FACTORS AFFECTING MILLENNIALS' ATTITUDES AND PURCHASE INTENTIONS TOWARDS ORGANIC PERSONAL HEALTHCARE PRODUCTS

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Abstract

The organic products market is experiencing exponential growth owing to various factors that increase consumers' desire to search for beneficial and less harmful products for their health and personal well-being. Aptly, the knowledge gap in understanding the factors that influence the Millennial consumer cohort's attitudes to and purchase intention towards organic personal healthcare products (OPHP) in South Africa's emerging market is gradually diminishing. This study investigates the effect of specific factors that influence consumers' OPHP purchasing intention and their awareness of its uses and proceeds from the United Nations' Sustainable Development Goals (UN SDGs) 3 and 12 narratives. A descriptive research design applying a cross-sectional survey approach to data collection was adopted. Data were collected from 305 respondents, using Smart PLS-SEM to examine the study's constructs. The results revealed that the constructs of environmental concerns (EC), perceived product quality (PPQ), and perceived product knowledge (PPK) had significant and positive associations with consumers' attitudes towards purchasing OPHPs. The study provides marketing practitioners with valuable insights that, from the developing South African healthcare market's perspective, could help to increase consumer purchasing rates and contribute to the alleviation of global health epidemics and communicable diseases.

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1. Introduction

1.1. Background

Consumer behaviour has become a significant and frequent subject of empirical scientific studies. This is because of the mounting importance of healthcare and global environmental concerns. The association between the inseparable components of human health and a sustainable environment has become apparent over the years when we reflect on the challenges connected with a healthy lifestyle (Khan et al., 2022). Thus, environmentalism has also become a vital subject for both marketing practitioners and researchers across the globe (Pulido & Ramon-Jeromino, 2023), as unsustainable consumption patterns have led to greater environmental problems (Carrión Bósquez & Arias-Bolzmann, 2022). The scale of these increasing problems can be seen in water, land, and air pollution, global warming disasters, reduction of the ozone layer, and rising sea levels, raising concerns about the everchanging consumer consumption patterns (Wang, 2022). Carrión Bósquez and Arias-Bolzmann (2022) state that these environmental tribulations have a major impact on socio-economic, health and personal well-being around the globe and mainly found in developing countries, given their limited ability to effectively deal with such challenges (Hales & Birdthistle, 2023).

Succeeding the United Nations' Sustainable Development Goals (UN SDGs) and transformative narratives established in an attempt to reduce the impact of negative social paradigms and the call to the global population to consider leading a healthier lifestyle, and revisit their consumption habits and to supportively respond to negative environmental issues (Parker et al., 2022). This research is undertaken in the field of marketing to investigate the factors that influences the consumer's attitudes and purchase intention patterns towards organic personal healthcare products (OPHP), which its uses have grown exponentially in recent years (Pânzaru et al., 2023; Rashwan et al., 2024). In the mist of the environmental challenges brought by consumer behaviour as alluded to earlier, the organic personal care product market has also experienced immense grown globally, consistently along with mounting concerns about the consumers' everchanging consumption patterns (Precision Reports, 2024). Organic products are goods produced through green technology as non-toxic and recyclable products that do not damage or badly contaminate the ecosystem and that reduce production costs (Orozco-Angelino et al., 2023). Organic personal healthcare products (OPHPs) can be found in various classifications such as shower products (toiletries); deodorants; fragrances; hair, skin, and oral care; feminine hygiene products; make-up; and cosmetics (Vergura et al., 2020). Ahmed et al. (2020) mention that most of these products are made with genuine ingredients such as beeswax, sea salt, aloe vera extracts, shea butter, jojoba oilseed, and natural oils and plant extracts that are refined without using artificial fertilisers or altered organisms, all of which usually address the consumer's varying preferences.

The rising appetite for using OPHPs is also fuelled by the UN SDGs' fundamentals and programmes that are aimed at increasing sustainable consumer awareness and sensibility about their health and wellness (Foroudi et al., 2023). This tends to be important as consumers are increasingly seeking to enjoy the effects of sustainable good health and well-being while consuming their preferred product choices (Kretschmer & Kahl, 2021), with the specific distinctions of SDG 3 (Good health and well-being), SDG 12 (Responsible production and consumption), and SDG 13 (Climate action), which aim to eradicate global health epidemics and communicable diseases by 2030 (Pânzaru et al., 2023). SDG 3 and SDG 12 are of particular interest to this enquiry in the quest to understand consumers' perceptions of the acceptance and uses of OPHP better, especially from an emerging market perspective. A good number of recent studies that focused on the uses of OPHP have been undertaken, mainly in developed markets, with scant evidence of such studies in developing markets that would assist marketers to design effective strategies to promote the consumption of such products (Labiad & Parso, 2024; Parashar et al., 2023). The developing South African healthcare and cosmetics market is no exception in this regard. Various studies investigated the consumer purchase intentions towards organic products in developing markets, with the main focus being on for example, market segmentation (Duangekanong, 2020; Patel et al., 2021), analysing lifestyle and values, environmental and health consciousness (Raj et al., 2024) as the basis of their investigations. However, the evidence from empirical investigations into consumers' perceptions of the uses and benefits of OPHP is very limited in developing markets, particularly from the Millennial consumer cohort's point of view.

Bevan-Dye (2022) mentions that Millennial consumers are classified as individuals who were born between the years 1986 and 2005; thus, they were aged between 18 and 38 years in 2024. This is a consumer cohort that has a huge appetite for paying premium prices for organic products (Curvelo , 2019; Neufeld, 2021). This cohort is a rich source of information, usually showing greater concerns for environmental issues, and they are well-acquainted with the benefits of consuming organic and green products, given their spending power and inclination to purchase such merchandise (Carrión Bósquez et al., 2023; Francis & Sarangi, 2022). Bósquez et al. (2023) state that it is for such reasons that this generational cohort should be viewed as a key market for investigation, particularly in an emerging market context. Despite the vast amount of knowledge and awareness of the uses and benefits of organic products, the literature confirms that many studies show disparities in consumer attitudes and consumption patterns, which tends to make it difficult for marketers to devise suitable means of optimally satisfying consumers' needs (Ntobela & Mbukanma, 2023).

