people feel more empowered and in control in developed countries than in the developing ones (Schäufele & Hamm, 2017).

From an integrated view, a significant environmental attitude towards organic food purchase implied that consumers were environmentally moved because of feeling certain pro-environmental emotions. Moreover, a significant influence exerted by social norms and from focal people within the purchase situation highlighted that the consumers' organic food purchase behaviour is directed according to such contextual controls. Furthermore, a moderation role played by self-transcendence values on the attitude and the social influence underlined that

these interactions were the reason behind moving the intention towards a value-based environmental direction based on a concern for the society. Nevertheless, a perceived sense of control over the environment made consumers feel capable of protecting their environment through behavioural actions. As a result of combining all of these elements together, the intention towards the purchase of organic food was environmentally driven.

5.3. Hypotheses (H3a and H3b)

The third section is divided into two subsections related to the hypotheses H3a and H3b answering the following research questions Q3A and Q3B.

In this study, it was confirmed that the relationship between the intention and organic food purchase behaviour is of significance and is considered accepted. On the other hand, the second hypothesis was not accepted.

Intention to purchase organic food construct has a high mean of (5.218) and a high standard deviation of (1.35564). The intention has a Cronbach's alpha of (0.917), which shows that the variable is reliable and with a good level of validity. Based on the statistics, the intention was driven towards pro-environment behaviour. As a consequence, the intention to purchase organic food turned out to be directed by the intention to behave pro-environmentally.

5.3.1. Hypothesis (H3a)

Considering hypothesis (H3a), there was a significant relationship between the intention and purchasing organic food. This influential relation was expected but the interesting part was the strong essence of the pro-environmental aspect in the intention to purchase organic food. In the current situation, Justifying the significance of the results could be of many reasons that were stated in previous studies in the literature and not included in this study's model. This is as it was observed that the term "organic" was perceived differently by different consumers inside the store. Examples are like: Chekima *et al.* (2017) who stated that health was a strong predictor of organic food purchase. Pham *et al.*, (2019) who argued that organic food was purchased for reasons of quality, freshness, authenticity and taste. Massey *et al.* (2018) who claimed that organic food was being purchased because it contains rich nutritional values. Being appearance conscious, modernized and

wanting to eat healthy were among the reasons that were identified for purchasing organic food according to Rana and Paul (2020). Most importantly, the findings did confirm that consumers had pro-environmental intentions when deciding on purchasing organic food. Such findings go in accordance with Janssen, (2018), who stated that environmental benefits and protection were considered as reasons behind purchase of organic food. Other similar results were previously confirmed by various scholars whether in developed nations or in emerging ones like, Bagher *et al.*, (2018); Chekima *et al.*, (2019); de Morais Watanabe, (2020); Fleşeriu *et al.*, (2020); Lian & Yoong, (2019); Kushwah *et al.*, (2019); Mohammed, (2020).

Until recent, the literature agreed that the effect of egoistic elements on the purchase decision was stronger than the effect of the environmental aspects (Prakash *et al.*, 2019). Furthermore, previous studies illustrated that these pro-environmental attributes just add value to the overall purchase decision process. Such attributes do not initiate organic purchasing but rather give a good feel to the action as claimed by Moser (2016). In this research case, the scenario was different since the results proved that the environmental elements within the model variables did lead to a pro-environmental intention for purchasing organic food. The researcher believed that the environmental element in the attitude construct plus the environmental nature of the self-transcendence values and its interaction with the attitude and the social influence constructs did strengthen the pro-environmental feel and resulted in an intention with a pro-environmental essence. Based on that, the intention was successfully translated to a purchase (with the moderation of store's atmospherics as will be discussed) and the hypothesis was positively proven.

5.3.2. Hypothesis (H3d)

(H3b) initial assumption was that intention to purchase organic food was related to behaving in a pro-environmental manner since the intention was environmental in nature. The hypothesis aim was to examine the direct influence of the intention on behaving pro-environmentally. Despite, the presence of the pro-environmental essence in the intention, the hypothesis was insignificant and not supported.

Interpretation for the insignificant direct influence may have been the result of whole organic food store experience being a first of its kind for the Egyptian

consumers. It was an initial encounter with an all-organic food store for most of the consumers. Accordingly, it was assumed that it was hard for them to convert such unfamiliar concept and abstract industry to a pro-environmental behaviour which is also not well-known to Egyptians. Furthermore, evaluating organic food to connect it to the environment was hard because of a gap between the objective and subjective evaluations (Moser, 2016). According to Fiori *et al.* (2019), it is hard to assess organic food in an unbiased way while major environmental problems are comprehended as requiring global and societal solutions and not individual behaviours. This is applicable in the current study as private-sphere behaviours are considered to have small environmental impact unlike the public-sphere ones that have direct environmental impact (Mi *et al.*, 2020). Moreover, the confusion about understanding the organic concept and assessing organic food backed up the unclear status of what constituted pro-environmental behaviour could have also contributed to insignificance findings. In addition, pro-environmental behaviours are most effective when having a spill-over effect. As in consumers who were previously experienced pro-environmental behaving were of greater chance to act with similar manners in different scenarios (Verfuert & Gregory-Smith, 2018). Consequently, in the case of the Egyptian market, there were not much visible other pro-environmental behaviours to encourage and connect organic food purchase behaviour with. The availability of organic products and most recently stores is considered the only noticeable pro-environmental activity available to Egyptian consumers at the moment.

The researcher believes that for consumers to perceive and recognize all information associated with such a concept whether environmental or non-environmental, more time, visits and efforts are needed. As the process of connecting the organic food purchase behaviour to its environmental consequences is not a simple one. In the current study, it could be touched that the low environmental awareness and lack of the right knowledge and limited information regarding the environmental consequences accompanying organic food resulted in unsuccessful connection of daily routine activities like organic food purchasing with the environment. Hence, until present, such connection will just be a sheer fantasy.

These interpretations were parallel to ones in the literature like Liu and Niyongira (2017), Maki *et al.*, (2019), Zhu (2018). On the contrary, authors as Alshurideh *et al.*, (2019) studied the same variables in an emerging market. They discovered that Jordanian consumers' behavioural intention and perceived behavioural control directly influence pro-environmental behaviour. Other that assessed the same variables in more developed context like Joseph, (2019) realized that indeed intentions lead to pro-environmental behaviour. Apart from worldwide rising awareness on environmental issues when it comes to consumption behaviours (Ogiemwonyi *et al.*, 2020). It could be summed up those consumers purchased organic food but not from a direct environmental aspect. The environmental aspects did play a role during the purchase situation but not a decisive role to be called a pro-environmental behaviour. The environmental spirit could have been the result of the store's environmental settings which is discussed next.

5.4. Hypotheses (H3c and H3d)

The fourth section is divided into two subsections related to hypotheses H3c and H3d answering the research questions Q3C, Q3D and Q4D.

Both hypotheses in this study got accepted. Within this research context, the atmospherics results are of great interest especially that they are interpreted from the physical dimension of the service-scape phenomena which will be benefiting the organic literature and the pro-environmental consumer behaviour literature. The findings highlighted the importance of the situational environment during purchase decision making. The store's atmospherics within this research scope merged organic food purchase behaviour with the pro-environmental behaviour since all the aspects examined were environmentally related. The "Store's atmospherics" construct consisted of four (after deleting the store's lighting and background music) strongly loaded items with the highest mean of (5.685). It was observed that the presentation of the visual merchandise had the strongest influence within the construct. But, the variable as a whole showed an adequate level of reliable and validity giving a good edge to the results.

5.4.1. Hypothesis (H3c)

(H3c) assumed a moderation effect from the store's atmospherics on the influential relationship between intention and organic food purchase and turned out

positive. Initially, the researcher wanted to develop a conceptual model integrating the inner self factors and the outer environmental factors. Accordingly, the store's atmospherics balanced the tradeoff between intra-personal factors under investigation like the attitudes, social norms, anticipated guilt, values and perceived behavioural control with contextual factors assessed such as the social influence. The results gained from surveying the Egyptian market were not far from experiences shown in literature concerning the store's atmospherics within the organic food and pro-environmental behaviour domain. According to this research study, visual merchandise was the strongest element in the atmospherics. This was logical as the way food products were displayed and available in the store were totally new and different to consumers than normal supermarkets. Going back to the literature, easy availability and visibility were confirmed to be the main moderators of organic food purchasing (Kushwah *et al.*, 2019). Considering the organic food domain, reported findings agreed with such positive results. Contextual factors explained choices of purchase. Examples are like Pellegrini and Farinello (2009) to more recent like Grimmer *et al.* (2016) and currently like Seo, (2020). Such atmospherics minimized the gap existing between intention and the purchase of organic food.

In this research, Fresh N Fresh the all-organic grocery store helped a lot in highlighting the important impact of such situational clues. The grocery store had a very unique presentation of food and used environmentally friendly packaging that were different than packaging used in other supermarkets. The presentation is assumed to have aroused all the senses of the consumer by giving him/her a feel through seeing, touching and smelling the food products. The environmentally friendly packages included a print with all the nutritional values and green labels that ensured taste, quality, freshness, nutritional values and environmental benefits. As a consequence, all these factors motivated consumers to purchase organic food with the reassurance of the environmental aspect. So, the purchase decision was to be done a little easily.

The store's design, layout and colours were from the other factors that were of importance. A positive situational context influence intentions into purchase behaviour. As per the unique environmental setting of the store, it was found out that

such pro-environmental natural clues and layout helped in translating the intentions to behaviour. The design of Fresh N Fresh stores is nothing like the normal grocery store one would find in Egypt. First, all the materials used are nature inspired. Second, all of the colours used in the store are earthy colours. Third, the layout is spacious with greenery all over the place. Fourth, the lighting within the store works like a normal day outside (bright in the mornings and gets darker by night time). Fifth, the store smells like an outdoor park and the background music are made out of sounds from nature and so forth. All these efforts were done in hopes that consumers would feel like he/she were walking in an open land and hence connect with the outer globe. Accordingly, all elements (apart from the background music and the lighting) interacted together to influence the consumer's purchase decision in a pro-environmental direction.

