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MARKETING | REVIEW ARTICLE

Consumer behavior research on traditional foods in Africa: A scoping review

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Abstract: The aim of this scoping review was to identify and consolidate existing empirical evidence on consumer behavior research regarding traditional foods in Africa, with a view to contributing to the advancement of further research in the area. More specifically, the study sought to map the extent of available evidence, establish the nature of research topics and identify theories and models upon which identified studies were based. While results showed a general scarcity of empirical studies on consumer behavior towards traditional foods in Africa, the last five years have recorded a sustained increase in research. Nigeria, South Africa and Kenya are the main contributors to this research. Most of the research focused on sensory attributes of traditional foods and how they were perceived, evaluated and liked/disliked by consumers. There was also significant research exploring cognitive aspects underlying consumer behavior. However, the use of established theory or models in framing existing research was minimal.

Subjects: Consumer Psychology; Consumer Behaviour; Food and Beverage Management; Consumer Behaviour

Keywords: Traditional food; Africa; consumer behavior; scoping review

1. Introduction

Literature has established that consumption of traditional foods has several benefits. These benefits include improved food security and nutritional status for consumers (Banerjee & Maitra, 2020; McCartan et al., 2020), secure income and livelihoods for farmers (Phiri et al., 2019), more environmentally sustainable agriculture (Akinola et al., 2020), and promotion of sustainable food systems (Akinola et al., 2020). Traditional foods are foods that have been consumed over many centuries (Akinola et al., 2020) and are linked to a particular territory and a people's traditions (Jordana, 2000). Traditional foods encompass cereals, fruits, leafy and root vegetables, and herbaceous plants that may generally be classified as "domesticated/semi-domesticated" foods or "wild" foods (Akinola et al., 2020). Examples of conventional traditional foods are sorghum, cowpeas, and sweet potatoes, while examples of the less conventional foods include amaranth, pumpkin leaves, and calabash. Traditional foods are particularly important for drought-prone

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regions such as Africa, which has high levels of food and nutritional insecurity as well as the highest undernourishment in the world (Rampa et al., 2020).

For instance, Zimbabwe, a southern African country, has experienced severe drought-induced famines in the last two decades (Chigavazira & Zandamela, 2021). These droughts have worsened the food and nutrition situation for the country (Ngwenya, 2021). Similarly, South African rural communities suffer from poor nutritional status and poverty (Omotayo et al., 2021). Traditional foods can significantly contribute to the alleviation of hunger and malnutrition (Van der Hoeven et al., 2013).

Despite the potential benefits associated with traditional foods, there is evidence of a decline in their consumption in Africa (Akinola et al., 2020; Hlongwane et al., 2021; Van der Hoeven et al., 2013). In order to reverse the negative consumption trends of traditional food consumption in Africa, there is a need for an understanding of consumer related aspects of traditional food consumption. Since individuals are the ultimate buyers of traditional foods, it is important to explore attendant consumer behavior aspects related to the purchase of traditional foods (Concari et al., 2020).

A focus on individual consumers is consistent with Chen and Antonelli's (2020) proposition that consumers and their choices should be placed at the center of academic research aimed at investigating and finding solutions for human health and other challenges. Similarly, Moyo et al. (2021) posit that consumer-oriented research on traditional foods could contribute to the growth of consumer demand for, and consumption of, traditional foods. Such a growth in demand and consumption could lead to the possibility of improved public health, reduced rural poverty, enhanced food and nutrition security, and strengthening of rural livelihoods.

A recent systematic literature review study by García-Barrón et al. (2021) established that consumer-oriented research on traditional foods is sparse in Africa as it has mostly been conducted in European countries such as Italy, Spain, and France. Only limited consumer-oriented research on traditional foods has been conducted in Africa, despite the rich cultural diversity of traditional foods on the African continent (García-Barrón et al., 2021). The fact that García-Barrón et al. (2021) review of the literature on consumer perspectives relating to traditional food consumption is the only one that covers Africa, is testament to the scarcity of systematic reviews on this subject in Africa.

This scoping review is conducted to identify and consolidate existing empirical evidence on consumer behavior towards traditional foods in Africa. Based on extant literature assessment, there has not been any previous scoping review of African research on consumer behavior towards traditional foods. This scoping review will thus contribute to the advancement of research on consumer behavior towards traditional food consumption in Africa and could be a precursor to, and foundation for, comprehensive systematic reviews with narrower questions (Rosca et al., 2021). This scoping review will be achieved by mapping the range and nature of available evidence.

1.1. Objectives of the study

This scoping review assessed literature on consumer behavior towards traditional foods in an African context. The following research objectives were formulated:

RO_1: To map the extent of available research evidence on consumer behavior towards traditional foods in Africa;

RO_2: To establish the nature of consumer behavior research topics conducted in relation to traditional foods in Africa; and

RO_3: To identify theories and models relied upon by researchers in approaching their research on consumer behavior towards traditional foods in Africa.

