

# Millets Purchase and Consumption Behaviour- Current Trends and Implications for Future Research Based on Systematic Literature Review

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## **Abstract:**

*The popularity of millet is on the rise due to its nutritional, health and environmental benefits. The main aim of the study is to understand the current trends in millet purchase and consumption behaviour and to suggest future research directions. The methodology adopted for the study is a systematic literature review. The analysis is based on content and thematic analysis. The study used secondary data from the research papers published in national and international journals. In total 20 research papers were selected based on their fulfilment of the eligibility criteria. The results of the thematic analysis revealed 15 areas in the research findings related to the purchase and consumption behaviour of millets. The 15 areas are general millet consumption behaviour, millet awareness and consumption impact, preferred meal period for consuming millets, millet recommendation to friends and family members, millets consumption and geographical location relationships, millet consumption and demographic factor relationships, health & nutritional benefits of millets, consumption frequency of millet, perception about millets, reasons for consuming millets, reason for not consuming millets, millet promotion recommendations, millet type preferences, millets affordability and KAP about Millets. The results of this study will be beneficial for researchers to know the gaps in the literature and to gain a clue to conduct forthcoming research based on the recommended future research directions of the present study. The study will help marketers align their promotional strategies with millet purchase and consumption.*

**Keywords:** Millets, Millet Purchase, Millet Consumption, SLR (Systematic Literature Review), Millet trends, Millets Future Research Directions.

## **1. Introduction**

Never judge a book by its cover is one of the popular quotes used in day-to-day life. This quote does not apply only to books or people but it applies to grains too. A grain that looks very tiny but is packed with multiple nutritional benefits such as fiber, protein, vitamins, minerals, magnesium, calcium, iron and phosphorus has been called a miracle grain since ancient times. This miracle grain that is proudly finding a place in everyone's plate across the globe is called

millet. Millets are a part of the cereal grain from the Poaceae family or grass family. The main consumers of millets are from Asia and Africa and millets are becoming popular across the length and breadth of the world. Other interesting attributes of millets are gluten free, rich in antioxidants, packed with soluble fiber and low glycemic index. Due to the presence of multiple nutritional properties in the millet and its high flexibility to the human body, it provides multiple health benefits. The health benefits of consuming millet are that, it enhances gut health, prevents/ controls diabetes, prevents/ reduces cholesterol levels, helps to recover from digestive challenges such as constipation and bloating, is best for people with celiac disease, manages blood pressure and assists in weight loss.

Since the discovery of millets as a grain for human consumption, millets have seen several ups and downs in retaining themselves as part of the main grain used in daily consumption. The popularity and the demand for millet are steadily increasing due to the increasing health-related disorders among the general population and due to the promotion from agencies such as the Food and Agriculture Organization (FAO) and, the United Nations. The year 2023 was declared the International Year of Millets (IYM). In the closing ceremony of IYM, millets were announced as “Global Superfood” citing its nutritional and health benefits.

As per the report published by Mordor Intelligence, the market size of the millet is estimated at USD 11.53 billion in 2024 and the market is expected to touch USD 14.43 billion in the year 2029. The millet market is expected to grow at a CAR of 4.60% during the period 2024-2029. With regards to India, India is the largest producer of millet with an attractive statistic of 38.40% of the world’s millet production (Food and Agricultural Organisation) as reported by APEDA (Agricultural and Processed Food Products Development Authority). With regards to consumption of millets based on the report of Statista, consumption of Sorghum in India accounts for 4.45 million metric tons and other millet consumption exceeded 13 million metric tonnes during the year 2022. These statistics indicate a positive trend in the production and consumption of millets.

One of the important phases in the success of any business is the product purchase and consumption by the consumers in the market. Millet’s purchase and consumption are evolving only in the recent times in the market. Academic literature related to millet purchase and consumption is limited and it makes it difficult for the stakeholders to make decisions or to develop a strategic business plan to promote millet. In this context, the present study is focused on understanding the purchase and consumption of millets using an evidence-based approach called Systematic Literature Review.

## **2. Objectives of the study**

### **Research Question:**

Research Question:1: What are the reporting’s of the research papers that investigated the purchase and consumption behaviour of millets?