According to literature, consumer's preferences change according to the environmental settings. According to past studies, the physical layout of the purchase environment was proven to support the purchase decision. Furthermore, the retail design did backup purchasing organic food as a pro-environmental behaviour (Grimmer *et al.*, 2016). It was realized that the situational designs and layouts do have an effect on the intention-behaviour gap (Kollarova, 2020). Furthermore, it was also discovered that the store social appeal influences preferences and hence purchase decisions (Testa *et al.*, 2018) and this research confirmed these results. Moreover, the assessed elements saw support from the literature. It was realized that organic food purchasing with a pro-environmental flavor happened best in specialized stores and farmer's markets and avoided in mainstream retailers (Islam & Manaloor, 2017). Furthermore, it was elaborated that consumers were influenced by places that make them feel more comfortable and are seen as trustworthy, genuine and friendly (Kumar & Polonsky, 2019). Generally, consumers are very selective when choosing organic food. Specifically, in this case the store's atmospherics as a whole screamed out environment. So, it is like the store not only offered food but instead a bundle of values in a favorable atmosphere that ended up to be an enjoyable shopping experience.

From a service-scape perspective, the store's atmospherics represented a vital dimension showing how the physical service-scape affected the consumer's

shopping decision making. According to Lindberg (2017), consumers get influenced by external stimuli more than they get influenced by internal stimuli. More specifically, they get affected by the emotions attributed to a store more than the effect from the emotions attributed to his/her internal self. Considering this research study, the store's atmospherics were the most visible element that consumers were exposed to during their store visit. Such characteristics helped them in forming a store's impression and affected their purchase decision and hence their whole experience on cognitive and emotional aspects. This service-scape dimension highlighted the direct environmental interaction during the store's encounter because of the specific and unique environmental settings with the design-scape and the ambient conditions.

The results of (H3c) proved the moderation of the store's atmospherics on the intention and the purchasing of organic food. The store's atmospherics as a service-scape element was interpreted as influencing all the consumer's touch points and so had an effect on the consumer's decision. It is perceived as once the consumer walked in the store, he/she got intellectually challenged by the amount of information displayed on the merchandise which affected the cognitive status. Then, they were sensory and affectively aroused by touching, feeling and smelling the organic food and perceiving its freshness and quality. Also, he/she got emotionally, socially and physically at ease due to the number of social interactions that occurred during the grocery shopping time. Consequently, the atmospherics settings proved that the physical dimension was successful to stimulate the consumer's curiosity and led to more store exploration which eventually resulted in positive outcomes. These research findings and results were parallel to many in the literature like Mohan *et al.* (2012) and more recently Childs *et al.* (2020). For example, Nguyen *et al.*, (2019) findings suggested that Vietnamese consumers' concerns regarding the environment significantly impacted their attitude towards the purchase behaviour of organic meat. Interestingly, their positive attitude did not translate into actual purchase. Instead, the food stores' green practices and environment significantly enhanced the consumers' actual purchase behaviour. Moreover, Demoulin & Willems, (2019) studied the physical service-scape in more developed low-involvement settings markets and apprehended that they matter to behaviours mainly in hedonic contexts.

It was recognized that environmental settings do change the individual preferences when it comes to food choices (Vermeir *et al.*, 2020). In this research case, it is assumed that the more time spent by consumers within the store, the more the interactions and encounters with the different service-scape dimensions. In this research case, the store management dealt with the organic food purchasing activity as a service. Attention was not only given to the food product itself, but more attention was targeted towards the purchasing environment. They aimed at offering a valuable experience within an enjoyable motivating atmosphere that would satisfy the consumer's functional and emotional needs and wants. Therefore, the organic food purchase activity in this case was seen as a service exchange and not just a product exchange to a premium price.

From a demographic perspective, it was realized that the sample was made out of up to 75% married educated women. Women were proved to be more responsible for buying and preparing food based on the work of Liu *et al.* (2014). Moreover, women were confirmed to place more weight on healthy dietary lifestyles, nutritional food content and appearances. Correspondingly, they tried to purchase more notorious food, avoid fat as to have the right healthy looks. This goes in accordance with studies like Farragher *et al.* (2016) and Tam *et al.* (2017). They stated that educated women were reported to purchase healthier food as they get more attentive to health issues, food safety and appearance as their main goals. To sum up, the demographic segmentation of the sample in relation to the effect of the store's atmospherics did contribute to the significance of the store's atmospherics moderation influence.

5.4.2. Hypothesis (H3d)

Hypothesis (H3d) examined the moderation role played by the store's atmospherics on the intention and the pro-environmental behaviour influential relationship. The initial findings showed a non-significant direct relationship between intention and pro-environmental behaviour. Yet, a significant relationship based on the moderation effect that occurred due to the interaction of the store's atmospherics with the intention from a pro-environmental perspective. The conversion of the insignificant direct relation of the intention/pro-environmental

behaviour to significant indirect one because of the store's atmospherics was surprising to the researcher.

As previously discussed, the organic industry has only started to awake recently in developing countries and so the idea of linking it to the environment was not universal among the Egyptian population. Also, it seemed from the sample investigated that it is believed that no individual effort could have been effective enough to save the planet. Besides, there were no other pro-environmental activities available to support the cause (environmental protection). Furthermore, a challenging macro-economic situation in Egypt has occurred with the Egyptian pound has depreciated dramatically after the free exchange rate in 2016. In addition to the high inflation rate and the premium price of organic food (taking into account that Egypt is a net importing country) explains why in today's business world, especially in the food industry, consumers put more attention on the product's total value proposition when behaving more than on only the environmental considerations.

According to the result findings, the store's atmospherics were seen to have a changing influential effect. The interaction between the intention and the atmospherics did lead to a significant relationship. The interpretations could be that the environmental clues in the store strongly interacted with the intention that had a strong environmental motive. Along with the interaction of the store's atmospherics with the intention that resulted in the purchase of organic food. Consequently, this powerful interaction succeeded in highlighting the impact of the store's atmospherics which signified the relationship between the intention and the pro-environmental behaviour. Additionally, the interaction affected the consumer's awareness towards the environment. In a sense, it could be said that consumers did feel and think environmentally during their encounter with the store. So that, when the consumers were in the grocery and intended to purchase organic food, the purchase behaviour was partially due to behaving in a pro-environmental manner.

The unique one-of-a-kind store design framed the natural environment in the consumer's mind while spending time in the grocery. Accordingly, the contextual factors directed the intention to purchase organic food into a pro-environmental behaviour way. Moreover, the atmospherics made consumers perceive the organic

grocery store concept and perceive it as a confident place to purchase safe food with high quality and in the same time not harm the environment. Furthermore, with the help and integration of the other situational social influences, consumers spent less effort searching for product's information. So, it is assumed that they felt more confident and comfortable with the act of purchasing organic food with a pro-environmental sense. These results were very much in contrast with findings of other studies like Liu and Niyongira (2017), and Loebnitz and Aschemann-Witzel (2016). Furthermore, Nair *et al.*, (2022) studied the service-scape through visually impressive interiors and confirmed that such elements differentiate one from another and could generate certain perceptions that lead to positive business outcomes. Also, authors as Figueiredo *et al.*, (2021) have looked at cultural differences in service-scape contexts and realized that different dimensions act as a playground for consumers encounters creating meanings through different appeals which facilitate engagement and recognition. Such findings contribute to the service-scape retailing literature and provide guidelines for interested parties to create strategies for attracting and communicating with consumers.

The presence of the store atmospherics and their interactions indicated that consumers interpreted organic food purchasing from a process related (environmental impact) perspective rather than just a product related (quality) perspective. Where, the store's atmospherics interaction with the intention created a significant relation that was not directly significant in the first place. Looking at hypothesis (H3d) from a physical service-scape dimension, the interaction of the store's atmospherics highlighted the environmental presence during the consumer's shopping decision making. All the atmospherics shouted out environment and created an environmental identity to the store. This identity wakened up the environmental essence within the consumer (along all the other variables in the model) and directed his/her pro-environmental intention in a pro-environmental behaviour way. Likewise, the store's atmospherics as a service-scape dimension contributed in getting consumers more aware about the meaning of the place and the message it is trying to spread. As a result, the purchase behaviour became clearer and its consequences were more comprehensible. As a consequence, the findings presents the consumer's interpretation of the whole experience like a story telling that is understood differently according to one's personal experiences.

The researcher believed that the environmental nature of the store's atmospherics flourished making the store environment more attractive which inspired consumers to behave pro-environmentally even if environmental protection was not their initial or main driver. It is assumed that the store's design and other contextual elements provided consumers with unique experiences that were seen equivalent in value to the premium price of organic food they paid for. Similarly, it is interpreted that as the grocery store looked like a specialized local store in a farmers' market where, consumers experienced the environment and somehow perceived its protection as a consequence to their organic food purchase behaviour as they interacted more during their time in the store. Therefore, the store's atmospherics were seen essential to moving the intention in a pro-environmental behaviour way. Lastly, the service-scape dimensions should be controlled and manipulated for a better creation of consumer's experiences. This is done through developing customized consumer's stories and subjective valued atmospheres. Thus, applying the service-scape phenomenon in the organic grocery domain is a main part of this research's contribution.

5.4.3. Hypotheses (H3e)

The last section was related to the hypotheses H3e answering the research questions Q3E and Q4E.