2. Methods

In order to achieve the above research objectives, decisions were made about the protocol to be used, eligibility criteria, information search, selection, and data charting. These decisions are further explained below.

2.1. Protocol

Arksey and O'Malley's (2005) literature review protocol was used in this study. This protocol has enjoyed widespread application in several food-related studies (Carrillo-Álvarez et al., 2021; Palamenghi et al., 2022; Schmidt et al., 2020). The protocol comprises the following five steps: (i) identification of the research question(s), (ii) identification of relevant studies, (iii) study selection, (iv) charting or mapping of the data, and (v) collation, summarizing, and reporting results. The reporting of the scoping review was done in accordance with the Preferred Reporting Items for Systematic reviews and Meta-Analyses extension for Scoping Review (PRISMA-ScR) (Tricco et al., 2018).

PRISMA-ScR reporting methodology was developed by a 24-member panel of research experts (Tricco et al., 2018). The use of PRISMA-ScR methodology assists in the avoidance of research biases or missing essential information (Concari et al., 2020). It also improves the reliability and trustworthiness of a review study, leading to consistent and legitimate analysis and consequent deductions made by the study (Concari et al., 2020). PRISMA-ScR methodology has also received widespread application in numerous studies (Carrillo-Álvarez et al., 2021; Rosca et al., 2021; Schmidt et al., 2020).

2.2. Eligibility criteria

Rules for including studies in the synthesis were formulated. Firstly, only research focusing on consumer behavior towards traditional food was eligible for inclusion. This criterion enabled this study to fill the identified knowledge gap. Secondly, only studies published between 2000 and 2021 were selected. Recent studies will normally have been published in the last 10 years (Concari et al., 2020). However, this period was extended to 21 years in order to capture more evidence since the area of interest has not been extensively and rigorously reviewed. Furthermore, only studies published in English were included in the synthesis. This was done for practical reasons since the cost and time involved in translating non-English literature could not be accommodated in this study (Arksey & O'Malley, 2005). Another criterion was that eligible studies needed to be empirical and not theoretical. The fifth criterion was that qualifying studies needed to have been conducted in Africa as this was the geographic scope of the study.

2.3. Information sources

Arksey and O'Malley (2005) accentuate the importance of identifying all relevant literature in a scoping review if the desired depth and breadth of results is to be achieved. To attain this objective, two bibliographic databases were searched, namely Scopus and Web of Science (WoS) databases. Two electronic databases were searched to mitigate the fact that there is no single database that provides full coverage of a selected topic (Biesbroek et al., 2013 in Concari et al. (2020). Web of Science and Scopus are generally accepted as the most comprehensive databases (Pranckutė, 2021) and are the most widely used for bibliometric analysis (Singh et al., 2021). Scopus is the largest database of abstracts and citations of peer-reviewed publications that encompasses journals, conference proceedings, and books (Hoek et al., 2021). This database has enjoyed extensive application in similar studies (Akinola et al., 2020; Concari et al., 2020; García-Barrón et al., 2021; Mabhaudhi et al., 2018; Martinho, 2020; Román et al., 2017; Rosca et al., 2021; Singh et al., 2021). Web of Science is a multidisciplinary bibliographic electronic database that has also been applied extensively in similar studies (Concari et al., 2020; Dangi et al., 2020; García-Barrón et al., 2021; Román et al., 2017; Rosca et al., 2021; Rukasha et al., 2021; Zhuang et al., 2021)

2.4. Search

The main search objective was to find articles on "consumer behavior towards traditional foods." The main keywords were: consumer, behavior, traditional, and food. The search term thus comprised four keywords. Each keyword was treated as a "group." The first objective of the search strategy was to combine these groups (keywords) to resemble the desired output, namely "consumer behavior towards traditional foods." In order to obtain more results, synonyms of keywords were also used in the search.

For instance, the following synonyms were used to describe "traditional": ethnic, heritage, native, indigenous, and tribal. The following synonyms were used to describe "food": grain, crop, staple, vegetable, meat, plant, and drink. The following synonyms were used to describe possible elements of consumer behavior: attitude, purchase, eat, perception, preference, choice, habit, and willingness to pay. Similarly, the word "customer" was used as an alternative to "consumer." In light of the above, Boolean operators were used in order to increase the number of search-term permutations (Abu Hatab et al., 2021). The Boolean operator "OR" was used for combining synonyms within each group, while the Boolean operator "AND" was used to combine search terms between groups. Table 1 shows part of the search query with Boolean operators that was used for the SCOPUS database.