Given that there is a growing call for researchers to explore organic products and their uses, acting upon the UN SDGs initiatives, and noting that there are certain similarities in consumer purchasing motives and opinions about organic products across numerous markets (Daraboina et al., 2024), and its substantial effects on the Millennial's consumption patterns (Dalziel & De Klerk, 2021). For this

reason, Mohammad (2019) and Vergura et al. (2020) underline that this research gap needs to be bridged, especially when looking at the Millennial's everchanging behaviour in the buoyant landscape of consumer behaviour. Also, the relationship between consumer attitudes towards OPHP and their actual purchase intention, and how this might differ across various demographic groups is what enthuses this enquiry (Mkhize & Ellis, 2024). Accordingly, the connection between the Millennial consumers' consumption patterns and purchase intentions presents a fertile ground for exploration, especially within South Africa's emerging healthcare and cosmetics market in the southern region of Gauteng province. Hence, this study was commissioned. This study adds to the existing consumer behaviour body of knowledge about OPHP contributing towards the realisation of the SDGs in two fields. The first is to increase knowledge about the Millennial consumer behaviour in relation to the consumption of OPHP for sustainable human health and well-being by investigating the association between distinct cognitive variables and consumer purchase intentions; and the second is to investigate the significance of the proposed variables that are analysed as factors affecting the consumption of organic products from an emerging market ecosystem. This direction is encouraged by previous studies that recommend that specific variables be tested in order better to understand Millennial consumers' purchase intentions towards organic products. Accordingly, it would be prudent for marketing practitioners to appreciate consumers' perceptions of the products' uses and their purchase intention towards OPHP in the quest to increase profitability and to limit production and consumption costs (Vergura et al., 2020). Also, to enhance knowledge on organic products that are recognised to be contributing to sustainable practices towards the achievement of SDGs (FAO, 2023).

This paper is structured as follows. First, the introduction is presented. Second, the study's problem statement is discussed. Third, the objectives of the study are stated. Fourth, a literature review is provided, followed by a presentation of the study's research methodology. This enquiry's results are be presented, followed by a discussion of its managerial implications. The conclusion, the study's limitations, and suggestions for future research are provided last.

1.2. Problem statement

The demand for organic products has significantly increased in recent times. Health predicaments tend to encourage the increased use and consumption of products produced using environmentally friendly agricultural methods and that are not artificially transformed (Cachero-Martinez, 2020). It is vital for service providers to know how consumers of organic products respond to calls for increased consumption of such products, if they are to improve their marketing strategies and contribute towards the realisation of the SDGs (FAO, 2023; Mkhize & Ellis, 2024). Even though the economic incentives and the potential benefits of understanding consumers' preference for purchasing organic products have been thoroughly researched, in emerging markets little is known about what underlies the

Millennial consumer cohort's attitudes and intention to purchase such products (Dalziel & De Klerk, 2021). Bósquez et al. (2024) established that Millennial consumer who avoided genetically established products and agricultural chemicals, prefer organic products for various reasons such as, avoiding excessive use of synthetic medicine and chemical fertilizers in nonorganic agriculture, to increase production methods found to negatively impact human health, their well-being and the global environment. For such reasons, people tend to demand healthier products that reduce waste and pollute less (Herrero et al., 2023). This occurrence is encouraged by consumers who regard organic products as certified and reliable commodities that contribute towards the suppression of negative healthy conditions and environmental concerns (Raj et al., 2024; Rashwan et al., 2024). Therefore, this study investigates the factors that affect, specifically the Millennial consumer's attitudes towards using, and their purchase intention towards environmentally friendly products in support of UN SDGs 3 and 12, as concerns grow about healthy living and avoiding the risks raised by the synthetic chemicals used in the production of many inorganic consumer products, from an emerging South Africa's health and cosmetics market. Accordingly, investigating consumer behaviour and consumption patterns towards OPHP and increased marketing efforts aligns well with the principles of Agenda 2063 and the SDGs that further encourages the pursued of awareness campaigns and thus, to appropriately promote the consumption of organic products, it is necessary to know what factors affect consumers' consumption and purchase intentions.

1.3. Research objectives

To deal properly with the research problem and to examine the relationships between the study constructs, the primary objective was to establish the factors that stimulate the Millennial consumers' attitudes and purchase intention towards OPHPs in the southern region of Gauteng province of South Africa. In order to achieve that goal, the following theoretical objectives were set:

- To review the literature on the factors influencing Millennial consumers' attitudes to, and their purchase intention towards, OPHPs: perceived consumer effectiveness (PCE), perceived product knowledge (PPK), perceived product quality (PPQ), and environmental concern (EC).
- To perform a literature review on the theories underpinning this study: the theory of reasoned action (TRA) and the theory of planned behaviour (TPB).
- To provide a synthesis of the literature on the uses of OPHPs as part of green marketing, and to propose a theoretical framework that clarifies the factors that stimulate Millennial consumers' attitudes towards sustainable health and well-being in using organic products, thus leading to continued purchase intentions.

2. Literature review

The United States of America is the biggest organic food and drink market in the world, followed by Germany, and France, while Denmark, Austria and Switzerland are following suit (Lapiad & Marso, 2024). The continued consumer behaviour of consuming organic products is stimulated by its growing demand, thanks to their benefits (Cachero-Martínez, 2020; Pânzaru et al., 2023). Grand Review Research (2019) reports that the global market size of organic personal care products was valued at US$19.3 billion in the year 2021, and that it is projected to reach US$ 25.11 billion by the end of the 2025 financial year, with a compound annual growth rate (CAGR) of 9.1 per cent leading up to the year 2030. In South Africa, market revenue was US$ 3.3 billion at the 2021 financial year-end, and projected to increase at a CAGR of 9.9 per cent, reaching US$ 6.16 billion by the end of the 2024 financial year (InvestSA, 2020). Despite the various factors found through empirical research to influence the consumption of organic products, the modest low percentage could be attributed to several aspects that need to be properly investigated to improve marketing strategies (Curvelo et al., 2019) and to drive the quest for sustained consumer personal health and well-being and for improved environmental interests.

2.1 Organic personal healthcare products

OPHPs are "products that use natural, organic, biodegradable materials, recycled packaging and are manufactured under a minimal environmentally damaging process" (Lupindo, 2020, p.43). Ferreira et al. (2022) mention that these products can be separated into different categories, such as baby products; fragrances; hair care; cosmetics; manicure; shower and oral hygiene; depilatories (shaving); and skin care (lotion, cream, spray, powders, and cream) products for both males and females. This enquiry adopted the market product classification of the European Cosmetic, Toiletry and Perfumery Association (COPLIA), which categorises different products into five groupings, depending on their uses. A few of these products are briefly described below.

2.1.1 Haircare products

George and Potlapati (2021) describe hair products are commodities used to treat, groom, cleanse, and condition hair. These products are found in setting lotions and setting mousses, hair sprays, gels, creams, and brilliantine, and are made from degradable elements and are free of any material that damages the environment. The hair care products market has seen remarkable growth owing to its systematic uses and the expanding consumer preference for hair salons and beauty spas. The haircare market segment has grown at a CAGR of 6.4 per cent since 2022 (Global Industry Analysis, 2021). Haircare products such as shampoo play a critical role in the cosmetics category that eliminates the need for soap when washing hair, dealing with scalp dirt, dust, and dandruff, and providing intense repair therapy (Rawal & Singh, 2024). Fortune Business Insights (2024) reports that, with a projected

CAGR of 3.6% from 2021 to 2028, it is estimated that shampoo products in the cosmetic category will grow globally to USD 39.58 billion by 2028.