The last hypothesis (H3e) hypothesized a positive influential relationship between pro-environmental behaving and purchasing organic food which was proven significant and made the hypothesis accepted. This hypothesis mainly highlighted the focus of the research study, by putting emphasis on the direct effect of the organic food purchase and its pro-environmental dimension. According to the results, the "pro-environmental behaviour" construct has a mean of (4.303) and the "organic food purchase" construct has the lowest mean of (2.658). Also, the pro-environmental behaviour variable was among the least reliable variables in the research model. The "pro-environmental behaviour" construct was measured with four items strongly related to recycling, reusing and communicating environmental issues and problems. Comparing with the literature, it could be noticed that well educated women were generally more aware and communicated environmental issues more than men (Sanchez-Sabate & Sabaté, 2019) and the sample was mainly

educated women. Furthermore, recycling and re-usage were the most visible environmental activities limitedly present in the Egyptian market at the moment according to Mostafa, (2020), which explains the significance of the items in the construct. The “Organic food purchase” construct was measured according to the most six common characteristics from past literature studies (Chen & Chai, 2010; Chen & Chang, 2012; Di Pietro *et al.*, 2013; Hu *et al.*, 2010; Lindberg & Steg, 2007; Luzio & Lemke, 2013; Moser, 2016; Suki, 2013; Zhou, 2013). Furthermore, all the six items had adequate significance level. This implied that consumers did consider the availability, price, information; trust in label, benefits and quality during purchase of organic food which agreed with past studies like Liu and Niyongira (2017).

The results showed that organic food purchasing was resulting from pro-environmental behaviour even if not completely. This could be to a great extent attributed to the external environmental stimuli that the consumers were exposed to during the purchase situation. First, the consumer’s preference for purchasing organic food in specialized stores. Second, the contextual variables of products availability/accessibility, the food presentation and the ambient factors did aid the purchase decision in terms of food choices from a pro-environmental point of view. Third, the unique friendly environment that was behind the connection of consumers in the stories and messages the store communicated. As a result of all of these elements combined contributed to the purchase being related to the environment in a sense. Such results were backed up in the literature by research like of Biswas *et al.* (2019) who argued that being relaxed in the place of purchase does affect food choices. On the contrary, the researcher believed that if the study was conducted in a mainstream supermarket that offered organic food, the food choice was not going to take place as a result of any environmental considerations and only out of convenience. The assumption was because consumers were not going to get influenced the same way they got in Fresh N Fresh.

Another point that could have contributed to the organic food purchase being a result of pro-environmental behaviour was the multiple variables that interchangeably influenced the purchase decision situation. On one hand, there were intra-personal variables (i.e., the self-transcendence personal values) serving one’s

own interest which was out of concern for society and hence environment. On the other hand, there were societal norms and social influence (the societal pressure) that worked towards adopting post-materialistic norms. Plus, positive environmental attitude that led to positive intention to purchase organic food with an environmental essence that interacted with environmental atmospherics resulting in fruitful organic food purchase decisions. All this affected organic food purchase in consideration of pro-environmental behaving. In fact, it is seen as all the different stimuli acted in harmony to relate organic food purchase to pro-environmental behaviour. From a socio-demographic viewpoint, the sample questioned consisted mainly of a young to middle age group (between 25-44 years), which according to Morrison & Beer (2017) are usually more environmentally aware, read and perceive the product labels very well. Therefore, such characteristic could have contributed to the purchase of organic food as a result of behaving in a pro-environmental manner.

Many studies explored the organic food purchase and its linkage to pro-environmental behaviours. Mainly researches were concerned with developed nations as compared to the amount of research on developing ones. Examples are like Faletar *et al.*, (2021) that examined the organic vegetables purchase and concluded that the purchasing behaviour of organic vegetables was a form of pro-environmental behaviour. Also, Laureti & Benedetti, (2018) found out that Italian consumers do buy organic products as directed by their environmental concerns as an act towards saving the environment. Similarly, Saraiva *et al.*, (2021) argued that consumers look for organic food within their local context as alternative pathway towards the transferring the environmental responsibility into collective action through the purchase of organic products as means of protecting the ecology. Such researches results and findings provide a better understanding on the establishment of a connection between organic food and its purchasing and the environment and its protection through pro-environmental behaving.

Now a days, more people are considering merging the environmental aspects within their lifestyles and change their behaviours to more environmental ones (Kumar *et al.*, 2021). Comparing this to past studies in the literature, it was realized that organic food purchasing was associated with consuming a better-quality diet (Farragher *et al.*, 2016). Consequently, organic food market has grown from being a

niche market in a few developed countries, to being a billion dollars industry in the global market (Bazaluk *et al.*, 2020; Willer & Lernoud, 2017). From another angle, organic food purchasing has become one of the most popular pro-environmental activities lately (Laureti & Benedetti, 2018). As a result, there is a strong interest in the organic industry when it comes to pro-environmental behavioural activities. Furthermore, this highlights the research importance as such rapid development in the organic markets; need an adequate pace with developments in theoretical foundation. As until present, the literature on organic food have been unable to keep such pace and lack strong theoretical foundations due to mixed and inconclusive results mainly related to purchase motivations and patterns (Mai *et al.*, 2021).

The hypothesis represented the significant influence of the pro-environmental behaviour as an element of the natural service-scape dimension on the organic food purchase activity. It highlighted the effect of the environmental essence and assessed the direct influence on the organic food purchase. The findings supported the role of the natural dimension in directing the organic food purchasing from a pro-environmental behavioural perspective. It is interpreted that the results were based on the harmony between the pro-environmental attitudes in collaboration with self-transcendence values resulting in an intention to behave pro-environmentally. Furthermore, the interaction of the social and physical service-scape dimensions with the natural one that affected the consumer's decision. All the elements together reflected the strong role of the natural dimension in enhancing the environmental aspect in the purchasing decision making process.

It is recognized that the organic food purchasing resulting from the pro-environmental behaving was not merely the result of the natural service-scape dimension alone. But, rather the combined effect of the natural, social and physical dimension all together. It was the result of the integration of multiple internal and external factors that interacted in a supporting pro-environmental atmospheric context. First, consumers had positive attitudes with a strong base of self-transcendence values. Second, they were socially influenced to behave in the way their society expected them to. Third, they had some degree of perceived behavioural control. Fourth, they had an intention to act pro-environmentally by purchasing organic food. Fifth, they were physically influenced to act in a pro-

environmental manner because of the environmental clues in the store's atmospherics.

It is usually said that there is a light at the end of the tunnel. But in this case, this proven effect is considered the light at the beginning of the tunnel. As the idea of organic food being a pro-environmental behavioural activity is not yet universal and is just being introduced in the Egyptian market as a developing country. Accordingly, for this study to achieve a direct link between organic food purchase and pro-environmental behaviour variables is considered as a big initial step. It could be said that the research findings did frame the idea that organic food purchasing could be the result of behaving pro-environmentally. More precisely, that such micro level behaviour does protect the environment and that in itself is an evolution to the organic food industry and the environmental status in the Middle East.

The environmental sustainability and food sustainability are marked as from the main objectives to achieve before the turn of the century in the United Nations and the UK's policy agenda (Yadav & Pathak, 2016). In the long run, the society will be better off if individuals acted in a pro-environmental manner especially if merged in their daily activities (Zawadzki *et al.*, 2020). Furthermore, giving up the non-environmental lifestyles and leaning towards more environmentally friendly ones will beneficially impact the life of present individual and make a habitable planet for the coming generations and the global environment (Safi & Hassen, 2021). Accordingly, this research is a stepping stone to motivate pro-environmental behaviours and sustainable lifestyles by assessing new perspectives of consumer behaviour within the organic food context and pro-environmental domain.

The organic purchase adaption behaviour is taking off slowly in developing countries despite consumers holding pro-environmental values, attitudes and intentions (Rezvani *et al.*, 2017; Sadiq *et al.*, 2020). Consequently, marketers are trying to sell the idea that "you are what you eat" that impacts the purchase of organic food in a positive environmental way. This is because; such perception corresponds with the idea that every individual is considered as making a difference towards the environment. Therefore, communicating targeted messages are in hopes of motivating a wider audience to do some simple pro-environmental behavioural

changes. Lastly, the environmental protection is a moral responsibility of both individuals and society as a whole all under the umbrella of environmental ethics (Zhang *et al.*, 2020). Pro-environmental consumer behaviour is on the rise and so scholars with the help of governments, environmental groups and other interested parties around the world are trying to better understand this behaviour to be able to better manage, control and direct it in a sustainable way.

5.5. Summary

This chapter discussed the study findings. It demonstrated how the hypotheses results have achieved the research objectives. A quick recap for the main results findings, the attitude and social influence towards organic food purchasing were considered the main directing forces that affected the intention to purchase organic food. Moreover, the self-transcendence values validated by the universalism concern for others and a sense of perceived behavioural control acted as moderators on the intention to purchase organic food. The interesting outcome was a pro-environmental intention that had further interacted with the store's atmospherics which had an environmental nature and led to the organic food purchase behaviour. Not only this, but also these interactions strengthened the environmental spirit and resulted in a significant indirect intention influence to act in a pro-environmental behavioural manner. Finally, all the significant variables led to a significant direct influence from the pro-environmental behaviour on the organic food purchase which represents the purpose of the thesis from the start.

The proposed framework highlighted the importance of each variable independently and the strength of all the variables integrated through their aggregate effect on the purchase of organic food as a result of pro-environmental behaviour. Extending the Theory of Planned Behaviour by adding relevant variables to the scope of the research had resulted in a more holistic view of the organic food purchasing behaviour from the pro-environmental standpoint. Last but not least, the research core lied in testing the service-scape different dimensions in addition to how these dimensions affected the consumer's organic food purchase decision separately and jointly. It was realized that all three dimensions of the service-scape had strong effects which influenced the organic food purchase decision and directed it in to a pro-environmental direction.

It seemed that despite it was proven that purchasing organic food was a result of behaving pro-environmentally, still, the idea of such an individual behaviour being a contributor to saving the environment from deterioration is not properly implemented in the minds of many consumers in the Egyptian market. This challenging ideology needs much more academic and practical work. The following and final chapter which is the conclusion of the thesis highlights some important strategic implications that would benefit various stakeholders. Moreover, the researcher will state the research contributions to theory, knowledge and practice in comparison to the intended one presented in the introduction chapter. Furthermore, the chapter ends with the main research limitations that were faced by the researcher. Finally, some further research points will be discussed as means of improving the research area of interest in the future.