Research Question 2: What are the patterns reported in the findings of the research papers related to the purchase and consumption of millets?

Research Question:3: What are the factors influencing the purchase and consumption of millets and the current trends?

Research Question 4: What is the available scope to conduct future research related to the purchase and consumption of millets?

**Objectives:**

1. To review the existing review of literature related to Millet purchase and consumption Behaviour to understand the Current Trends in the Millet purchase and consumption.
2. To know the factors influencing the Millet purchase and consumption and to recommend future research directions.

**3. Methodology**

Dewey, A. & Drahota, A. (2016) reported SLR (systematic literature review) as a process of identification, selection and critical appraisal of the existing research to answer the research question of a study. Gough, D et al., (2017) defined SLR as a review type that intends to collect large research reports and summarize the research findings to answer a specific research question by adopting rigorous methods. The authors reported steps to conduct SLR. The four steps are indicated in table:1.

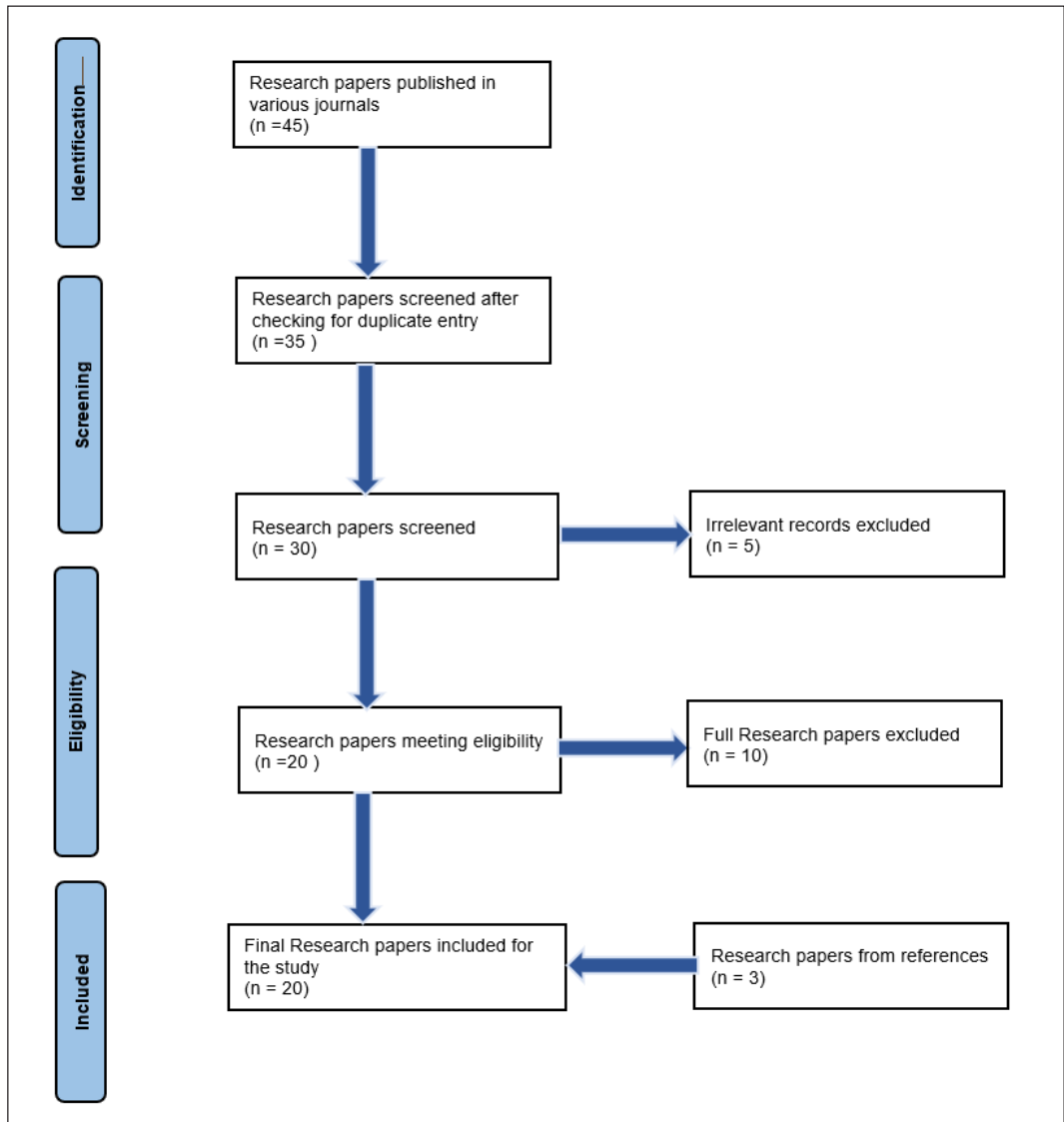
**Table:1: Steps in Conducting a Systematic Literature Review**