2.1.2 Skincare products

Organic skincare products include facial, hand, body, sun care items, and any product linked to skin improvement, conditioning, and appearance (Liu, 2022). Hsu et al. (2017) state that organic skincare products are made from botanically sourced materials and ingredients (such as roots, herbs, flowers, and essential oils) that are intermixed with pure preservatives. According to Bui et al. (2021), organic skincare products do not use synthetic chemicals, and are produced to conserve the reliability of the ingredients. Thus, these products have established themselves in the global cosmetics market as the most popular beauty products. In 2022, US$ 11 billion was spent in the global organic skincare product market, and it is estimated to reach or even exceed US$ 25.5 billion by the end of the 2032 financial year, showing a CAGR of about nine per cent per year (GlobeNewswire, 2023).

2.1.3 Fragrance and deodorants

The term ‘fragrance’ denotes a combination of cardinal oils found in the form of perfumes and body sprays that give the body a pleasant smell, thereby hiding natural body odour. Deodorants reduce the microbial metabolisms that cause unpleasant sweat and body odour (Teerasumran et al., 2023). Deodorants consist of eau de cologne, eau de toilette, eau de lavender, and perfume de toilette (Daraboina et al., 2024). Global Industry Analysis (2021) reports that the fragrance product segment expanded at a CAGR of 4.6 per cent in 2022, and was projected to grow at a rate of CAGR 9 per cent per year thereafter (GlobeNewswire, 2023).

2.2 Green marketing and sustainable environment

Numerous concepts and approaches have been developed to deal with the challenges associated with personal health and its environmental impact. One of them is green marketing, which is aimed at responding to ecologically conscious consumers (Muchenje et al., 2023). Green marketing is a comprehensive process that is aimed at identifying environmentally friendly ways of meeting customers’ needs in cost-effective and sustainable ways (Bulsara & Trivedi, 2023; Mohowa, 2021). An increase in green marketing has led many to adopt this concept to gain a competitive edge, as this approach is in line with the UN SDG initiatives that are aimed at promoting sustainability (Mukonza et al., 2023). In recent times, various organisations and marketing practitioners have integrated green products into their product mix to appeal to those with an appetite for organic products (Barbu et al., 2022). Therefore, green marketing campaigns that promote more uses of organic products are appropriate to induce manufacturers and consumers' decision-making process in a positive way. Yet, Kollmuss and Agyeman (2002) underscore that consumer environmentally friendly attitudes do not

necessarily denote they behave in an environmentally friendly way, as green consumers are more relatable to obtaining environmentally friendly products, saving resources, reusing and advancing shared values linked to the adoption of eco-innovations in most instances (Jaca et al., 2018). Accordingly, the identified strategies to develop consumer trust to green products such as OPHP, include green advertising (Mansoor et al., 2023) and green initiatives (Green 2024), given that they can allow the company to effectively inform consumer about the environmental value and its offerings. Therefore, creating awareness for a better and more sustainable future could come in handy in addressing sustainable environmental deprivation and human well-being.

2.3 Global and South African organic products market

The global organic products market has constantly grown alongside increasing environmental concerns (Ayayi et al., 2024). According to Grand Review Research (2019), the North American market leads with the biggest organic products market, followed by Europe, Asia, and Latin America (Grand Review Research, 2019; Willer & Lernoud, 2019). Specific countries such as Denmark at 8.8 per cent, Switzerland at 7.7 per cent, Luxembourg at 7.5 per cent, Sweden at 7.3 per cent, and Australia at 7.1 per cent have also shown significant growth rates. The global sales of personal care products surpassed US$800 billion at the end of 2023, growing at a CAGR of seven per cent (Masory, 2019). In 2020, the global personal care market was priced at US$ 341.1 billion, and it is anticipated to reach US$ 560.50 billion by 2030, with a CAGR of 5.1 per cent between 2021 and 2023 (Global Industry Analysis, 2021).

Despite these encouraging projections, the global demand for OPHPs makes up only a fraction of the total personal healthcare sales. The annual sales of OPHPs, projected to reach US$ 22 billion by the end of 2024 at a CAGR of 12 per cent, remain to be seen (Masory, 2019), given the ever-changing Millennial consumer lifestyles and consumption patterns and the general demand for organic products. Although the OPHPs market shows a promising trend of growth globally, on the African continent the organic personal care products market stood at a CAGR of 6.6 per cent between 2018 and 2020, with South Africa being the leading market when it comes to the consumption of such products in the cosmetic industry at 36 per cent (Mordor Intelligence, 2021).

3. Theories underpinning the study

3.1 Theory of reasoned action (TRA)

The TRA is based on social psychology, and focuses on individual behaviours that end up with interactive goals in researching attitudinal-behavioural relationships (Ajzen, 1991). The TRA is a widely used theory that was introduced in 1967 and that grew in influence during the 1970s (Ajzen, 1980). It is a well-known theory that is applied to analyse attitudinal relationships. Ajzen (1991) asserts that the TRA is used to predict a person's intentions, based on specific beliefs that may sway the person's decisions or actions. Ajzen (1980) also states that people's attitudes towards a specific

action are tied to views that are linked with the envisaged results after performing a particular behaviour. Thus the TRA has been widely applied to predict individuals' behaviour (Dilotsotlhe, 2021), as it incorporates subjective norms and attitudes as major factors that influence behavioural intention and reasons to act in a particular manner (Madden et al., 1992). This statement is affirmed by Ajzen and Fishbein (1980) and by Fishbein and Ajzen (1975), who stress that the TRA assumes that individuals are cogent and use the information available to them competently. Accordingly, individuals' attitudes play a vital role in driving their behavioural intention, which explains individual disparities in decision-making processes that describe their purchase intentions (Ajzen, 1991).

3.2 Theory of planned behavior (TPB)

The TPB was advanced as an extension of the TRA, as it incorporates individuals' perceived behavioural control measures (Ajzen, 1991; Madden et al., 1992). TPB is suitable in forecasting consumer intention in numerous contexts (Yang et al., 2018), featuring organic products (Rana & Paul, 2017). Ajzen (1991) stresses that the TPB is prefaced on the assumption that an individual's intention to display a certain behaviour is a direct determinant of their intentions, and an illustration of what motivates such an act or behaviour (Bazhan et al., 2023). Accordingly, the TPB supports the idea that the probability of an individual displaying a certain behaviour is higher when their perceived behaviour is elevated and only if their intentions remain constant (Shukla, 2019). It is for this reason that the TPB is appropriate to the research field of consumer behaviour; it assists with understanding and predicting individuals' behavioural intentions (Kian & Chia, 2021; Shimul et al., 2021). As this enquiry investigates the factors that stimulate the consumer's attitudes to and purchase intention towards OPHPs, with the adoption of TPB as the basis of the study, the appropriateness and robustness of this theory in predicting human behaviour confirms its choice (Ajzen 1991).