6. Conclusion

In the final chapter of this thesis, all the research interpretations, insights and contributions are discussed in coherence with the research's initial aim, importance and intended contribution presented in the first chapter. Moreover, this chapter concludes the researcher's work in efforts to emphasizing the importance of the topic under research academically and practically. Furthermore, the chapter summarizes the research objectives shedding light on important strategic implications that make this study not only academically beneficial but also of importance to many organic food stakeholders and pro-environmental enthusiasts. The chapter starts off by stating the purpose of the research study and what it aimed for. Then, the chapter summarizes the findings according to the different objectives. Later, the different contributions are stated according to knowledge, theory and practice which lead to the strategic implications. Lastly, the researcher's highlights some points that were considered of interest as future research. Also, some points that were seen as limitations for the current research study as an ending for the chapter and the thesis as a whole.

6.1. Research Purpose and Aim

This research is of importance as it investigates a daily human behaviour that has an impact on environmental sustainability. The idea behind the study is linking the consumer organic food purchasing behaviour to the concept of environmental protection through pro-environmental behaviour. The researcher wanted to identify the antecedents that best predict the purchase of organic food as a result of pro-environmental behaviour as an initial step to reducing environmental damages. Also, the research applied the service-scape phenomenon on the organic grocery retailing industry in efforts to understanding the purchase decision various dimensions. This is seen vital due to the complexity of the organic food purchase behaviour and its environmental consequences. The different dimensions of the service-scape illustrate the predicting power of the different variables in the model.

The research study aimed at enhancing the understanding of the consumer organic food purchase behaviour from a pro-environmental perspective within the Egyptian context. Moreover, the study intended to clarify the gap between the attitude, intention and the purchase behaviour of organic food. Furthermore, it

explained the moderation role of self-transcendence values, perceived behaviour control and store's atmospherics. Drawing on the original Theory of Planned Behaviour, many researchers suggested various models addressing organic food within environmental fields. However, most of the suggested models did not identify the antecedents that best predict organic food purchase as a result of pro-environmental behaviour. Furthermore, there is a lack in the literature of a complete model that merged the service-scape phenomenon especially in all organic food retail industry. Having compared several models and going through different theories and relevant factors helped identify the best variables to integrate in this research. As a result, the researcher was able to develop a comprehensive model of constructs that best serve the purpose of the current research.

6.2. Summary of Findings

The findings are demonstrated aligned with the four different research objectives. Reaching the research objectives resulted in finding better ways of encouraging individuals to behave in a pro-environmental manner when it comes to day-to-day activities. Likewise, incorporating the service-scape within the research model as an objective led to better exploration of the organic food purchase behaviour as a result of pro-environmental behaviour.

- Objective one “Examine how the organic food purchase behaviour can be best predicted through specific antecedents”.

The purchase behaviour was predicted through the purchase intentions and their interaction with the store's atmospherics. The attitude towards the purchase of organic food symbolized a powerful predictor of the intention. The social norms and the situational influence were equally effective on intention when it came to purchasing organic food. The anticipated environmental guilt had no effect on the intention to purchase organic food.

- Objective two “Explore the attitude-intention-behaviour relationships”.

After examining the antecedents that best predicted organic food purchasing, the attitude, intention and behaviour gaps were narrowed by further assessing the moderation roles played by the self-transcendence values and the perceived

behavioural control. The attitude was transformed directly to an intention to purchase and indirectly directed towards a concern for the society's welfare which affects the environment as a whole. The social influence directly affected the intention towards purchasing organic food and indirectly as a result of societal concern towards pro-environmental behaviour. Furthermore, the social influence's interaction with self-transcendence values succeeded in unrevealing the societal and environmental long-term benefits of purchasing organic. The self-transcendence values interactions with guilt anticipation were not effective. The perceived behavioural control ease the transition of attitude to intention and strengthened the pro-environmental essence which led to strong pro-environmental intentions.

- Objective three "Investigate organic food purchase/pro-environmental behaviour relationship".

This objective examined whether the organic food purchasing behaviour resulted from behaving in a pro-environmental manner. The results showed that the intention was pro-environmental driven and led to purchase behaviour through indirectly interacting with the store's atmospherics which were environmental in nature. such atmospherics catalysed the translation of intentions to behaviour with an environmental edge. From another standpoint, the environmental aspects in the intention alone were not strong enough to move the decision in a pro-environmental behaviour direction. Yet, with the interaction of some store's atmospherics the intentions were directed towards behaving pro-environmentally.

The findings were influenced by the external environmental stimuli (unique environmentally friendly ambient factors and the social influences) that consumers were exposed to during the purchase situation. Also, the behaviour resulted from the intra-personal factors and societal factors embedded within the consumer's mind. Together, external and internal stimuli worked in harmony and directed the organic food purchase decision from a pro-environmental behaviour edge.

- Objective four "Understand the service-scape phenomenon associated with organic food purchase within a pro-environmental context".

This objective represented the application of the service-scape phenomenon on an all-organic retail grocery store. The natural and social service-scape dimensions positively influenced the consumer's organic purchase decision from a pro-environmental behaviour perspective through being concerned with others which reflected on the environment. Moreover, the combined influential effect of the society's new post-materialism social norm and the situational interactions with the consumer's value system resulted in consumers experiencing organic food purchase decisions from a pro-environmental perspective. The physical service-scape had a major role in influencing the purchase decision from a pro-environmental behaviour perspective. The atmospherics presented nature and prospered a pro-environmental store identity that affected the purchase behaviour. Metaphorically, the shopping experience was interpreted like a story told through the store's environment and other elements. It is assumed that such story made the environmental consequences of purchasing organic get clearer and more comprehensible to consumers which encouraged them to act pro-environmentally.

To sum up, the resulted influential relationship was through integration of all the dimensions together. The aggregate influence of the environmental attitude, social influence to purchase organic food, self-transcendence values, and perceived behavioural control resulted in a strong environmental intention to purchase organic food. With the strong effect of the store's atmospherics and its interaction with the intention, an organic food purchasing behaviour that resulted from a pro-environmental behaviour standpoint was obtained.

6.3. Research Contributions

The researcher started this thesis with an intention to contribute to the theory, knowledge and practice of the fields of consumer's pro-environmental behaviour, the environment and the service-scape. From a theoretical point of view, a framework was developed based on the extension and merge of theories along integrating other variables and concepts that were seen of importance. From a knowledge base standpoint, this research wanted to add on and enhance the current body of knowledge related to the organic food as purchase behaviour under a pro-environmental umbrella. In addition, adding to a new growing service-scape knowledge base through implementing such phenomenon in an organic/pro-

environmental retail industry. From a practical perspective, this study aimed at providing a solid base for the organic and environmental stakeholders. A number of implications were offered to help understand how to direct the organic food purchase decision in the pro-environmental behaviour direction. The following section discusses all three contributions in more details.

6.3.1. Research Contribution to Theory

The research contributed to theory through providing an extension to the Theory of Planned Behaviour model by drawing upon Schwartz's Refined Value Theory (self-transcendence values), anticipated guilt, social influence and store's atmospherics. These new constructs were added to the original Theory of Planned Behaviour in response to the time to retire criticism addressed by some scholars. Furthermore, such theory extension was fruitful in offering a better explanation of the organic food purchase behaviour as resulting from pro-environmental behaviour. Accordingly, the researcher constructed and tested a conceptual model with hypothesis from a sample of Egyptian consumers (while the majority of the studies are conducted in Europe or America) that investigated organic food purchase decision in relation to behaving pro-environmentally. This framework that was developed based on adding self-transcendence values, social influence (assessing more than just social norms), anticipated guilt towards the environment and store's atmospherics led to a maximization of the overall predictive utility of the theory of planned behaviour towards the current topic under investigation.

The research merged Schwartz Theory of Refined Values presented by the self-transcendence value construct. The model revealed how self-transcendence values influenced the attitude, social influence and anticipated guilt towards the intention. Hence, it offered deeper explanations on how values and their combinations affect the purchase decision. Furthermore, as the influence and expectations of social models on the organic food purchase intention and behavior were not to be underrated, measuring the effect of all the social influences on the intention to purchase and the purchase decision strengthened the research contribution theoretically. This was done by offering more insights about the persuasive power of the social influence construct. Moreover, the anticipated guilt towards the environment was seen as a very important construct within the field of

this research. This was mainly because the research study directly assessed the environmental concerns on the intention and purchase organic food which clarified the emotional environmental reasons for purchasing organic food. Likewise, the store's atmospherics were also an important situational variable, as it measured diverse dimensions and their effect during the purchase situation. Due to the nature of the situational environment in which the behaviour took place (the all-organic grocery store), this construct resulted in interesting insights about purchasing organic food as a behaviour and whether it was a result of any pro-environmental behaviour, which was the core research question. Adding the environmental dimension to the Theory of Planned Behaviour model – given the unique attributes of the organic food – enabled the prediction of the purchase behaviour in a more precise matter.

The researcher considered Bitner's extension request and expanded the service-scape paradigm to hypothesize an array of multi-disciplinary dimensions. In efforts to understanding the phenomenon better, the research highlighted how all the diverse elements acted in harmony to comprehend the spirit of the service-scape experience. Moreover, the research extended Bitner's (1992) work and tested the effect of the concept's different dimensions (natural, social and natural) on the consumer organic food purchase decision. By doing so, the researcher inserted the missing pieces of the service-scape puzzle by applying such a service concept to an all-organic food grocery purchasing behaviour. Consequently, it enhanced the understanding of how the service-scape influenced the consumer's organic purchase from a pro-environmental point of view. Merging various service-scape dimensions with other fundamental theory variables toughened the research framework. This, in turn, reinforced the research contribution to theory through giving more strength to the predicting power of the variables in the model. In summary, this research theoretically contributed to the literature of consumer behaviour and environmental psychology through examining organic food purchase behaviour within a pro-environmental context and finding out new insights that covered the gaps that were stated in the literature. The research drew upon the Theory of Planned Behaviour and Schwartz's Refined Value Theory and constructed a conceptual model with hypotheses tested with data collected from a sample of Egyptian consumers. As a result, the model explained the attitude-intention-behaviour gap by exploring

different influences and moderation roles. First, it studied the influence of the perceived behavioural control on the attitude and intention. Second, it studied the influential role of self-transcendence values on the attitude towards organic food purchase, social influence towards organic food purchase, anticipated guilt towards the environment and the intention towards organic food purchase. Third, it studied the effect of the store's atmospherics on the intention and the organic food purchasing behaviour as a result of pro-environmental behaviour.