Steps	Step Description
Step:1	Identification of relevant research reporting
Step:2	Systematically reviewing and investigating the research findings reported in the research reporting
Step:3	Synthesizing the findings reported in the research reporting
Step:4	Understanding and concluding the research by addressing the research question

The author Pittway (2008) reported 7 important principles for conducting a systematic literature review. The principles are transparency, clarity, integration, focus, equality, accessibility and coverage. The methodology to achieve the objective is a systematic literature review. Considering the applicability and relevance of SLR to the present study, a systematic literature review (SLR) was focused on understanding the prior research relevant to millet purchase and consumption behaviour across the globe. The research question posed for SLR is “What are the trends of consumer behaviour about the purchase and consumption of millets?”. The definition formed for the SLR is “Any studies related to purchase and consumption of millets reflecting the consumer behaviour in the global context. The keywords used for the SLR are millets, millets purchase, millets consumption, millet consumer, millet customer, millet buying behaviour and millet purchase intention. The study included research papers published by journals with Scopus, Web of Science and other indexing platforms as databases. The query for the SLR is based on the keywords proposed for the study.

Any research paper providing insights on millet purchase and consumption was included in the inclusion criteria of the present study. Any other paper that does not reflect the purchase and consumption of millet is excluded from the study. The search process for the SLR is based on the Journal Finder and Journal Suggester. All the research papers reflecting the keywords were selected and then screened based on the abstract of the paper. Papers providing insights on the purchase, selection and consumption of millets were retained and other papers were eliminated. The selected research papers were analysed based on content and thematic analysis and the findings of the research papers were grouped and named based on the specific area the findings were related. The study followed the PRISMA framework for conducting the SLR as exhibited in Figure:1

**Figure 1.** PRISMA model for screening, excluding and accepting the research papers



Steps for screening and filtering articles for final inclusion in the review study following the

#### 4. Results

Based on the content and thematic analysis, the study identified 15 themes related to the purchase and consumption of millet. The themes are,

1. General millet consumption behaviour
2. Millet awareness and consumption impact
3. Preferred meal period for consuming millet
4. Millet recommendation to friends and family members

5. Millet consumption and geographical location relationships
6. Millet consumption and demographic factor relationships
7. Health & nutritional benefits of millets
8. Consumption frequency of millet
9. Perception about millets
10. Reasons for consuming millet
11. Reason for not consuming millet
12. Millet promotion recommendations
13. Millet type preferences
14. Millets affordability
15. KAP about Millets.

Each theme is separately discussed with the synthesis drawn by observing the patterns of millet purchase and consumption reported among the studies and avenues for future research in the themes also discussed below.

### 1. **General Millet Consumption:**

Shirisha, S.D.S.N (2018) reported that 70% of the consumers consumed millet whereas 30% did not consume millet due to various reasons. The consumption of millet as per Thodeti Manasa et al., (2024) study is higher, 91% of the consumers consumed millet since it was served at their home. reported that millets were included in the diet of the consumers. 79% of the consumed millets and 21% did not consume millets. Adithya Girijavallabhan et al., (2022) reported that the majority of the respondents 89% consumed millet. Rizwana et al., (2023) reported that 62.7% of the women were involved in consuming millet.

Based on the findings of the above studies, it is clear that there is a positive trend in the consumption of millet. The general consumption pattern of millets is between 62.7% to a maximum of 91%. Although the percentage of consumption of millets differs from one study to the other, the percentage of people consuming millets is above 60%. Future research should be based on understanding the variability in the consumption percentage of the millets and knowing the factors that favour or hinder individuals in consuming millets.