Since consumer behavior is an interdisciplinary field with roots in philosophy, psychology, sociology, anthropology, etc. (Nair et al., 2014), relevant subject areas that were included in the search were Economics and Econometrics, Arts and Humanities, and Business and Social Sciences. As shown in Table 1, additional limiters for the search query included time frame (only papers published between 2000 and 2021), document type (only journal articles and conference proceedings) and country (only African countries).

2.5. Selection of sources of evidence

After running the search, the resulting list of candidate sources of evidence (or records) was assessed for compliance with inclusion and exclusion criteria, beginning with the title of the article. All sources that had a clearly out-of-topic or out-of-context title were removed. In spite of having set geographic limiters, there were a few sources of evidence that were for research conducted outside Africa. Similarly, there were some papers that were not related to traditional food. These papers were also discarded. The next step was to assess the abstracts of remaining sources of evidence, leading to the final elimination of all irrelevant sources. The full text was consulted in instances where the abstract lacked adequate information required for a screening decision.

Table 1. Search queries for the Scopus and Web of Sciences database search

Database	Query
SCOPUS	(heritage OR traditional OR native OR indigenous OR ethnic OR trib*) AND (food* OR grain* OR crop* OR staple OR vegetable* OR meat* OR plant* OR drink*) AND (consum* OR customer*) AND (behaviour OR attitude* OR purchase OR eat OR perception* OR preference OR choice OR habit* OR willingness AND to AND pay)
	Timespan = 2000 until 31 December 2021; Language = English; Types of documents = Article OR Proceedings; Publication stage = final; Country = limited to African countries; Subject area = Economics and econometrics, Arts and humanities; Business, Social Sciences;

Source: Author's creation

2.6. Data charting process and data items

The data charting form (abstraction tool) was jointly developed by authors based on their assessment of the information required to answer the research questions. Charting was then conducted by extracting and tabulating the desired attributes of interest from each article (Arksey & O'Malley, 2005). The type of information captured in the charting form was updated in an iterative process as authors became more familiar with the literature at hand. Some of the collected information included the following: Bibliographic data (authors, year published, article title), Aspect of consumer behavior researched (attitudes, knowledge/awareness, acceptability, consumption, perception, etc.) and other fundamental theoretical data (aim, theoretical framework, major outcomes).

2.7. Synthesis of results

Information was grouped and analyzed according to the number of papers published per year, geographic locations in which studies were conducted, areas of consumer behavior researched, and the referenced theoretical models or frameworks relied upon by the researchers. Results of the synthesis were presented in figures, narrative and tabular forms as appropriate. This type of analysis allows for a high-level portrayal of dominant areas of research; quantity, nature and characteristics of empirical research; and identification of current research interest, which in turn could help identify areas with significant research gaps in the evidence base (Arksey & O'Malley, 2005).

3. Results

The following section presents results obtained from the selection, charting, and synthesis processes discussed above.

3.1. Selection of sources of evidence

The initial search produced 405 results from the SCOPUS database and 538 results from the Web of Science database, giving a total of 943 candidate articles. These candidate articles were exported into a comma separated values (csv) document. The candidate articles were screened by removing all papers that were not relevant to the study based on a review of the title, abstract, and keywords of each record. Where relevance was difficult to determine from the title, abstract, and keywords, the full text of the paper was consulted (Concari et al., 2020).

This screening process, in which the inclusion and exclusion criteria were applied, resulted in the selection of 14 records from the SCOPUS database and 20 records from the WoS database search results. As shown in Figure 1, the selected articles were combined into a single list which was further reduced to 33 records after removing one duplicate record. The remaining 33 records were then subjected to full text review, charting and synthesis.

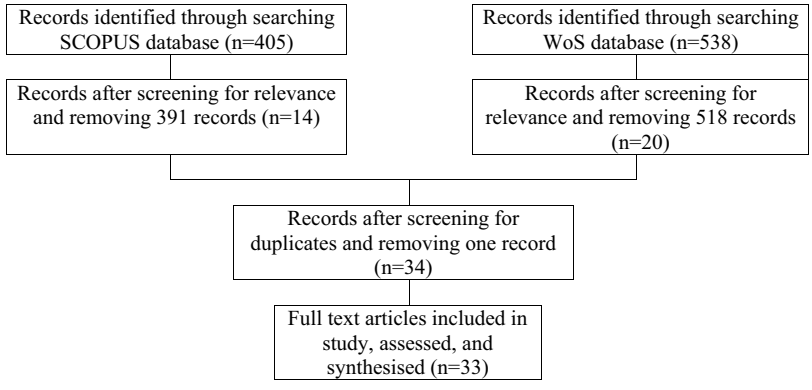

Figure 1. Prisma flow diagram (source: Author's creation).