6.3.2. Research Contribution to Knowledge

The research contributed to the knowledge of the organic food through offering an understanding of the antecedents that best predict organic food purchase resulting from pro-environmental behaviour in the Egyptian context. The examination of multiple theories, diverse variables and different concepts and phenomena within the environmental domain when it comes to organic food resulted in an integrative framework with some interesting insights that adds on the current body of knowledge. Such knowledge helped in bringing out the field of environmental psychology when it comes to consumer behaviour research. For example, knowledge about one's self value system and how it influences behaviour was discovered. Moreover, knowledge was obtained about how social values and societal interest direct normative behaviour. Furthermore, knowledge concerning the effect of situational clues and context on an individual's behavioural decision. All this knowledge and more supports and maximize the body of knowledge currently available in benefit of the organic food domain. Accordingly, the research study provided a solid knowledge base for predicting the organic food purchase behaviour from a pro-environmental behaviour perspective with respect to the influence of attitudes, social influences, self-transcendence values, perceived behavioural control, intentions and situational atmospherics.

Another main contributor was the "service-scape" phenomenon and its application within the organic food retailing context. Integrating such a concept was an important extension to the consumer behaviour, environmental psychology and organic food domains. The service-scape natural, social and physical outcomes benefited the current situation through enriching the knowledge and providing a deeper understanding of the variables in the model within the environmental context.

As well as, discovering out new insights that would flourish the knowledge related to improving the whole consumer organic food purchase decision making. For example, realizing the importance of the social aspect and how social norms and social influence encouraged the organic food purchase decision. In addition, the interaction of the natural aspect with the social one and their influence on directing the decision in a pro-environmental path. Also, the major influential role of the physical dimension on prospering the environmental essence in the purchase decision. Therefore, the application of the service-scape multidimensions in a retail grocery store helped bring out new knowledge on how to control its elements to direct the behaviour under investigation. To sum up, the research added to the existing body of knowledge of organic food, consumer behaviour and environmental psychology by developing a framework that explored the service-scape phenomenon and its effect on the overall consumer's purchase decision. It revealed how the various service-scape dimensions along other relevant variables worked in synergy to move the purchase decision in the desired environmental direction successfully.

To conclude, the research contribution to theory and knowledge is deemed two sides of the same coin. The study combined different theories with discrete, but complementary motivations to pro-environmental behaviour to examine organic food purchase behaviour. This is as the organic future depends to a great extent on consumer's motivations more than anything else. The research demonstrated the link between organic food purchase behaviour and pro-environmental behaviour by gaining knowledge about the predication power and moderation effect of different antecedents besides understanding influence of various situational dimensions through the service-scape and the role such elements played in directing organic food purchase behaviour pro-environmentally.

6.3.3. Research Practical Contribution

Understanding the determinants of the consumer's organic food purchase behaviour is extremely important as it uncovers a part of an individuals' pro-environmental behaviour. Understanding the pro-environmental behaviour as a preliminary step to behaviour change is mainly the number one solution to environmental deterioration problems. Thus, understanding the variables that predict organic food purchasing behaviour from a pro-environmental perspective help

awaken the environmental spirit which will reflect in behaving pro-environmentally. The practical contribution of the research aided and benefited the stakeholders interested in the areas of organic food and the environment. The research findings led to the realization the purchase of organic food purchase and how the environmental factors of various antecedents influence such a behaviour. Based on the findings, the variables examined were critical in defining and developing value products and offerings, marketing mixes and strategies and pleasurable consumer's experiences that satisfy different levels of needs. The results helped educating marketers and retailers in adapting marketing strategies for successful consumer satisfactory daily experiences. In specific, understanding the influence that the social influences exert along with the store's atmospherics on the consumer's decision orientation is of importance. Moreover, the interaction of these external stimuli with internal attitudes, social norms and intentions gives a holistic view of the various aspects of the decision-making process when it comes to managing and directing consumer's behavioural actions with pro-environmental characteristics.

The research merged the literature and knowledge of pro-environmental consumer behaviour, organic food and service-scape into a novel managerial framework. This framework empirically investigated the relationship between organic food purchasing and pro-environmental behaving to reflect on a higher framework of environmental sustainability. The researcher wanted to make use of this research study in efforts of encouraging individuals in the society who have little or no interest in behaving in a pro-environmental manner to act in favor of the environment through their daily activity like purchasing organic food. The results provided important practical suggestions on the efficiency of allocating and utilizing resources. This efficiency would result in an effective segmentation, targeting and positing value offerings for consumers in efforts of not only meeting but exceeding expectations. Furthermore, the results obtained from the study result in better communication strategies with consumers that satisfy their functional benefits, emotional needs and align with their personal values that fit the societal obligations and would favor behavioural change later which benefits current and future generations.

The research study addressed the holistic organic food purchase decision making process from an environmental facet. Consequently, it stressed on the influence of the multisensory store environment, social actors and other intra-personal factors and how they affect the consumer behavioural purchase decision. Accordingly, the findings direct government officials and industry makers to develop strategies that would increase environmental knowledge and awareness in the society. Precisely, the results presented the importance of social influence when looking for information during the purchase situation and in hopes of fitting with societal norms. As a consequence, strategies should be developed to offer valuable information and knowledge coming from credible influential sources. These strategies would target educating individuals in the society to improve their attitudes and intention towards purchasing organic food and enhance their purchase behaviour in general. In specific, once the strategies succeeded in attaining favorable attitudes, intention and behaviours due to various social influences, the link of such purchase to its environmental consequences will be reinforced.

Similarly, based on the significance of various social influences targeted social campaigns and interventions should be developed highlighting the negative and positive actions towards the environment promoting positive emotions that motivates the individuals' inner value system. By doing so, ethical responsibility within the society would be framed and environmental education would be spread. All of this would help in create social pressures and thus stimulate different pro-environmental behaviours and let them be rooted in daily routine behaviours. From an organic food perspective, these efforts are done in hopes of growing the organic market shares and success within competitive markets. Likewise, based on the significant results of the influence of different atmospherics, marketers should use such factors as opportunities for promoting consumer's purchase behaviour in a targeted way and by doing so organic food would gain a competitive edge in the markets. As consumer behaviour is all about lifestyles and satisfactory happy experiences. Therefore, appealing store environments are to be controlled and manipulated to achieve win- win situations that have benefits on individual levels as well as societal levels.

To sum up, the research guided the development of effective sustainable business models and practices that helped market organic food products as paragons of environmental benefits in the consumers' eyes. It could be concluded that, the research contribution is twofold. Firstly, the results contributed to theory and knowledge by adding to the current body of literature and knowledge of organic food, consumer behaviour, environmental psychology and service-scape. Secondly, the results contributed to practice by representing new fruitful insights and recommendations to many interested stakeholders. Understanding this organic food purchasing/pro-environmental behaving relationship will make people realize the environmental consequences of their behavioural activities so that they eventually change their purchasing patterns and reach the ultimate goal of living a sustainable lifestyle which will save planet Earth.

6.4. Strategic implications and recommendations

The research results have important strategic implications and could help various organic stakeholders as governmental authorities, policy makers, organic food decision makers, environmental organizations, practitioners, resource managers, marketers, environmental campaigners, educators and activists. Such help is through efficiently utilizing different variables to effectively boost the individual's environmental awareness and encourage more engagement in pro-environmental behaviours even with simple day to day individual activities. Some of the strategies are as follows:

- Strategies are to be developed by government officials and industry makers directed towards increasing environmental knowledge and awareness in the society. Such strategies target improving the individual's attitudes and intention towards organic food purchasing. Educating the society by offering valuable information from credible sources will for sure enhance the purchase behaviour. Moreover, these strategies will make the society more aware and familiar with the different activities and behaviours that are under the umbrella of sustainability. An example for such strategic planning is working on developing popular opinion leaders and social influencers. Nowadays, these people have influential persuasion powers which would increase the levels of environmental awareness. Strategically creating "environmental market mavens" with proper

content that is shared among diverse social groups (like the creation of health mavens) would serve the targeted behaviour and save the environment.

- Policies are to be set by governmental authorities promoting the delegation of ethical responsibility within the society and influencing societal decisions. An example could be that the Ministry of Environment works with innovative marketers seeking and communicating slogans that would stick to the individual's mind and enhance his/her practice of pro-environmental behaviours that save the environment, like purchasing organic food among other activities.
- Learning educational programs are to be planned promoting environmental protection and sustainability with the help of governmental authorities and environmental institutions. A lot of people are interested in obtaining better social statues through gaining higher degrees and learning about new topics. Developing workshops, diplomas and degrees in sustainability would maximize the welfare of people and spread the environmental essence within the society. It is important to differentiate between merely infusing knowledge about environmental issues and spreading environmental education to endorse environmental education. A good example is developing social interventional workshops or campaigns using public figures, popular culture and organizational top management highlighting the dos and do not's and the negative and positive actions towards the environment. Using such figures create social pressures that stimulates organic food purchase (and other pro-environmental behaviours) and link it to the environment. Do use recycling packaging that does not harm the environment is an example of the dos and positives to the environment. Do not through plastic in the sea as it kills all living sea creatures is an example of the do nots towards the environment.
- Recently, a lot of people are shifting towards healthy nourishing food choices to build up the right mind and body and live the modernized healthy lifestyles. Furthermore, an interesting point that the researcher noticed is that food crises (such as the crisis in China) and global pandemics (such as influenza and most recently Covid-19) affect consumers' perceptions of food and accordingly their choices. On the same token, organic food is perceived as a healthier option as it contains more primary vitamins, secondary nutrients and fewer additives as compared to conventional food. As a result, marketers should make use of such points for the sake of gaining a competitive edge in the markets. There are quite

a number of opportunities for promoting the consumer's purchase behaviour in a targeted way. This is as consumer behaviour is all about lifestyles and satisfactory happy experiences. An example is organic stores breaking the ice with consumers and offering them food to try first before acknowledging the environmental protection and benefits issues. Also, these stores could make promotions and discounted competitive prices so that consumers adjust their price perceptions lessening the economic burden felt by them mainly in such hard times. Such tactics will be successful at changing people's perceptions towards organic food which would favor the environment. Furthermore, adopting more pro-environmental lifestyles impacts individuals, societies and future generations through making the global environment a better habitable planet.