3.3 Research model and hypothesis development

The conceptual research model presented in Figure 1 depicts the study's proposed constructs and their associations.

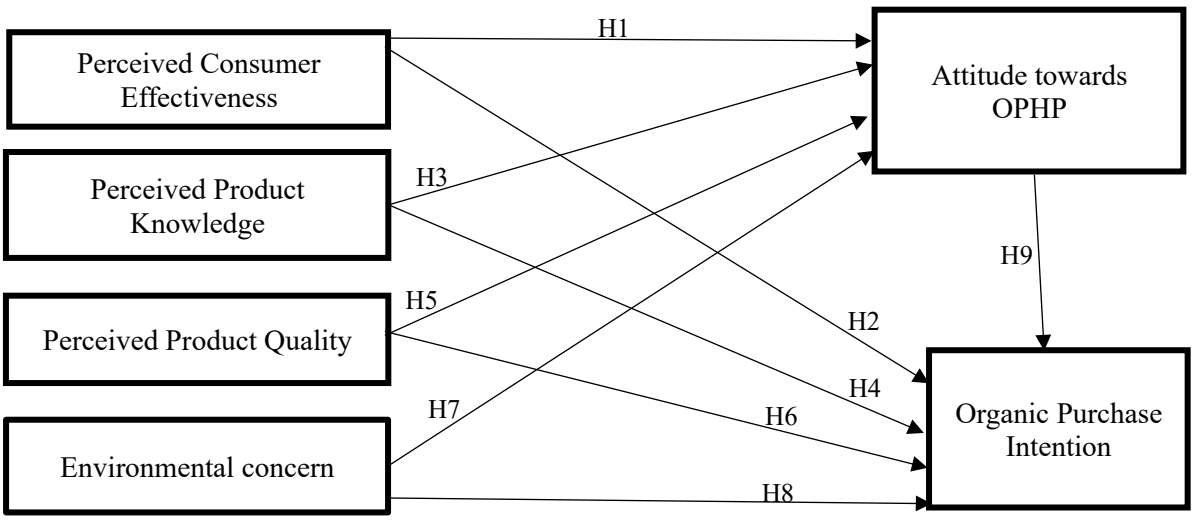

Figure 1: Conceptual framework of the study

1.

2.

3.3.1 Perceived consumer effectiveness (PCE)

According to Lee et al. (2019), PCE denotes the degree to which an individual deems the benefits of using organic products sufficient for them to continue purchasing those products. An individual's belief is formed by direct or indirect knowledge or various experiences, based on their capabilities and resources. Baldi et al. (2021) state that consumers' positive experience of their behavioural effects supports their attitudes and responses towards organic products. In the context of OPHP uses, if consumers believe that they would benefit from consuming such products, they are more likely to continue consuming them in future. Thus, the PCE construct has been investigated to assess consumers' perceptions of their use of organic products and their awareness of their environmental effects in pursuit of UN SDGs 3 and 12. Accordingly, PCE has been identified as having a significant influence on individuals' attitudes to the consumption of organic products and continued purchase intentions (Amin & Tarun, 2022). Numerous studies have confirmed that PCE is positively associated with consumers' attitudes to using organic products, thanks to the benefits derived from continually consuming such products (Aitken et al., 2020; Roy et al., 2023). Based on the foregoing arguments, it is hypothesised as follows:

H1: Perceived consumer effectiveness has a positive and significant impact on the Millennial consumer's attitude towards OPHPs.

H2: Perceived consumer effectiveness has a positive and significant impact on the Millennial consumer's purchase intention of OPHPs.

3.3.2 Perceived product knowledge

Perceived product knowledge (PPK) denotes the individual's knowledge of OPHPs, based on their direct or indirect knowledge and experiences, such as user involvement and product information received or consumed in the past (Yildiz et al., 2022). The success of organic product purchases relies heavily on the consumer's product knowledge as the main driver of their decision to purchase on a continual basis (Foster et al., 2022). From the literature review, the consumer's PPK has a substantial bearing on their attitudes and inclination to purchase organic products (Fatha et al., 2024). Priyabrata and Dhananjoy (2022) confirmed that product knowledge and awareness of organic products have a compelling association with consumers' purchasing behaviour. However, other studies found that consumers' purchase decisions are composite internal processes that depend on numerous levels of knowledge and awareness (Bazhan et al., 2023). Many consumers are not strongly committed to purchasing organic products but consume them because they are well informed and are concerned about the quality of and benefits derived from consuming such products (Fatha et al., 2024). Priyabrata and Dhananjoy (2022) highlight that the consumer's attitudes towards the purchasing of organic products are stimulated by their health concerns and ecological values, which reveal that they are knowledgeable and aware of the uses of organic products. Various studies have established that there is a relationship between consumers' PPK and their attitudes towards the consumption of such products (Fatha et al., 2024; Priyabrata & Dhananjoy, 2022; Yildiz, 2022). Thus, this study hypothesises that:

H3: Perceived product knowledge has a positive and significant impact on the Millennial consumer's attitudes towards OPHPs.

H4: Perceived product knowledge has a positive and significant impact on the Millennial consumer's purchase intention of OPHPs.

3.3.3 Perceived product quality (PPQ)

PPQ is defined as "a consumer's judgement about the superiority or excellence of a product" (Zeithaml, 1998, p.3). Pahari et al. (2023) state that PPQ is the assessment of an individual's complete judgement, based on the extrinsic and intrinsic cues. This study is more interested in the intrinsic cues: "product-related attributes – such as price, brand name, and packaging – which are not part of the physical product, and intrinsic cues represent product-related attributes, such as ingredients, that cannot be manipulated without also altering the physical properties of the product" (Richardson et al., 1994, p.29). Various scholars consider PPQ to have the ability to prompt consumers' decisions towards purchasing organic products (Sulthana & Vasantha, 2020; Echchad & Ghaith, 2022; Sudaryanto et al., 2022). Based on this argument, the following are hypothesised:

H5: Perceived product quality has a positive and significant impact on the Millennial consumer's attitudes towards OPHPs.

H6: Perceived product quality has a positive and significant impact on the Millennial consumer's purchase intention of OPHPs.

3.3.4 Environmental concerns (EC)

Environmental protection is a global concern that indicates the level at which an individual is conscious of environmental problems and shows their desire to contribute towards solving them when an opportunity arises (Kamboj et al., 2023). EC is, consequently, one of the essential motivators that influence individuals' ecologically responsive behaviour towards green products, as it reveals their awareness and ability to deal with such problems (Kumar et al., 2023). Kumar et al. (2023) emphasises that environmental awareness prompts consumer perceptions when purchasing organic products, since individuals are increasingly paying more attention to environmental issues such as global warming. Numerous researchers state that there is a direct relationship between EC and attitudes, which also affects their willingness to purchase organic products (Kamboj et al., 2023; Tandon et al., 2020). This study, consequently, proposes that a relationship between EC and consumer attitude towards the purchase of OPHP does exist, and hypothesises the following:

H7: Environmental concerns have a positive and significant impact on the Millennial consumer's attitudes towards OPHPs.