3.2. Characteristics of sources of evidence and results

Several data characteristics were charted for each of the 33 sources of evidence retained for the study. These data characteristics included authors of publication, year of publication, article title, publication/journal title, consumer behavior thematic area researched, research aim, theoretical lens of the study, major findings, country, and food context.

3.3. Synthesis of results

The synthesis of results has been grouped and presented under appropriate objectives of the study.

3.3.1. RO_1: to map the extent of available evidence on consumer behavior towards traditional foods in Africa

(i) Volume of published literature

Over a period of 21 years (2000–2021), there has been a total of 33 published empirical studies in the area of consumer behavior towards traditional foods in Africa. Figure 2 shows that prior to 2016, research in the area of consumer behavior towards traditional foods was sporadic. With the exception of 2013, all other years prior to 2016 either had one relevant publication or none. Concari et al. (2020) state that a publication rate of less than two articles per annum demonstrates a low interest in a research area.

From 2016, research in the area has been on a sustained rise as shown by the increasing number of publications per year from two in 2016 to seven in 2021. It means that 60.61% (20) of the studies were published in the last four years of the review period (2018–2021). This latter trend demonstrates a growing interest in the field within the last five years. This growing interest is in line with the growing global interest on affairs related to sustainable development (Concari et al., 2020).

(ii) Geographic distribution of research sites

The 33 studies identified in this scoping literature review were conducted in 14 African countries. Each of the 33 identified studies was a single-country study except for the one by Udomkun et al. (2021), which was a comparative study between Cameroon and Nigeria. As a result, Udomkun et al.'s (2022) study was counted twice (once for Cameroon and once for Nigeria) resulting in the frequency count of studies for all countries adding up to 34 instead of 33.

As shown in Figure 3, Nigeria, South Africa, and Kenya are the leading countries in which research on consumer behavior towards traditional foods has been conducted. These three countries jointly account for 60.61% (20) of the total studies conducted in Africa between 2000 and 2021. This demonstrates a concentration of research in Nigeria, South Africa, and Kenya.

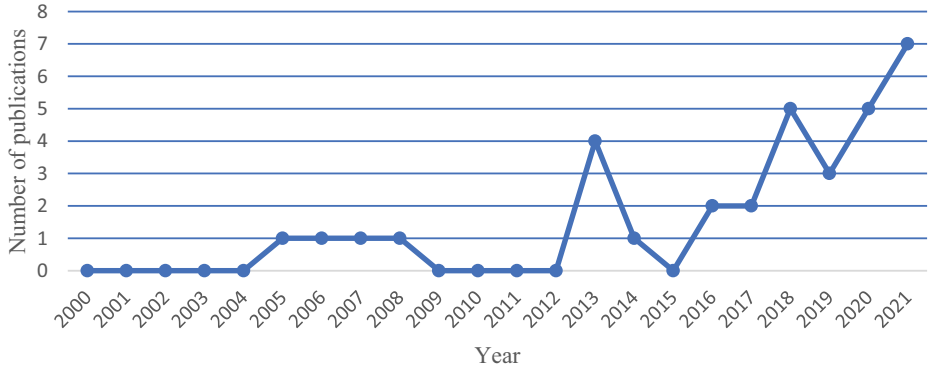

Figure 2. Number of publications per year (source: Author's creation).

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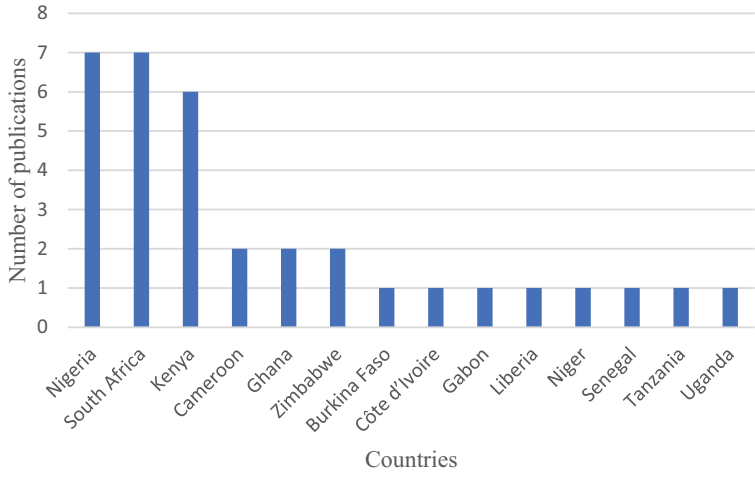

Figure 3. Number of publications per country (source: Author's creation).