- Segmented targeted interventions and messages to different consumer typologies to behave pro-environmentally through purchasing organic food are a must. Pointing out the positive environmental impact of purchasing and framing positive emotions with the individuals' inner value systems will embellish the environmental impact of daily routine behaviours. Yet, it is important to understand and handle the value proposition offered to the consumer wisely. As for an emerging market, consumers will not sacrifice or trade off the product's attributes with organic and pro-environmental attributes. Consequently, retailers should offer a satisfactory bundle of values in a tempting service-scape environment. Such value-based interventions will strengthen the environmental norms while, at the same time satisfy all other aspects in return of the price paid. The valued products offerings should be perceived as a pleasurable, fun and satisfactory experience taking place in the perfect service-scape environment which is one that is physically tempting, socially helpful and naturally pleasing. One of the examples is communicating customized messages to different consumers stressing different ideas like fairness and equality, supporting a niche market and giving fair wages to its workers, living a healthy lifestyle and strengthening your body while saving the planet. All this takes place parallel with communicating valuable other information related to the food itself. Decision makers should have a detailed database with different checkpoints of various consumer segments as to what constitutes a valuable organic food shopping experience from an environmental value consistent and non-

environmental viewpoint. This database should always be updated and used to better serve consumers and awaken their environmental spirit and values.

- Developing corporate environmental management systems and implementing rigorous laws, control, rules and regulations for organic food industries aimed at environmental protection is vital. This is to ensure quality standards and true organic labeling from accreditation bodies for effective sustainable business development. Furthermore, business models and practices should market organic products as paragons of environmental benefits in the consumer's eye so that consumers would be encouraged to adopt pro-environmental habits that can later become rooted in their daily activities and eventually change their behaviours in a pro-environmentally sustainable direction. An example would be to first benchmark with similar developing countries with common contextual backgrounds that successfully implemented environmental policies and regulations. Second, to benchmark with developed countries as they are more acquainted with environmental issues and have more concrete pro-environmental behaviours to be observed.

6.5. Strategic tactics implemented by Fresh N Fresh

The importance of the research contribution to practice comes in the light of popular catastrophic environmental pollution, food losses waste problems and global pandemics markets have and are experiencing losses environmentally, economically and socially. Consequently, more initiatives are needed to develop strategies that tackle these challenges. It is now more than ever that individuals need to be more knowledgeable and aware of their purchase behaviour and its accompanying environmental consequences. Moreover, companies need to exploit these new barriers and turn them into opportunities by adding environmental activities as part of their corporate social responsibility. Relating this to the present research, the results offer companies, like Fresh N Fresh, tips on utilizing new concepts like the service-scape to aid them in manipulating consumer touch points during their purchase experience. Moreover, these new concepts help create favorable environments that lead to positive purchase decisions, especially for an emerging industry like organic food one in Egypt. The aforementioned companies learn how to manage such a concept and use it as a marketing tool to encourage pro-environmental behaviour through purchasing organic food.

The upper management and markets behind the stores did control the store's environment in ways to improve the overall consumer experience and provide themselves with competitive advantages. The owners decided on some tactics to increase the environmental awareness like offering a booklet once entering the store detailing some major environmental problems. These booklets display how protecting the environment could be achieved by simple day to day activities like grocery shopping. Also, they put on some facts, numbers and pictures that motivate environmental behaving to remind consumers along their stay in the store about the important role they could take in saving the environment. Similarly, by the end of the shopping experience they put a machine on the way out expressing the level of happiness and asking consumers to rate their organic food purchasing behaviour. Do they feel like they helped with protecting their environment? All this was done in efforts to activating the natural and physical service-scape dimensions and making consumers feel positive with their behaviour.

From a social service-scape dimension, the salespeople were trained to present consumers with information related to benefits of organic eating especially during times where high body immunity is needed like currently. Likewise, they offered consumers with different samples of the displayed products to ensure them of good taste, quality and freshness. This makes more and more people try organic food and feel safe about purchasing it. Correspondingly, they represented consumers with the online option to maintain social distancing and minimize going to the stores. Consumers were offered vouchers and discounts over their online transactions. Lastly, environmentalists from local known organic organizations were invited over to talk to walk in consumers about the importance of purchasing organic among other pro-environmental activities. This is done for two purposes first, creating credible and familiar social figures that consumers can eventually trust and follow. Second, educating consumers and making them more knowledgeable about the different pro-environmental activities that are available within their society for hopes of spillover effects. At last, manipulating the intellectual, sensory, affective, social and physical behaviour-oriented components of consumers through the store's characteristics highlight the environmental essence associated with organic food purchasing behaviour and lead to desired outcomes. This is why discovering the service-scape different dimensions, especially the physical one, was

considered a main part of this research's contribution to theory, knowledge and practice. The above aspects were just a few practical procedures that were and are taken by a chain to take advantage of differentiation opportunities and create interesting and unique consumer purchase experiences.

6.6. Research Limitations and Future Work

The last section discusses the limitations of this research followed by the future work. The researcher starts by presenting some points of limitations that came across during the study and then illustrate some opportunities and ideas for future research that have surfaced along the way. Some limitations were seen as areas of improvement for later research while other points were considered for bringing out more rich insights to light. The researcher tried to tie the limitations with the future work when presenting them to give more logic and order to this section. Also, in such way, the organic food purchase/pro-environmental behaviour would be investigated in a deeper sense. Lastly, the thesis ends with a conclusion revisiting the research aims, questions and the processes followed. Besides, highlighting how the aims were met through the findings revealed and suggesting recommendations in order to fill in the gap in knowledge and answer the research questions. The study was subject to the following limitations and can take opportunities in the following areas for future research.

As organic food was recently introduced to the market in Egypt, the study followed a convenient sampling approach for reasons of accessibility. Such a technique limits the representation of entire populations. Moreover, the results of convenience samples are hard to replicate. Furthermore, the sample response rate was initially lower than expected which was assumed to affect the sample size. This was attributed to people not wanting to participate, people not having time and people finding it vague. The number of consumers that filled correct usable questionnaires was less than expected at first. Accordingly, the researcher had adopted some tactics (discussed in chapter 5) as to be able to collect more reliable questionnaires. This resulted in 403 valid returned questionnaires. Also, the study only covered Cairo and Alexandria as the urban cities of Egypt. Modernized cities may differ in ideas, rituals and behaviours from other un-urban cities and

countryside areas inside Egypt. This, in turn, may limit the research outcomes a little.

Further research is needed to have even more reliable research results by overcoming the points stated above. Other sampling techniques could be used focusing on more generalization of the results. Likewise, other research could investigate the reproducibility of the research findings as well as manipulating some of the model's variables and their relationships. Moreover, more techniques could be implemented as a way to increase the response rate. Having a larger sample size would be parallel with the dramatic growth in the organic product markets in general and food in specific. Furthermore, the research could be administered again in different countries, cities, cultures and store types (like farmer markets not grocery stores) so as to have more diversified samples of organic food purchase behaviour within the pro-environmental context. These samples could be used later as bases for comparative and cross-cultural studies which can lead to interesting findings and immense areas of potential research. It is quite noticeable that a country's Schwartz's level harmony dimension and its Inglehart's post-materialism index scores do influence an individual's pro-environmental behaviour through affecting his/her personal level of environmental concern. Nevertheless, the statistically non-significant effect of some of the items and variables in the conceptual model need further investigation. For example, the effect of the anticipation of guilt towards the environment on the intention to purchase organic food was statistically non-significant. Consequently, more studies should look into the effect of such emotions and expand the investigation to examining the use of guilt appeals in communication and its influential power in advertisements when it comes to pro-environmental behaving.

Another limitation was related to the time frame of the study. The research was of a cross-sectional design nature as in a single-occasion study with a time-based model. Such design hinders a deep exploration of the relationships between the different variables in the research model. Due to dynamic rapid developments in today's organic markets, the antecedents should not be tested only once. Moreover, the study did not consider investigating the different stages of the consumers' purchase experience. For future research, testing these promising and interesting

cause and effect relationships with the moderation roles in a longitudinal design over a certain elongated time horizon would offer an ongoing evaluation of the research model and its change relationships. This will help in gaining further knowledge especially if the different stages of the consumer purchase experience were considered.

An area that needs more research is in the role of values within the pro-environment behaviour domain. The current research was value specific as in testing the moderation role of self-transcendence values on the intention to purchase organic food. This is because the researcher wanted to investigate the values that are only environmentally related so as to better understand the organic food purchase behaviour resulting from pro-environmental behaving. Yet, studying opposing values is assumed to lead to finding out interesting results due to more logical interpretations of the whole continuum of values. Furthermore, it is well documented that pro-environmental behaviours are not only driven by personal values. Cultural values play a major role when assessing consumer behaviours in general and pro-environmental ones in specific. Therefore, considering the influence of the imperatives of cultural values in future studies would strengthen the results and provide narratives for cross-cultural comparative studies. From a different perspective, the weight that different personalities and identities put on behavioural actions should not be understated. Consequently, there is a call for a reintegration of value and personality research. Values do differ across different personalities and identities, individuals' life courses and throughout different generations. To better explore the purchasing of organic food behaviour, a study should adopt all the above different theoretical approaches for clearer and more beneficial insights. Similarly, revealing different personalities and testing various traits and identities could lead to more accurate interpretations.