H8: Environmental concerns have a positive and significant impact on the Millennial consumer's purchase intentions of OPHPs.

3.3.5 Attitudes towards organic personal healthcare products and purchase intention

Ajzen (1991) defines 'attitude' as the level at which individuals evaluate a given product or service. Attitudes can be favourable or unfavourable tendencies learned by an individual (Cachero-Martínez, 2020). Thus Fatha et al. (2023) emphasise that attitudes play a critical role in consumer behaviour as the main factor that affects consumers' purchasing decisions, which are connected to cognitive and affective systems. Taking from the TRA that was developed by Ajzen and Fishbein (1980) and Ajzen's (1985) TPB, both these theories assert that attitudes concerning behaviour are essential elements of the intention to execute a specific behaviour (Cachero-Martínez, 2020). The primary sense of these theories is built on the premise that, if individuals develop positive attitudes towards a product, they are more likely to purchase that product (Nayak et al., 2024). Various researchers such as Kamboj et al. (2023); Kumar et al. (2023) as well as Tandon et al. (2020), link positive attitudes to purchase intentions towards organic products, which are assumed to be the consumer's preference to purchase and consume such products instead of conventional products.

The literature reveals that intention is a relevant element to investigate in forecasting customer purchase behaviour (Eberle et al., 2022; Parashar et al., 2023). Purchase intentions are built on an exploration of consumers' behaviour, which emanates from their thoughts, feelings, or experiences (Kumar et al., 2023). Earlier studies on the purchase intention towards organic products established

that there is a positive relationship between the consumer's attitude and their purchase intentions (Kamboj et al., 2023; Shimul et al., 2021). Kamboj et al. (2023) found that with organic products, consumers' purchase intentions could be stimulated by a variety of factors that include product perceived quality, nutritional value and health benefits, product availability, and environmental factors. As a result, it would be reasonable to anticipate that the Millennial consumers' high perceptions of all these factors can lead to their improved purchase intention towards OPHPs. Moreover, should they have a high inclination to purchase OPHPs, they would most likely purchase such products as they show health and environmental concerns (Bósquez et al., 2023; Fatha et al., 2024). Therefore, based on this evidence, it is hypothesised that:

H9: Attitude towards OPHPs positively impacts the Millennial consumer's organic purchase intentions.

3.4 Ethics

Saunders et al. (2016) define 'ethics' as "standards of behaviour that guide one's conduct concerning the rights of those who become the subject of their work or are affected by it". This study kept to ethical standards and principles, which advocate respect for the study respondents' impartiality and protecting them from any form of harm (Gupta, 2011). Special consideration was given to the respondents' right to privacy, confidentiality, and anonymity. The study's respondents were informed at the beginning of the questionnaire about the purpose of the study, and they were given a consent form to complete prior taking part in the research in order to assure and remind them that their participation was voluntary and that they were free to withdraw from taking part at any stage of the data collection process. This study was authorised by the Vaal University of Technology's Faculty Research Ethics Committee (VUT FREC), following the ethical clearance procedures (ethical clearance no: FRECMS-03082022-119).

4. Research methodology

4.1 Research design and approach

The study adopted a cross-sectional convenience sampling technique, using a quantitative research design to investigate the causal relationships between the proposed study variables. As indicated earlier, OPHPs were chosen as the field of study owing to the large appetite for the consumption of such products, supported by the UN SDGs initiatives, which seek the sustainable consumption of resources and the demonstration of a concern for a healthy lifestyle, environmental well-being, and the eradication of global health epidemics and communicable diseases (Kretschmer & Kahl, 2021). The aim was to understand the Millennial consumer cohort's perceptions of the acceptance and use of OPHPs better, especially from an emerging market's perspective. The study's respondents were university students from the southern region of Gauteng province in South Africa.

4.2 Data collection and measuring instrument

A total of 320 questionnaires were disseminated to consumers of organic personal health care products in the towns of Vanderbijlpark and Vereeniging in the Gauteng province of South Africa. This province was selected on the basis of its convenient proximity to the researchers of this enquiry. Screening questions were included in the survey to ensure that the respondents were 18 years or older and were users of organic products. The study questionnaire was distributed in two forms: first, an online survey was employed using Google Forms; and second, a questionnaire was distributed by trained field workers to collect the data. The survey instrument was pre-tested with 50 respondents who met the research criteria as a pilot study; these respondents were not then included in the main survey. Adapting earlier established scales, this study used a questionnaire with eight major sections. Section A elicited the respondents' biographical information, and Section B extracted the respondents' answers relating to the proposed study constructs.

A five-point Likert scale, with '1' indicating 'strongly disagree' and '5' indicating 'strongly agree' (Sudaryanto et al., 2022) was used. Of the four items assessing PCE in Section C, two were adopted from Jaiswal and Kant (2018), and the other two from Lavuri et al. (2022). In Section D, PPK was measured using a four-item scale adapted from Sultana et al. (2022). In Section E, EC was measured on a five-item scale adapted from Mohowa (2021). In Section F, PQ was assessed using four different items, with three items adapted from Toni et al. (2017) and one from Sudaryanto et al. (2022). In Section G, attitude towards OPHPs was assessed using items adapted from Lupindo (2020). While in Section H, OPI towards organic products was measured using four items, two of which were adapted from Paul et al. (2016), one from Lavuri et al. (2022), and one from Toni et al. (2017).

4.3 Data analysis method

Smart PLS structural equation modelling was adopted to assess the data and to test the robustness of the proposed study model and its hypotheses (Echchad & Ghaith, 2022). Moscato (2023) asserts that researchers can use this approach for multivariate data analysis, as it can simultaneously handle multiple independent variables, and it can also address instances of unobservable latent variables. Using SPSS version 26.0 and AMOS version 26.0, reliability and validity tests of the study's variables were conducted to confirm the goodness-of-fit of the structural model.

5. Results and findings

5.1 Descriptive statistics

The study's respondents were aged between 18 and 39 years. A total of 305 properly completed questionnaires were analysed. The respondents were represented by 48.2 per cent (n=147) females and 46.9 per cent (n=143) males. Only five per cent (n=15) of the respondents chose not to disclose

their gender. The largest group of respondents was aged between 18 and 24 years old, constituting 74.4 per cent (n=227). The second-largest group was represented by 25- to 30-year-old respondents (21.6%; n=66). Only three per cent of the respondents were aged between 31 and 36 years (n=9). Last, the respondents aged between 37 and 40 years made up one per cent (n=3) of the sample. Most of the respondents were Africans (98%; n=300), followed by coloureds (2%; n=5). Table 1 presents the profile and biographical status of the respondents.