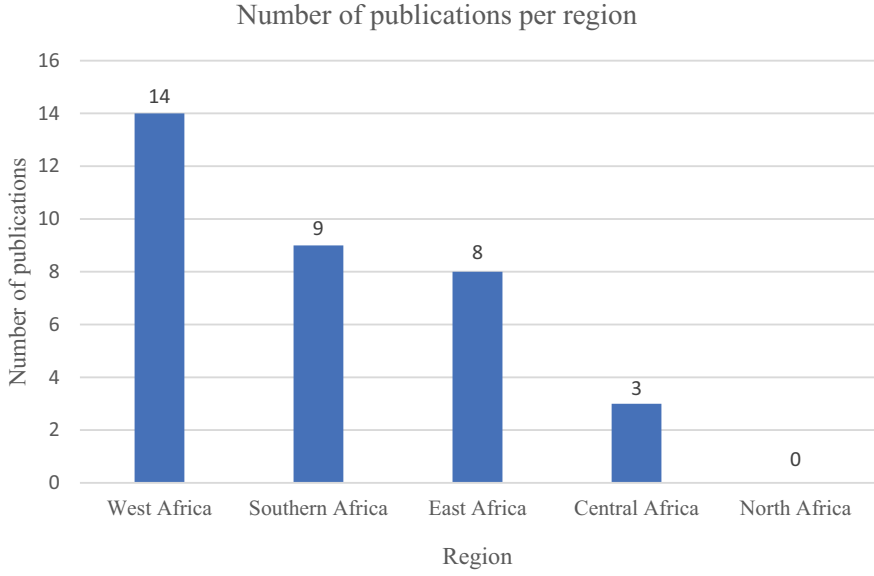

Figure 4. Number of publications per region (source: Author's creation).

The geographic spread of available literature across the five African sub-region was analyzed. The five African sub-regions are: west Africa, southern Africa, east Africa, central Africa, and north Africa. Figure 4 below shows that west Africa had the highest number of studies (14) conducted within its member states, followed by southern Africa (9), east Africa (8), central Africa (3), and north Africa (0). It is, however, important to note that in west Africa, half of the 14 articles were contributed by Nigeria. Ghana contributed two papers while the remaining five member states contributed one each. This confirms the dominance of Nigeria in researching consumer behavior towards traditional foods. In total, seven west African countries contributed to academic output from the region.

The distribution of research among member states is more skewed in southern Africa where South Africa contributed seven out of the nine studies conducted in the sub-region. The remaining two papers both came from Zimbabwe, meaning that only two southern African countries conducted research on consumer behavior towards traditional food. This compares very poorly to the seven countries from west Africa.

East Africa was dominated by Kenya that contributed six out of the eight articles from the region. Uganda and Tanzania contributed one each. Like southern Africa, East Africa has few countries conducting research in consumer behavior towards traditional foods. In central Africa, only two countries conducted research in consumer behavior towards traditional food, namely Cameroon which contributed two of the three articles and Gabon, which contributed one. No research evidence was identified in north Africa.

The emerging picture reveals that west Africa has demonstrated the greatest interest and taken leadership in research on consumer behavior towards traditional foods in Africa. South Africa and Kenya are the only other locations outside west Africa that have significant research activity on consumer behavior research towards traditional foods.

3.3.2. RO_2: to establish the nature of consumer behavior research topics conducted in relation to traditional food consumption in Africa

(i) Scope of consumer behavior thematic areas investigated

Twelve thematic areas of consumer behavior research were identified in this scoping review. These thematic areas are shown in Table 2. Consumer acceptance of traditional foods and consumer perceptions were the most frequently researched themes as they each appeared in seven of the 33 selected papers.

The least frequently researched themes are consumer involvement and identity formation. It was noted that in most instances, research on "consumer acceptance", "consumer perception", "consumer preference" and sensory evaluation, which jointly accounted for 59.52% of investigated research themes, related to sensory attributes of traditional foods. This demonstrates that most research activities have predominantly focused on investigating taste, smell, texture, and color (visual presentation) of traditional foods.

Attempts to understand cognitive processes underlying consumer decision making regarding traditional foods are also significant. However, such research is less prevalent as it accounts for 33.33% of researched consumer behavior themes such as willingness to pay (4), consumer awareness (3), consumer attitudes (3), identity formation (1), consumer involvement (1), and behavior intention (2).

A radar chart plotted for Table 2 confirms a heavily skewed coverage of research themes as shown in Figure 5 below. Available literature is dominated by three themes, namely acceptance of traditional foods (17.5%), consumer perceptions (17.5%), and consumer preferences (15.0%). These three thematic research areas account for 47.63% of available empirical studies that were identified in this scoping review.