### 2. **Millet Awareness and Consumption Impact**

MK Vahini et al., (2023) found an association between awareness of millet and its effect on consumption. Alam Prashanthi et al., (2022) mentioned that awareness of millets contributed to the consumption of millets among school children. Rizwana et al., (2023) reported that although 80.6% of the women knew about millets only 62.7% consumed millets, Contrary to these three studies, U. Sangeetha et al., (2022) reported that awareness of millets did not result in actual consumption.

Based on the above evidence, it is clear that awareness of millets indeed influenced the consumption of millets. One study did not find a positive relationship between awareness and consumption. Future research should be focused on how awareness and what attributes of the awareness are influencing or not influencing the consumption of millet.

### 3. **Preferred meal period for consuming millet**

Thodeti Manasa et al., (2024) reported that 64% of the consumers preferred millet for their breakfast.

The preferred meal period for consuming millet was not found in other research papers selected for the present study. Only Thodeti Manasa et al., (2024) reported that the breakfast meal period is preferred for consuming millets.

Future research should be focused on understanding the role of meal periods and the consumption preference of millet. What factors influence consumers to choose millets for a specific meal period can be an interesting area of research.

#### 4. Millet's recommendation to friends and family members

Shah et al., (2024) findings revealed that millets were consumed by regular consumers due to their dependency and they had initiated to provide the experience of the millets to their family members. However, the family members viewed millet-based meals were more for convenience.

Based on the above finding, it is clear that meal patterns in the home could influence the members of the family to adopt or try millet as part of their diet. Future research should be focused on how millet recommendations from friends and family members influence the consumption of millet.

#### 5. Millets Consumption and Geographical Location Relationships

MK Vahini et al., (2023) reported that per capita consumption of millets was higher in urban households (2.29 kg/month) in comparison with Rural India (1.83 kg/month). Kavimalar et al., (2024) highlighted the link between the local production and consumption pattern of millets with specific reference to Karnataka State, the authors highlighted Karnataka as the second largest producer of millets and also a high rate of consumption of millets. Kane-Potaka et al., (2021) reported no statistical significance between state-wise per capita production and millet consumption frequency in the Urban areas. Purvi Jain and Renu Mogra (2023) reported unevenness in millet consumption across geographical locations.

Based on the above evidence, it is clear that the difference in consumption of millets and the production of millets in a specific geographical location differs from one place to the other. Future research should focus on how millet production in a specific geographic location influences the consumption of millets in the same location. What factors contribute to the consumption or avoidance of consumption can be interesting areas of research.

#### 6. Millet Consumption and Demographic Factor Relationships:

Several studies investigated the association between millet consumption and Demographic factors. Shirisha, S.D.S.N (2018) reported that the education, income, and health level of the family influenced the millet's consumption. The study found that the educational qualification of the consumers and the income status of the consumers influenced millet consumption. A significant relationship was observed among consumers with higher educational qualifications had consumed more millets when compared to consumers with low educational qualifications. Similar to this finding, Lakshmy Priya et al., (2024) reported that monthly income and family size influenced the millets consumption. In particular, consumers with monthly income above fifty thousand per month had higher millet consumption frequency in comparison with consumers below fifty thousand per month income. Contrary to the above studies, Kaur, J et al., (2024) & MK Vahini et al., (2023) reported that consumers consumed millet irrespective of their family income. Age also played an important role in the consumption of millet. The age of the consumer influenced the consumption of the millet. As the age increases, the likelihood of consuming the millet also increases MK Vahini et al., (2023). This study also reported

female consumers enhanced the consumption statistics of millet. Apart from the age and sex of the consumers, the role of educational qualification of the consumers had a minor impact on the consumption of millet. Other studies such as Rizwana et al (2023) also found the role of demographic factors on millet consumption. Age, educational qualification and income had a direct impact on the consumption of millet. K Prasanthi and Dr G Sireesha's (2022) study revealed that consumers who are consuming millets were from the age group of 15-25 years and U. Sangeetha et al., (2022) had consumers from 22-23 years representing the millets consumption population. These consumers were educated with minimum UG qualifications.