Table 1: Respondents' profile

Variable	Category	Frequency	Percentage (%)
Gender	Male	143	46.9
	Female	147	48.2
	Prefer not to say	15	4.9
Total		305	100
Age group	18-24	227	74.4
	25-30	66	21.6
	31-36	9	3.0
	37-40	3	1.0
Total		305	100
Race	African	300	98.4
	Coloured	5	1.6
	Asian	0	0
	White	0	0
Total		305	100
Province of origin	Gauteng	102	33.4
	KwaZulu-Natal	23	7.5
	Free State	23	7.5
	Eastern Cape	13	4.3
	Mpumalanga	24	7.9
	North-West	18	5.9
	Western Cape	11	3.6
	Limpopo	63	20.7
	Northern Cape	9	3.0
	International students	19	6.2

Total		305	100
Current level of study	Diploma	214	70.2
	Advanced Diploma	78	25.6
	Postgraduate	13	4.2
Total		305	100
Have you ever purchased OPHP	Yes	241	79.0
	No	64	21.0
Total		305	100
Type of personal health care product purchased	Skincare products	139	45.6
	Fragrances	56	18.4
	Toiletries	49	16.1
	Decorative	52	17.0
	Haircare	9	3.0
Total		305	100
Frequency of OPHP purchases	Once every 3 months	224	73.4
	Once every 6 months	81	26.6
Total		305	100
Source of income	Self-funded	95	31.1
	Company bursary	20	6.6
	NFSAS	190	62.3
Total		305	100

Source: Researcher's own compilation

5.2 Measurement model

This study assessed the convergent validity and discriminant validity of the measurement model. The results of both tests are shown in Table 1. The measurements applied to confirm convergent validity through confirmatory factor analysis (CFA) included factor loadings, composite reliability (CR), and average variance extracted (AVE). Convergent validity was verified by the AVE, which is only considered adequate when it is equal to or exceeds 0.5 (Hair et al., 2019). The overall goodness-of-fit was satisfactory (Bagozzi & Yi, 2012). The CR for each latent construct was above 0.70, and so reliability and convergent validity were confirmed (Fornell & Larcker, 1981). Table 2 presents the reliability, factor loadings, and convergent validity.

Table 2: Reliability, factor loadings, and convergent validity

Construct	Measurement items	FL	CA	CR	AVE
PCE	PCE 1 I am aware of environmental issues such as pollution and climate change	0.601	0.652	0.794	0.500
	PCE 2 When I buy products, I try to consider how my use of them will affect the environment	0.667			
	PCE 3 I can protect the environment by purchasing environmentally friendly products	0.845			
	PCE 4 I feel I can contribute to solving environmental problems	0.675			
PPK	PPK 1 I know more about organic personal healthcare products than my peers	0.633	0.764	0.851	0.591
	PPK 2 I know that I buy products and packages that are environmentally safe	0.766			
	PPK 3 I understand the symbols and phrases used on organic personal healthcare product packages	0.843			
	PPK 4 I know how to select products and packages that focus on reducing environmental pollution	0.816			
EC	EC 1 I am very concerned about the environment	0.697	0.795	0.859	0.549
	EC 2 I would be willing to reduce my consumption of non-organic products to help protect the environment	0.811			
	EC 3 Major government interventions (such as imposing tax levies on plastic bags) are necessary to protect the natural environment	0.721			
	EC 4 Major social changes are necessary to save the natural environment	0.690			
	EC 5 Anti-pollution laws should be enforced more strongly	0.779			
PPQ	PPQ 1 The quality of OPHPs is better than that of non-organic products	0.702	0.718	0.825	0.542
	PPQ 2 The positive image of OPHPs inspires me to buy organic personal healthcare products	0.747			
	PPQ 3 I believe OPHPs are of good quality because they are made from natural ingredients	0.752			
	PPQ 4 The use of OPHPs gives me greater confidence that I'm consuming a healthy product	0.742			
AOPHP	AOPHP 1 I feel that environmental protection is important when making a purchase decision	0.813	0.690	0.829	0.618
	AOPHP 2 I prefer to buy organic personal healthcare products compared to non-organic products	0.718			

Construct	Measurement items	FL	CA	CR	AVE
	AOPHCP 3 I believe that purchasing OPHPs is safe for the environment	0.823			
OPI	OPI 1 I intend to purchase OPHP in the future	0.838	0.742	0.853	0.660
	OPI 2 I am willing to pay more for OPHPs for environmental reasons	0.757			
	OPI 3 I would encourage friends and relatives to buy OPHPs	0.839			
Note: FL = Factor loading; CA = Cronbach's alpha; CR = Composite reliability; AVE = Average variance extracted					

Source: Researchers' own compilation

5.3 Structural equation modelling

Structural equation modelling (SEM) is a statistical analysis tool used to test cause-and-effect relationship models with latent variables (hypothetical constructs), and was applied to describe the relationships between the study's latent variables (Olejnik, 2021). The composite reliability values for the constructs ranged between 0.794 and 0.859. Cronbach's alpha for the entire construct ranged between 0.652 and 0.795, implying the satisfactory internal consistency of the measures. This suggested that an adequate level of construct validity was reached. Convergent validity was measured by AVE, and was only judged adequate when it was equivalent to or exceeded the 0.5 benchmark, confirming that each construct could explain more than half of the variance of its measuring items (Persaud & Schillo, 2017). The AVE of the construct items used for six of the factors shown in Table 3 was greater than 0.5 and greater than the minimum baseline, thus indicating that the constructs clarified most of the variances and errors in the data that were fewer than anticipated (Khan et al., 2022). Table 3 illustrates the convergent validity for all the study constructs, which were accordingly considered sufficient.

Table 3: Evaluation of the measurement model

Construct	Measurement items	IL	CA	CR	AVE
PCE	I am aware of environmental issues such as pollution and climate change	0.60	0.65	0.79	0.50
	When I buy products, I try to consider how my use of them will affect the environment	0.66			
	I can protect the environment by purchasing environmentally friendly products	0.84			
	I feel I can contribute to solving environmental problems	0.68			
PPK	I know more about organic personal care products than my peers	0.63	0.76	0.85	0.59
	I know that I buy products and packages that are environmentally safe	0.77			
	I understand the symbols and phrases used in OPHP packages	0.84			
	I know how to select products and packages that focus on reducing environmental pollution	0.82			
PPQ	The quality of organic personal care products is better than that of non-organic products.	0.70	0.72	0.83	0.54