3.3.3. RO_3: to identify theories and models relied upon by researchers in approaching their research on consumer behavior towards traditional foods in Africa

(i) Scope of reference theories

Most studies (84.85%) (see Table 3) did not rely on any reference theory in formulating an approach to their investigations. Rather, they relied on common literature about concepts of interest. Only five studies mentioned specific theories that were relied upon in identifying constructs. The low reliance on consumer behavior theories to frame research in the area could be explained by the fact that most of the research could be emanating from outside the domain of consumer behavior or business in general such as biological sciences (Afolabi et al., 2020), crop science (Bechoff et al., 2018), nutrition and pediatrics (Coley et al., 2020), and agriculture and food science (de Beer et al., 2016). Most of the research, by virtue of emanating from disciplines outside marketing or consumer behavior, has not benefited from established consumer behavior theory.

Table 2. Consumer behavior thematic areas investigated

	Thematic area of consumer behaviour research	Description	Author(s) and year	Frequency
1	Consumer acceptance of traditional foods (TF)	Acceptability (pleasantness and likeability) of traditional food.	Afolabi et al., 2020; Bechoff et al., 2018; de Beer et al., 2016; Coley et al., 2020; Hama-Ba et al., 2019; Van der Hoeven et al. 2013; Jumah et al., 2008	7
2	Consumer perceptions	Perception can be described as the ability to recognize and identify the existence of all kinds of stimuli and then evaluate and give meanings to them	Anoliefo et al., 2020; Bechoff et al., 2018; Cloete and Idsardi, 2013; Gewa et al., 2019; Govender et al., 2019; Marumo and Mabuza, 2018; Weinberger and Swai, 2006	7
3	Consumer preference	Choice between alternatives	Agúndez et al., 2018; Alemu et al., 2017; Amuquandoh and Asafo-Adjei, 2013; Anetoh et al., 2020; Nindjin et al., 2007; Otieno and Nyikal, 2017	6
4	Factors affecting behaviour towards TF	Motives and determinants for consumption	Manditsera et al., 2018; Marumo and Mabuza, 2018; Raaijmakers et al., 2018; Wilkie et al., 2005	4
5	Willingness to pay	Preparedness to pay a premium for a product containing a particular attribute	Alemu et al., 2017; Chelang'a et al., 2013; De Groote et al., 2021; Omotayo et al. 2021	4
6	Consumer attitudes	Positive and negative beliefs about a product or its attributes	Onoja et al., 2021; Pambo et al. 2016; Weinberger and Swai, 2006	3
7	Consumer awareness	Possession of information about an object of interest	Hlongwane et al. 2021; Van der Hoeven et al. 2013; Kekeunou et al., 2020	3
8	Consumption behaviour/practices	Dietary consumption patterns	Gewa et al., 2019; Weinberger and Swai, 2006	2
9	Sensory evaluation	Positive or negative evaluation of food sensory attributes	Anetoh et al., 2020; Lutomia et al., 2021	2
10	Consumer purchase intentions/decision	Psychological disposition to purchase	Anetoh et al., 2020; Lutomia et al., 2021	2

(*Continued*)

Table2. (*Continued*)

	Thematic area of consumer behaviour research	Description	Author(s) and year	Frequency
11	Consumer behaviour involvement	A proxy for interest in a particular subject or object, which is positively related to likelihood to perform a desired action	Tendani et al. 2021	1
12	Identity formation	Mental self-image	Amone, 2017	1
	TOTAL			42