As stated before, organic food purchasing as a behaviour is very much related to prestigious, modern and healthy lifestyles. Based upon this fact, studying these different lifestyles and merging them within the model could be an effective approach to understand the reasons behind the purchase behaviour more deeply. Besides, adding other segmentation variables that affect food choices will enhance the whole model and its results findings. Moreover, the research focused on multiple

variables affecting organic food purchase behaviour all from an environmental perspective. Parallel to this, the researcher acknowledged that such behaviour stems from various non-environmental variables. Consequently, combining the environmental and non-environmental variables in a single framework and testing their interactions and effect on consumer's orientation would provide a complete picture of organic food purchase behaviour. Furthermore, investigating and comparing more than one pro-environmental activity under an expanded model would bring out insightful findings. On the contrary, the current research was only limited to examining a single type due to the unawareness and/or unavailability of different pro-environmental behaviours in Egypt at the present moment.

From the researcher's point of view, integrating "habit strength" and "past behaviour" as moderating constructs in a model is an important later step. This step should occur when pro-environmental behaviours are performed more frequently. As for the current situation; intentions do predict behaviours well to an extent, but in the future, the more the behaviour is repeated, the weaker the influence of intention and the stronger the influence of habits and past behaviour. It is said that "past behaviour is the best predictor of future behaviour". Therefore, repeated behavior results in the establishment of a habit behaviour that is not influenced much by attitude, subjective norms, perceived control or intentions. From another angle, the research emphasized the positive behavioural outcome of purchasing organic food, while, ignoring the outcomes of not purchasing. To be considered in the future, is assessing the positive and negative scenarios of performing the behaviour and not performing it. Also, examining the difficulties or facilitating conditions of performing the behaviour. Alike, studying the positive or negative consequences accompanying the past purchasing behaviour. All these parameters will enrich the results leaving a space for comparisons.

Within this research scope, the service-scape phenomenon accounts for a major part of the research contribution. Merging its different dimensions in the model obtained new knowledge concerning the consumer's organic food purchasing experience. An interesting piece of future research would be studying such concept as a separate construct on a larger scale. The researcher believes that more research is needed directed towards measuring the multi-dimensional consumer's experience.

All rational and emotional elements experienced by all the human's senses should be integrated and evaluated. Studying the dimensional influences of the service-scape through the different model's constructs in the current study did take away from its essence in comparison to testing it on its own. Accordingly, more focus should be given to the service-scape to better understand how to direct organic food purchase behaviour in a pro-environmental direction. Moreover, other researchers could start implementing the service-scape concept in different areas, industries and contexts. This phenomenon is assumed to be having a lot of important implications in the future.

One a last note, in efforts of the researcher to make this research applicable and beneficial, the researcher links it to current major events taking place due to Covid-19. Since this study is concerned with the organic food retail industry from a pro-environmental behaviour and service-scape perspectives, it is important to highlight the impact of such a pandemic on the physical stores experience and the services offered. As much as the lockdown status was challenging, it brought up new opportunities for the retailing industry and forced businesses to rethink the way in which they do business. It was observed that the so called "new normal" reality had left people with contradicting feelings and two different mindsets when it comes to going to grocery stores. First, are the people who fear to get infected from being in touch with any aspect or person in the store, and second, are the ones, who because of getting locked down for quite a while, do appreciate getting back to their daily routines and simple tasks like going grocery shopping with respect to all the prevention measures. From a marketing perspective, this situation puts pressures on management to accommodate consumers in both scenarios. Moreover, the service-scape have to be used differently in order to be able to satisfy the two different poles of people.

On the one hand, there are the individuals who were forced by their government not to leave their homes during lockdown periods. This group was found longing for the grocery shopping experience as means of spending pleasant time outside, once they were allowed time out of the lockdown. Consequently, with all the new challenges of social distancing, minimizing face to face contact, queuing and time spent inside the store, the service-scape dimensions had to be manipulated

to conform to such procedures. In the present case, the store's management did come up with some tactics to comply with the situation. For example, the store determined specific number of consumers to be in the store in predetermined times. So, the store visits would be timed everyday by rounds (one hour per round) in order, to be able to control the number of people inside the store. Furthermore, some products were handled carefully outside the store with no damage and so were displayed outside the store to give more room inside and provide better ventilation for consumers during the time spent. Also, consumers were offered complete head to toe sterilization kits before entering the store. Additionally, every consumer was assigned a specific salesperson to be in charge of the whole visit. This salesperson is responsible of handling all products and cart for reasons of minimizing contact. The visual merchandize was still presented in the same ways, but through plexi sheets to ensure cleanliness and hygiene. All this was done in trials of maintaining the effect of the situational social influences and contextual environment which as discussed had major roles in the purchase decision making process.

On the other hand, there are the individuals who the lockdown led to a state of fear of getting infected through any type of interaction and so they decided not to visit any grocery stores in the near future. This kind found comfort in the new reshaped virtual experiences instead of usual brick and mortar experiences. Accordingly, there is a need for the adoption of whole new levels of e-services and other technological advances to better serve consumers. Similarly, the service-scape dimensions need to evolve to be able to attract and attain consumers from an online perspective. In the present case, the management was keen on working on all the service-scape variables in efforts of making consumers realize benefits that they were unaware of in the first place. They wanted to alter the experience according to the consumer's mindset through some readjusted strategic tactics. For example, the store is planning to offer a web shopping experience though developing 3D virtual reality experiences with at door deliveries equivalent to the consumer's normal in store experience. Moreover, these e-experiences will be displayed in a more vivid approach by putting emphasis on more humanistic and social interactive aspects. Likewise, the presentation of the food through the website will be as close to the display in the store. This is to try to fulfill the various needs of diverse segments of consumers through satisfying their various arrays of touch points. As a result, the

whole consumer experience is assumed improved and businesses create new competitive edges to survive in the market during such hard times.

Faced with the pandemic consequences, the service-scape role becoming twofold. First, the dimensions can be used to pave the way for new sensory-enabling technologies towards better engagement in e-commerce experiences. Second, using the service-scape dimensions to attract consumers and provide them with satisfactory in store experiences in efforts of convincing them to return to daily habits. Nevertheless, the evaluation of the service-scape dimensions and how they work together in harmony and flexibility to manage different scenarios, problems, crises and situations give an edge to the knowledge gained and contributed by this research. Still, more research is needed targeted towards the multisensory retail environment (virtual and psychological) and its influence on consumer's behavioural experiences over different times. Some researcher has started talking about these issues like Willems *et al.*, (2021) while, more questions need to be answered and gaps to be covered by other researchers.

6.7. Summary

There is no better way to wrap up the thesis except by ending by this conclusion chapter. This chapter cascaded the research importance and aim to the objectives and questions. Moreover, it presented the research contribution to theory and practice which sheds light on the main reasons why the researcher wanted to pursue the PhD thesis on the pro-environmental/organic food area in specific. Furthermore, the chapter demonstrated strategic implications based on the research results that were obtained. Such points will be of benefit to a lot of stakeholders in the area of organics and individuals interested in the area of pro-environmental behaviours. At last, the chapter ended by recommending some points to research in the future. In addition, stating some points that were seen as limiting the current research.

The researcher hopes that this study enriches the literature and covers the gaps when it comes to organic food behavior within the pro-environmental behaviour context. Also, it is believed that this research is of benefit as it is implemented in a developing and emerging market which has received less attention from scholars. Although governmental authorities, environmental representatives

and, more recently, organic industries officials work on promoting societal awareness towards environmental problems and protection, in addition to the behavioural consequences mainly when it comes to individual practices, still, there seems to be a gap between the insufficient current status and the desired one. A deep understanding of this gap and how it could be minimized is important for quicker and better consumer adoption to more environmentally friendly lifestyles and consumption behaviour patterns (Rezvani *et al.*, 2017). So, there is a need to develop and communicate new strategies to fulfill this gap and guarantee success. Consequently, this research study examined the attitude-intention-behaviour gap through different antecedents and phenomena in efforts to motivating effective pro-environmental behavioural lifestyles through everyday simple activities like purchase of organic grocery food.

The researcher perceived the whole organic food purchasing behaviour from a service-scape point of view. By identifying the different antecedents and examining the various dimensions of such phenomenon, the results were able to pinpoint the elements that influence the consumer's organic food purchase behavioural experience. These service-scape variables are to be controlled and used in order to influence the purchase behaviour so that it results out of pro-environmental behaving. This research sheds light on the Egyptian society, specifically the unawareness, low knowledge and resistance of society members when it comes to environmental matters. Additionally, it highlights the potential emerging trends expressing effective and efficient pro-environmental lifestyles. Furthermore, the study calls out for the limited presence of clear strategies, effective motivational change plans and official strategic frameworks ensuring effective pro-environmental behaviour activities through analyzing purchase of organic food as a result of pro-environmental behaviour.

Appendix A

Dear Participants,

This questionnaire is distributed for the aim of a research serving only an academic purpose.

“Pro-environmental behaviour” is behaving in ways that protect or cause less damage to the environment. Pro-environmental behaviors include, but are not limited to, the following: use of public transportation, energy-efficient appliances, home insulation, water-saving devices, and organic product consumption.

In addition, the scope of this questionnaire will be focusing on organic food purchase in respect to its relation with pro-environmental behaviour.

We kindly, request that you help us by filling out this questionnaire directly and honestly. Make certain that any information provided by you will be kept confidential and only the people who are working on this research will gain access to the information given.

Thank you for your time and participation in this research.

The Researcher

Have you bought any type of organic food throughout the past 6-12 months?