	The positive image of organic products inspires me to buy OPHPs	0.75			
	I believe organic personal care products are of good quality because they are made from natural ingredients	0.75			
	The use of organic personal care products gives me greater confidence that I'm consuming a healthy product	0.74			
EC	I am very concerned about the environment	0.69	0.79	0.85	0.55
	I would be willing to reduce my consumption of non-organic products to help protect the environment	0.81			
	Major government interventions (such as imposing tax levies on plastic bags) are necessary to protect the natural environment	0.72			
	Major social changes are necessary to save the natural environment	0.70			
	Anti-pollution laws should be enforced more strongly	0.78			
AOPHP	I feel that environmental protection is important when making a purchase decision	0.81	0.69	0.83	0.62
	I prefer to buy organic personal care products compared to non-organic products	0.72			
	I believe that purchasing OPHPs is safe for the environment	0.82			
OPI	I intend to purchase OPHPs in the future	0.84	0.74	0.85	0.66
	I am willing to pay out more for OPHPs for environmental reasons	0.76			
	I would encourage friends and relatives to buy OPHPs	0.84			

Key: IL = Item loading, CA = Cronbach's alpha, CR = Composite reliability
Source: Researchers' own compilation

After confirming the validity of the measurement, the structural model was examined to determine the significance of the proposed hypotheses and to explain the variance in the dependent variable, using the significant independent variables. As a first step in assessing the structural model, collinearity among the independent constructs in the model was analysed. Table 4 presents the results of the path coefficients and t-statistics of this study.

Table 4: Path coefficients and t-statistics

Hypothesis	Path coefficient (β)	Standard deviation (STDEV)	T-statistics (| O/STDEV|)	P-values	Decision
H1= PCE→AOPHP	0.046	0.069	0.667	0.505	Rejected
H2= PCE→OPI	-0.070	0.061	1.151	0.250	Rejected
H3= PPQ→AOPHP	0.324	0.067	4.830	0.000	Accepted
H4= PPQ→OPI	0.173	0.067	2.575	0.010	Accepted
H5= PPK→AOPHP	0.228	0.081	2.800	0.005	Accepted
H6= PPK→AOPHP	0.114	0.067	1.703	0.089	Rejected
H7= EC→AOPHP	0.282	0.059	4.777	0.000	Accepted
H8= EC→OPI	0.203	0.065	3.130	0.002	Accepted
H9= AOPHP→OPI	0.391	0.079	4.946	0.000	Accepted

T-value >1.96; P-value < 0.005;<0.001
Source: Researchers' own compilation

Having ruled out the threat of collinearity, the significance of the path coefficients and the R2 of the predicted constructs were examined. Figure 2 illustrates the SmartPLS results for the path estimates with t-values.

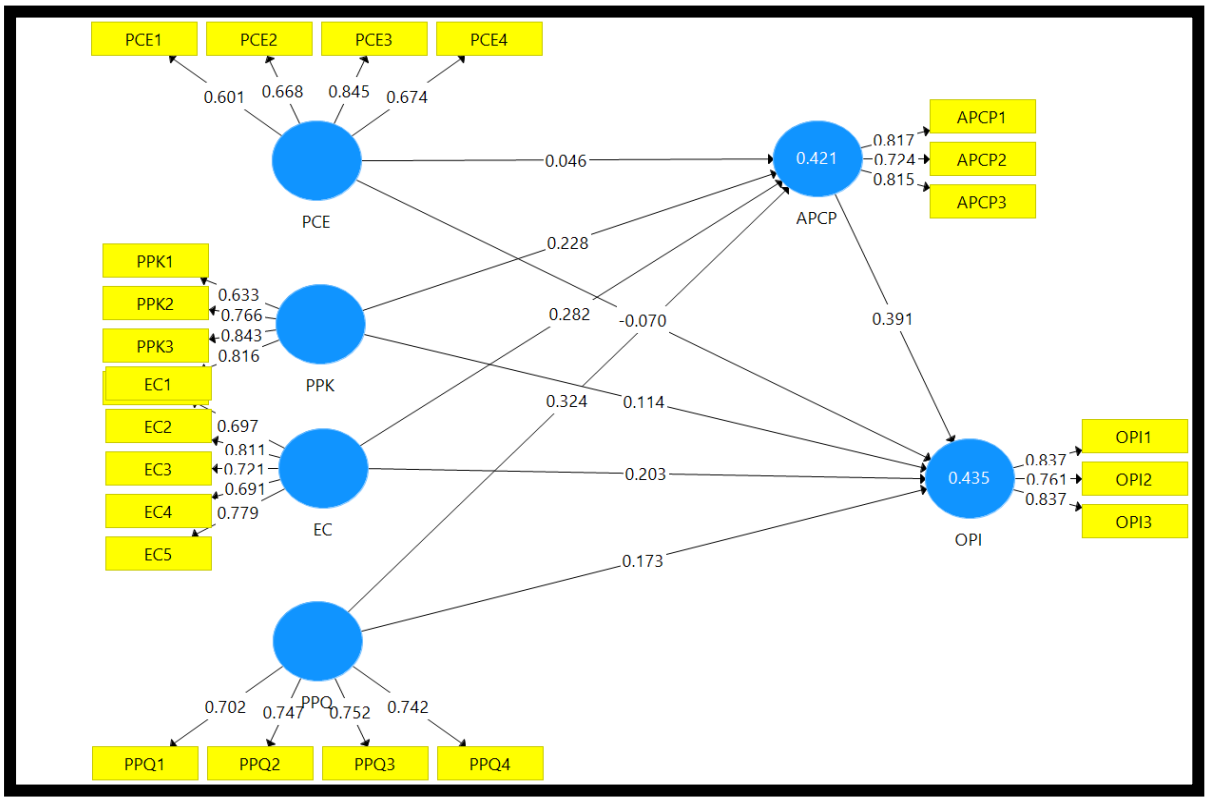

Figure 2: SmartPLS results for path estimates with t-values

Source: Researchers' own compilation

Hypothesis 1 proposed a significant and positive relationship between PCE and AOPHP. The results (β=0.046, T=0.667, p>0.001) revealed that no significant association occurred between the two constructs, and therefore Hypothesis 1 was rejected. Hypothesis 2 proposed that a positive and significant association existed between PCE and OPI. The results (β=-0.070, T=1.151, p=0.250) revealed that an insignificant relationship between the two constructs was found. Thus Hypothesis 2 was also rejected. Hypothesis 3 proposed that there was a significant positive relationship between PPQ and AOPHP. The results (β=0.324, T=4.830, p<0.05) confirmed that a significant relationship between the two constructs existed. Hypothesis 3 was accordingly accepted. Hypothesis 4 projected that there was a significant and positive relationship between PPQ and OPI. The result (β=0.173, T=2.575, p<0.05) showed that a significant and positive association between the two constructs did exist. Hypothesis 4 was accordingly accepted. Hypothesis 5 proposed a significant and positive relationship between PPK and AOPHP. The beta value was β=0.228, T=2.800, and p<0.05, supporting the fact that a significant and positive relationship between the two constructs did exist, and so Hypothesis 5 was also accepted. Hypothesis 6 proposed that there was a significant and positive relationship between PPK and OPI. The results (β=0.114, T=1.703, p>0.05) showed that

there was an insignificant association between the two constructs. Hypothesis 6 was thus rejected. Hypothesis 7 proposed that there was a significant and positive relationship between EC and AOPHCP. The results (β=0.282, T=4.7777, p<0.000) confirmed that a significant positive relationship between the two constructs did exist, and so Hypothesis 7 was accepted. Hypothesis 8 proposed that EC was positively related to OPI. The results (β=0.203, T=3.130, p<0.05) showed a significant relationship between the two constructs. Hypothesis 8 was accordingly accepted. Hypothesis 9 proposed that the consumers' AOPHCP was positively associated with OPI. The results (β=0.391, T=4.946, p<0.01) supported a significant and positive relationship between the two constructs, and thus Hypothesis 9 was accepted. The discriminant validity results are shown in Table 5.