Source: Author's creation

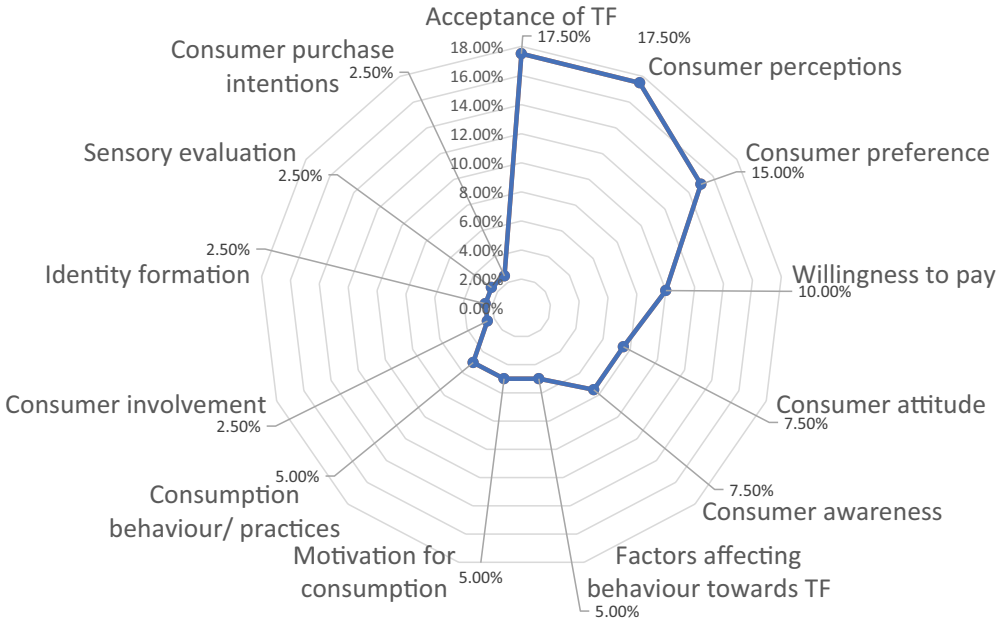

Figure 5. Consumer behavior thematic areas investigated (source: Author's creation).

Table 3. Utilization of reference theory in reviewed studies

Presence of reference theory	Number of papers	Percentage
Studies with no reference theories	28	84.85%
Studies with reference theories	5	15.15%
Total	33	100.00%

Source: Author's creation

Table 4 shows that 11 theories are referenced in five papers. Of the 11, only the Theory of Planned Behavior appears in more than one study (Omotayo et al., 2021; Pambo et al., 2016). The other 10 theories are only referenced in a single study. In addition, there is only one study (Tendani et al., 2021) that sought to develop a new model through integration of prior models. However, of the five studies that reference consumer behavior theories or models, there is not a single study that holistically applies a selected reference theory/model in an African traditional food context.

Table 4. Details of referenced theories in reviewed studies

Referenced theories	Author(s)
Theory of senses (Parimala, 2014)	Anetoh et al., 2020
Consumer decision theory (Blackwell, Miniard, and Engel 2005)	
The Key Economic Models (unspecified)	Omotayo et al. (2021)
Theory of planned behaviour (Ajzen, 1991)	
Attitude behaviour model	
Altruistic/moral behaviour (Olson, 1965)	
Norm activation model	
Theory of Planned Behaviour (Ajzen, 1991)	Pambo et al. (2016)
Motivation—Opportunity—Ability (MOA) model (Olander and ThØgersen, 1995).	Raaijmakers et al., 2018
Food Choice Questionnaire (FCQ) (Steptoe and Pollard and Wardle)	
Culinary Tourist Value Scorecard (CTVSC) (Adapted from Balanced Score Card)	Tendani et al. (2021)
Culinary Tourist Behavioural Involvement (CTBI)	

Source: Author's creation

4. Discussion

Several observations were made based on the results. The first was that the volume of published literature on consumer behavior towards traditional foods was generally low. This is a confirmation of similar observations by García-Barrón et al. (2021) who alluded to the scarcity of such research in Africa despite the rich cultural diversity of traditional foods on the African continent (García-Barrón et al., 2021), and despite the many ways in which Africa could benefit from such research. The observed scarcity of research on consumer behavior towards traditional foods at the African continental level is consistent with observation made in a country-level study in Zimbabwe where available research on traditional foods mostly focused on non-consumer behavior aspects such as increasing agricultural yield, minimizing pre-harvest and postharvest losses, and improving distribution along the supply chain (Moyo et al., 2021).

This sparsity of research on traditional foods means that actors in the traditional food marketing sector have limited information to rely upon in the development of interventions aimed at promoting the consumption of traditional foods in Africa. Such a situation increases the difficulty of realizing the potential benefits of increased traditional food consumption such as improved public health, reduced rural poverty, enhanced food and nutrition security, and strengthening of rural livelihoods. There is, therefore, an apparent need for more studies on consumer behavior towards traditional foods, not only for the benefit of marketing theory and practice, but also for the benefit of humanity as a result of the attendant broader socio-economic benefits.

While the volume of African research on consumer behavior towards traditional foods is low, it has been on a steady increase during the last five years. This rising interest in consumer behavior research on traditional foods has been the result of various reasons, which are implied in the background of the investigated papers. According to investigated papers published in the last five years of the review period, the main reasons cited for conducting consumer behavior research on traditional foods are the need to reduce food insecurity (cited 4 times), the need to reduce nutrition deficiency (cited 3 times), and the need to improve livelihoods (cited 3 times). Other reasons that were cited include the need to promote culinary tourism (cited 2 times), exploitation of new food processing technologies (cited 2 times), promotion of healthy diets (cited once), preservation of food resources (cited once), exploration of ethnicity and identify formation (cited

once), the need to slow down the prevalence of non-communicable diseases (cited once), pursuit of importation substitution strategy (cited once), the need to cover a market information gap (cited once), the need to promote the consumption of particular foods (cited once), and the pursuit of business opportunities associated with traditional foods (cited once).