Yes

No

Here we briefly describe different people. Please read each description and think about how much is it or is not like you. Put an(X) in the box to the right where (1) is not at all like me and (6) is very much like me:

Description	Not like me at all 1	Not like me 2	A little like me 3	Mode rately like me 4	Like me 5	Very much like me 6
1. It is important to me to be loyal to my friends. I want to devote myself to people close to me.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. It is important to me to be a dependable and trustworthy friend.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. It is important to me that all my friends and	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

family can rely on me completely.						
4. It is very important to me to help the people dear to me.	<input type="checkbox"/>					
5. It is important to me to take care of people I am close to.	<input type="checkbox"/>					
6. It is important to me to concern myself with every need of my dear ones.	<input type="checkbox"/>					
7. It is important to me that the weak and vulnerable in society be protected.	<input type="checkbox"/>					
8. It is important to me that every person in the world have equal opportunities in life.	<input type="checkbox"/>					
9. It is important to me that everyone be treated justly, even people I doesn't know.	<input type="checkbox"/>					
10. It is important to me to care for nature.	<input type="checkbox"/>					
11. It is important to me to take part in activities to defend nature.	<input type="checkbox"/>					
12. It is important to me to protect the natural environment from destruction or pollution.	<input type="checkbox"/>					
13. It is important to me to be tolerant toward all kinds of people and groups.	<input type="checkbox"/>					
14. It is important to me to listen to and understand people who are different from me.	<input type="checkbox"/>					
15. It is important to me to accept people even when I disagrees with them.	<input type="checkbox"/>					

Please indicate your opinion about the following points:

<p>▪ “Behaving pro-environmentally is”</p> <p>Beneficial 1 2 3 4 5 6 7 Harmful</p> <p>▪ “Behaving pro-environmentally is”</p> <p>Wise 1 2 3 4 5 6 7 Foolish</p>							
--	--	--	--	--	--	--	--

- “Buying organic food instead of conventional food is”

Beneficial 1 2 3 4 5 6 7 Harmful

- “Buying organic food instead of conventional food is”

Wise 1 2 3 4 5 6 7 Foolish

- “Behaving pro-environmentally would make me feel”

Good 1 2 3 4 5 6 7 Bad

- “Behaving pro-environmentally would make me feel”

Pleased 1 2 3 4 5 6 7 Unpleased

- “Buying organic food instead of conventional food would make me feel”

Good 1 2 3 4 5 6 7 Bad

- “Buying organic food instead of conventional food would make me feel”

Pleased 1 2 3 4 5 6 7 Unpleased

- “In general, for me behaving pro-environmentally would be”

Easy 1 2 3 4 5 6 7 Difficult

- “If I want to, I could easily behave pro-environmentally ”

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

- “In general, for me to buy organic food instead of conventional ones would be”

Easy 1 2 3 4 5 6 7 Difficult

- “If I want to, I could easily buy organic food instead of conventional ones”

Strongly agree 1 2 3 4 5 6 7 Strongly disagree

- “Most people who I value would behave pro-environmentally”

Strongly agree 1 2 3 4 5 6 7 **Strongly disagree**

- “People who influence my decisions would approve of me behaving pro-environmental”

Strongly agree 1 2 3 4 5 6 7 **Strongly disagree**

- “Most people who I value would buy organic food instead of conventional ones”

Strongly agree 1 2 3 4 5 6 7 **Strongly disagree**

- “People who influence my decisions would approve of me buy organic food instead of conventional ones “

Strongly agree 1 2 3 4 5 6 7 **Strongly disagree**

- “I would feel guilty if I did not behave pro-environmentally”

Not Guilty 1 2 3 4 5 6 7 **Guilty**

- “My conscience towards the environment would bother me if I did not behave pro-environmentally”

Not Bothered 1 2 3 4 5 6 7 **Bothered**

- “I would feel guilty if I did not buy organic food”

Not Guilty 1 2 3 4 5 6 7 **Guilty**

- “My conscience towards the environment would bother me if I did not buy organic food”

Not Bothered 1 2 3 4 5 6 7 **Bothered**

▪ I intend to behave pro-environmentally in the near future”

Definitely do 1 2 3 4 5 6 7 **Definitely do not**

▪ “I will behave pro-environmentally in the near future”

Extremely likely 1 2 3 4 5 6 7 **Extremely**

▪ I intend to buy organic food instead of conventional ones in the near future”

Definitely do 1 2 3 4 5 6 7 **Definitely do not**

▪ “I will buy organic instead of conventional ones in the near future”

Extremely likely 1 2 3 4 5 6 7 **Extremely unlikely**
unlikely

Based on the general pro-environmental behaviors listed below, please indicate how likely are you to take the following actions, where (1) is never and (5) is always:

General pro-environmental Behavior	1 Never	2 Most times do not	3 Sometimes do not	4 Neutral	5 Sometimes do	4 Most times do	7 Always
1. I wait until having a full load before doing laundry							
2. I point out un-environmental behavior to someone							
3. I buy products in refillable packages							
4. I buy seasonal produced food							
5. I read about environmental							

issues							
6. I talk with friends about environmental problems							
7. I turn down the air conditioning when leaving place							
8. I look for ways to reuse things							
9. I encourage friends and family to recycle							
10. I buy food to my convenience							

Please indicate your opinion about the following statements related to organic food purchase by choosing (X) where (1) is strongly disagree and (5) is strongly agree:

Statement	1 Strongly disagree	2 Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree
I purchase organic food even if I rarely see it where I shop							
I purchase organic food regardless of its price							
I purchase organic food even if I do not have enough information about it							
I purchase organic food even if I have no confidence that food							

labelled organic produce truly are organically produced							
I purchase organic food regardless seeing its benefits							
I purchase organic food regardless of its quality							

▪ How often do you buy organic food?
Never buy 1 2 3 4 5 6 7 Always buy

▪ How much organic food do you consume in comparison to your overall food consumption?
Very little of my consumption 1 2 3 4 5 6 7 most of my consumption

▪ How much do you spend on organic food in relation to your total spending?
Spend a little 1 2 3 4 5 6 7 spend a lot

“Please evaluate the following items based on your experience in the organic food store by choosing (X) where (1) is strongly disagree and (5) is strongly agree:

Item	1 Strongly disagree	2 Disagree	3 Somewhat Disagree	4 Neutral	5 Somewhat agree	6 Agree	7 Strongly agree
The store’s lighting affects my purchase behaviour							
The store’s background music affects my purchase behaviour							
The store’s smell affects my							

purchase behaviour							
The store's design, colors and layout affect my purchase behaviour							
The store's presentation of visual merchandising affects my purchase behaviour							
The store's location and parking facilities affect my purchase behaviour							

Please indicate your opinion about the following statements:

<p>▪ “Deteriorations happening to the environment makes me”</p> <p>Very happy 1 2 3 4 5 6 7 Very stressed</p> <p>▪ “Not being able to control my irritations because of the environmental issues makes me”</p> <p>Very happy 1 2 3 4 5 6 7 Very stressed</p> <p>▪ “Buying organic food makes me”</p> <p>Very stressed 1 2 3 4 5 6 7 Very happy</p> <p>▪ “I enjoy life, regardless of whether I buy conventional or organic food”</p> <p>Enjoy very much 1 2 3 4 5 6 7 Not enjoying at a</p>

Personal Information:

Age:	<ul style="list-style-type: none"> ▪ 18 - 24 ▪ 25 - 34 ▪ 35 - 44 ▪ 45 – 54
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	<ul style="list-style-type: none"> ▪ 55-64 ▪ 65 years or older
Gender:	<ul style="list-style-type: none"> ▪ Male ▪ Female
City of Residence:	<ul style="list-style-type: none"> ▪ Cairo ▪ Alexandria ▪ Other
Average Monthly (Household) Income:	<ul style="list-style-type: none"> ▪ Less than 1,000 L.E ▪ 1,001-5,000 L.E ▪ 5,001-10,000 L.E ▪ 10,001-15,000L.E ▪ 15,001-20,000L.E ▪ 20,001-25,000L.E ▪ 25,001-35,000L.E ▪ Above 35,000L.E
Occupation:	<ul style="list-style-type: none"> ▪ Student ▪ Housewife ▪ Self-employed ▪ Private sector employee ▪ Public sector employee ▪ Retired ▪ Unemployed ▪ Other
Marital Status:	<ul style="list-style-type: none"> ▪ Single ▪ Married ▪ Divorced ▪ Widowed
Level of Education:	<ul style="list-style-type: none"> ▪ No schooling completed

	<ul style="list-style-type: none">▪ High school graduate▪ University / College graduate▪ Post college graduate▪ Other <p>.....</p> <p>....</p>
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Thank you for your time and participation!

List of Glossary

TRA	Theory of Reasoned Action
TPB	Theory of Planned Behavior
NAM	Norm Activation Model
VBN	Value Belief Norm Theory
SCT	Social Cognition Theory
PTT	Personality Trait Theory
USDA	National Organic Standards Board of the US Department of Agriculture
NEP	New Environmental Paradigm
SVS	Schwartz Value Survey
PVQ	Personal Values Questionnaire
CAPMAS	Central Agency for Public Mobilization and Statistics
SPSS	Statistical Package for the Social Sciences,
SEM	Structural Equation Modeling
GEBS	General Ecological Behaviour Scale
UNDP	United Nations Development Program
INP	Initial National Program
EFA	Exploratory factor analysis
CFA	Confirmatory factor analysis
CMIN	The Minimum Discrepancy
GFI	Goodness Of Fit Index
AGFI	Adjusted Goodness of Fit Index

CFI	Comparative Fit Index
IFI	Incremental Fit Index
TLI	Tucker-Lewis index
RMSEA	Root Mean Square Of Approximation
AVE	Average Variance Extracted
FL	Factor Loading
VIF	Variance Inflation Factor
KR	Kuder-Richardson Tests
SD	Standard Deviation
MLE	Maximum Likelihood Estimation
DF	Degrees Of Freedom
NFI	Normed Fit Index
TLI	Tucker-Lewis index Fit Index
CFI	Comparative Fit Index
RMR	Root Mean Square Residual
RMSEA	Root Mean Square of Approximation
KMO	The Kaiser-Meyer-Olkin measure
VIF	Variance Inflation Factor

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