Based on the above evidence, it is clear that educational qualification, income level, health status, age, monthly income, and family size influence the consumption of millet. Along with these demographic factors, insights such as the age of the consumer increase in the consumption of millets also increases, higher educational qualifications influencing higher consumption of millets and the role of the female gender in the consumption of millets are worth highlighting. Future research should focus on providing explanations of how demographic factors determine the consumption of millet more comprehensively.

#### **7. Health & Nutritional Benefits of Millets**

Improvement in the health status was noticed by 70% of the study population in Shirisha, S.D.S.N (2018) study. Hence, the author reported that millet consumption positively influenced the health status of the individual and it was attributed to the realization of the consumers towards the nutritional and health benefits of millet. Shah et al., (2024) reported that millet-based meals were prepared for parents experiencing lifestyle diseases. Adithya Girijavallabhan et al., (2022) reported that 90% of the respondents mentioned that millets are known for their nutritional benefits.

Based on the above evidence, it is clear that millet consumption helped to enhance health and to manage lifestyle diseases. This is mainly due to the multi-nutrition presence in the millet and its role in curing lifestyle illness and enhancing the overall health of the consumers. Future research should focus on providing scientific evidence on how millets enhance the health of the individual and how millets help to manage lifestyle diseases.

#### **8. Consumption Frequency of millet**

Shirisha, S.D.S.N (2018) reported that consumers consumed millet daily or on alternate days and it was beneficial for the consumers. Similar findings were reported by Purvi Jain and Renu Mogra (2023). As per the study, 51.67% of the consumers consumed millets frequently, 27.50% consumed millets regularly, 14.17% consumed occasionally and 6.67% of the consumers did not consume millets at all. Lakshmy Priya et al., (2024) reported that 41% of the consumers consumed millets one to 3 times a week to one to three times in a month. However, Adithya Girijavallabhan et al., (2022) reported that only 4% of the consumers consumed millets daily and 23% of the consumers reported consuming millets 3-4 times a week.

Based on the above evidence, it is clear that the frequency of millet consumption among consumers is higher. Future research should focus on providing insights into why millet consumption is high or low in a specific population and the factors associated with the consumption.

#### **9. Perception about Millets:**

Shirisha, S.D.S.N (2018) reported that millets were superior in comparison with wheat or rice. Interestingly, while investigating the perception of the consumers, consumers viewed wheat

or rice had better nutritional value when compared to millet. Shah et al., (2024) highlighted consumers who frequently consume millets had higher awareness of the environmental benefits of millets and its cultivation than the consumers who consume millets occasionally. MK Vahini et al., (2023) highlighted that when the millet consumer holds a positive perception of the taste of millets, it enhances the likelihood of purchasing millets by 12.44%. In the case of a positive perception of millets for its nutritional value, it enhanced the consumption of millets by 14.82%. Adithya Girijavallabhan et al., (2022) reported that 6% of the respondents of the study mentioned millet as rural food. U. Sangeetha et al., (2022) reported a positive attitude towards the consumption of millets.

Based on the evidence reported above, consumers have both negative and positive perceptions. While studies reported positive attitudes towards the consumption of millets, millets being superior and millets having environmental benefits, nutritional value of millets and taste of millets, studies also reported wrong or negative perceptions about millets such as wheat or rice having better nutritional value compared to millets and millet as rural food. Future research should be focused on how consumers form positive or negative perceptions of millet and the factors associated with it.

#### 10. **Reasons for Consuming Millets:**

Several studies reported the reasons for Consuming millet. Kane-Potaka et al., (2021) reported that millets were accepted by consumers with health problems (28%), consumers trying to lose weight (15%), and consumers selecting millets for taste (14%). Padmalini, S et al., (2023) reported that millets were consumed to maintain overall health. Lakshmy Priya et al., (2024) found that the nutritional value of millets and their health benefits were the main reason for the consumption of millets. MK Vahini et al (2023) indicated a list of influential factors for the purchase of millets, the first one was health benefits, the second one was price and the last one was a taste of the millets. Interesting results regarding the consumption and reason for consuming millets were reported by Adithya Girijavallabhan et al., (2022). The first reason was for the health benefits of millets, and the second reason was for the taste of millets. In the international context, Changmei Shadang (2017) highlighted that consumer selected millets due to their health benefits, ease of preparation and taste of the millets.