Table 5: Discriminant validity

Construct	AOPHP	EC	OPI	PCE	PPK	PPQ
AOPHP	**0.786**					
EC	0.490	**0.741**				
OPI	0.603	0.462	**0.812**			
PCE	0.359	0.434	0.255	**0.703**		
PPK	0.428	0.250	0.354	0.483	**0.769**	
PPQ	0.523	0.401	0.480	0.245	0.331	**0.736**

Source: Researchers' own compilation

Moreover, discriminant validity was ensured based on inter-construct correlations and its comparison with square root of AVEs. The results revealed that factors influencing individuals' attitude towards OPHP had a satisfactory fit index. The reliability analysis showed the levels of the scales used for the study constructs to be sufficiently high. Hence, data were found to fit for discriminant validity (Fornell & Larcker, 1981).

6. Discussion and managerial implications

The study findings are congruent with those of earlier investigations conducted in developed markets, that confirm organic products to be steadily related to health, environmental, and social concerns. Many consumers who have greater levels of knowledge about the benefits of organic products perceive them to be valuable (Gonçalves et al., 2016). This could have a number of consequences for marketing managers, who should be making strategic and well-informed decisions for the sustained growth of their businesses. Accordingly, comprehensive insights for marketing practitioners and policymakers are provided into an in-depth understanding of drivers of and hindrances to their

consumers' OPI towards OPHPs. The study's findings could assist marketing practitioners in a number of ways including:

Employing marketing initiatives such as a 'green impact campaign', green advertising, and eco-labeling to enhance environmental awareness, with an emphasis on consumers' unique efforts to eradicate the negative influences towards the global environment. Also, the study advocates that the focus be not only on imposing taxes on the use of conventional products such as plastic, but also on how consumers could contribute to the preservation of a healthy environment and the entire planet. Furthermore, more campaigns that emphasise the environment's severe deterioration caused by the excessive use of conventional products are encouraged, so that people unlearn the negative attitude towards organic products and environmental well-being. Thus, it is suggested that marketing practitioners and policymakers, in conjunction with the South African media houses, must promote organic agribusiness, to attract more users of organic products, and guidance on its benefits to enhance consumer purchase intentions towards OPHPs.

As to how the UN SDGs Agenda 2063 should be supported – SDG 3 and SDG 12 can be achieved through sustainable production and awareness of organic products for continuous consumption and preservation of the environment. Accordingly, improved communication of the UN's SDGs and Agenda 2063 vision is encouraged to reinforce calls made by many researchers such as Ndizera and Muzee (2018), who echo that the objectives and probable outcomes of the UN SDG initiatives and Agenda 2063 must be clearly communicated and shared as they are long term in nature. Education on the benefits of organic products relative to conversional products is required to cultivate a compelling and sustainable consumer organic product demand pattern.

Accordingly, the promotion of sustainable production and consumption of organic products should be seen as very important towards addressing any misconceptions that people might be having about the uses and benefits of organic products and its effects to the environment. Accordingly, this study supports growth of knowledge and better understanding of the Millennial consumer cohort and organic product consumerism, especially from an emerging South African cosmetics industry that still needs further exploration. This enquiry, consequently, adds to the existing body of consumer behaviour and marketing knowledge with enhanced understanding of the AOPHPs of Millennial consumers from the southern region of Gauteng province.

7. Conclusions, limitations, and future research

The study found, through empirical investigations, that PCE, PPK, PPQ, and EC are key drivers of Millennial consumers' attitudes to and their purchasing intention towards OPHPs. Of the factors that were studied, PPK stood out as the leading factor in stimulating consumers' attitudes and purchase

intentions towards OPHP. This finding is in line with that of Wang et al. (2019), that the moderating role of knowledge had a significant influence on consumers' purchase intentions towards organic products. Given that modern consumers globally are increasingly developing an appetite for health consciousness and have concerns about the quality of what they consume, the accuracy of the information that service providers share with customers should be accurate, as recommended by Chang and Wildt (1994). A failure by service providers to do so could negatively impact their customers' patronage behaviour. The need to develop new and perceptive marketing strategies to entice potential customers to purchase organic products is one highlight of this study.

Marketing practitioners and policymakers could use this study's findings as a guide to improve their promotion of organic products as they respond to consumers' desires that would be beneficial to their health and to environmental well-being. This study provides evidence that PCE, PPK, and PPQ had an impact on consumers' attitudes and purchase intention towards OPHPs. To promote successfully the benefits of organic products to health and environmental matters, and to encourage the greater use of those products, marketing practitioners and policymakers should promote a 'green impact campaign', green advertising, and eco-labeling with an emphasis on efforts to mitigate environmental concerns. This study, therefore, contributes new insights to the body of knowledge, and could help marketing practitioners and policymakers to devise and carry out astute marketing strategies to promote the continued consumption of organic products in South Africa's emerging market.

There are various limitations to this study. A basic quantitative research approach was employed that provided reasonable responses from the respondents, and the data were collected using a structured self-administered questionnaire. A mixed-method approach might have given the respondents more room to express their views about what influences their attitudes to purchasing OPHPs. Despite using a representative sample, the study could have been enhanced by involving respondents from other provinces of South Africa and by generalising its findings to a broader context. Furthermore, the study focused only on Millennial university student cohort from the southern region of Gauteng province; the inclusion of other consumer groups from other provinces could have provided differentiated and more representative outcomes.

Accordingly, future studies can (a) investigate the role that cultural factors play in nudging the consumers' attitudes and behaviour towards OPHP products across different provinces of South Africa? (b) examine other methods for spreading knowledge related to Agenda 2063 and SDGs initiatives to ensure proper dissemination of information and understanding among consumers in other provinces of South Africa. (c) Perhaps a longitudinal study can be used in the future to establish whether there is a causal correlation between the study's constructs to confirm such causal connections. (d) replicating this study in other provinces or African countries is recommended to examine other significant factors influencing OPHPs versus consumers' patronage behaviour.

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