Another significant observation was that 59% of research topics were based on sensory food attributes, with little attention being given to other aspects of food products such as packaging, branding, certifications (e.g. ISO), and food labels. A food label is any tag, mark, pictorial, or other description, written, stenciled, printed, marked, embossed on, or attached to a product's packaging (Kaczorowska et al., 2021). The role of labels is to communicate food attribute claims such as "organic," "environmentally sustainable," "pesticide free," and "nutritious," "local" (Wu et al., 2021). Certifications and labels are important for promoting consumer trust and providing assurance of food safety and quality, thereby helping consumers to validate authenticity and support their confidence in food (Wu et al., 2021). Unlike in Europe where the European Union (EU) has developed an elaborate system of protecting traditional and regional foods, such a system is not available in Africa. Europe uses the Protected Food Name Scheme to certify and label traditional and regional foods as either Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Speciality Guaranteed (European Commission, n.d.). Conducting research to investigate consumer responses to certification and labeling of traditional food could yield valuable information that could promote increased uptake of traditional foods.

Another notable result from the study was that there was a low reliance on consumer behavior theories to frame research in the investigated papers. Given that theories are useful for comprehending, explaining, or predicting phenomena of interest (Silverman, 2001), their limited usage implies a limited comprehension of the phenomenon of consumer behavior towards traditional foods in Africa. There is scope for conducting replication studies of various theories in the context of traditional foods in Africa. European literature is rich in both general behavior theories and more specialized theories that have enjoyed extensive application in food choice research.

Kwon and Silva (2020), in their systematic literature review of behavioral theories, identified 62 general behavior theories that were developed between 1890 (e.g. Cluster theory by Marshall) to 2012 (Social practice theory by Shove, Pantzar and Watson). Other theories that could be tested, adapted or used as an investigative or interpretive lens include the trying theory (Bagozzi and Warshaw, 1990), goal directed theory (Nataraajan and Bagozzi, 1999), buyer behavior (Howard and Sheth, 1969), consumer decision model (Engel, Blackwell and Miniard, 2001), food preference and consumption model (Randall and Sanjur, 1981), consumer behavior model with respect to food (Steenkamp, 1997), theory of reasoned action (Fishbein and Ajzen, 1975), and the theory of planned behavior.

5. Summary of evidence and conclusion

The purpose of this paper was to present a scoping review of literature on consumer behavior towards traditional foods in Africa. The study sought to map the extent of available research evidence on consumer behavior towards traditional foods in Africa; to establish the nature of consumer behavior research topics conducted in relation to traditional food consumption in Africa; and to identify theories and models relied upon by researchers in approaching their research on consumer behavior towards traditional foods in Africa.

The scoping review revealed a scarcity of empirical studies on consumer behavior relating to traditional food in Africa. It was, however, established that, while the literature is sparse, it has been on a sustained increase in the last five years. Research is generally concentrated in west Africa, with Nigeria being the biggest contributor in that region while South Africa and Kenya were notable as other significant contributors outside west Africa. Most of the research is currently focused on traditional food sensory attributes (product-centric) and how consumers evaluate, perceive and like/dislike such attributes. There is also significant research exploring cognitive aspects underlying consumer behaviors such as attitudes, knowledge/awareness, consumer

involvement, identity formation, and consumer intention. However, the use of established theory or models in framing the research is very minimal.

The sparsity of research is conspicuous, and there is a need for more academics to take interest in traditional foods because of their strategic importance to food security, nutrition security, and poverty alleviation through viable agricultural livelihoods. More African countries need to participate in research on consumer behavior towards traditional foods because traditional foods, by their nature, will differ from place to place and culture to culture. The following suggestions and recommendations for future research are made: (a) participation of more African countries in research on consumer behavior towards traditional foods as it is currently sparse; (b) promote the reliance on consumer behavior theory and models in consumer behavior research in order to contribute to theory development by either testing existing theories or adapting them to the African and traditional food contexts; (c) conduct comprehensive systematic literature reviews (SLR) that consider the quality of sources of evidence (as this was beyond the purpose of a scoping review) and answer very specific questions; and (d) conduct holistic research on predictors of consumer behaviors instead of limiting it to individual factors (Popovic et al., 2019).

5.1. Limitations

Acknowledged limitations of this study refer, firstly, to the previously stated exclusion of papers not written in English which was decided on the basis of practical considerations because the cost and time involved in translating non-English literature could not be accommodated in this study. It is therefore possible that potentially relevant papers could have been missed in the review. This limitation is especially significant with regard to the largely Arabic speaking north African subregion where no source of research evidence was identified. Secondly, the literature search for this scoping review was conducted using the Web of Science and SCOPUS databases. Grey literature and other databases were excluded. Future studies could therefore consider expanding the literature search to other databases. Grey literature could also be included in future studies.

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