Rizwana et al., (2023) reported that millets were consumed due to their potential in preserving health. Immunity building of the self and the family was one of the most important factors for consuming millet. A. Kalaiselvi & L.A.Razia Fathima (2016) millets were preferred by consumers for their nutritive value. Other reasons were, to reduce the consumption of wheat and rice, millets were considered as best food for diabetes, the price of millets, convenience in using millets, taste of the millets and weight reduction. Kaur, J et al ., (2024) reported that millets were consumed due to health-related reasons, family tradition in using millets, and raising awareness of millets, especially among the younger population.

Based on the above evidence, it is clear that the top three reasons for consuming millets are the health benefits of the millets, the taste of the millets, potential to manage or cure health related disorders. Other reasons for consuming millets are the nutritive value of millets, price of millets, reducing the consumption of wheat or rice, family tradition in using millets, increasing awareness of millets, ease of preparation of millets and convenience in using millets. Future research should focus on other factors that may be influencing consumers to purchase and consume millet. Such as environmental factors, availability of millet, recommendations from the important referents etc.

### 11. Reason for Not Consuming Millets:

Padmalini, S et al., (2023) reported the factors inhibiting the purchase and consumption of millet. The factors are low awareness of the nutritional benefits of millets, and lack of availability of millets and millets were expensive in comparison with rice/ wheat. Other reasons for not consuming millet as reported in Kane-Potaka J et al., (2021) were millet not consumed at home and not preferring the taste of millet.

Shah et al., (2024) pointed out that although millets were suitable for any age group of consumers it was not selected by all consumers since millets were promoted as medicinal food. U. Sangeetha et al., (2022) highlighted that the consumption of millets was lacking due to factors such as low purchasing ability, difficulty involved in preparing millet-based products and lack of availability of millet-based products in the market.

Based on the above evidence, the list of reasons for not consuming millets are lack of awareness of nutritional benefits of millets, lack of availability of millets, price of millets being expensive when compared to rice/ wheat, millet not being consumed at home, not liking the taste of millets, promotion of millets by tagging it as a medicinal food, lack of affordability to purchase millets and challenge in preparing millet-based products. Future research should focus on overcoming the challenges of consuming millets by addressing the reasons for not consuming millets as reported in this present study.

### 12. Millet Promotion Recommendations:

For promoting millet among Urban Consumers, Kane-Potaka et al., (2021) recommended to use of social media since social media is the main source of information for the Urban market. The author also recommended three important strategies to increase millet consumption. The strategies are designing tasty millet-based products to satisfy the taste preference of the consumers, making the consumers aware of the nutritional and health benefits of millet and most importantly, making millet accessible and available for the Urban markets. Kavimalar et al., (2024) recommended that millet should be promoted as a staple food not only for its excellent nutritional benefits but for its indirect benefits such as benefits for economic development and agriculture. Adithya Girijavallabhan et al., (2022) suggested ensuring the ease of availability of millets especially for children and young adults to enhance the consumption of millets. In addition, a public distribution system could be a platform for supplying millet, similar to rice or wheat distribution. Alam Prashanthi et al., (2022) recommended that providing education on the nutritional benefits of millets may further enhance awareness thereby increasing the consumption of millets. Shah et al., (2024) mentioned that consumers who were consuming millets regularly and occasionally pointed out that they were not satisfied with the way how millets marketing is done. Millets were promoted as a medicinal food to manage health or reduce weight.

MK Vahini et al., (2023) recommended promoting the millets and their consumption by focusing on attributes such as enhancement of taste of millets, increasing the awareness of millets and making millets affordable to a mass market segment. Mohan, A et al., (2022) recommended that food manufacturing companies should focus on launching a wider choice of millet-based snacks. The authors also recommended the Food and Health Department devising policies for promoting millet-based food. Purvi Jain and Renu Mogra (2023) recommended more popularization of millets to reach a large population. U. Sangeetha et al., (2022) reported that consumers had recommended ready-to-cook or ready-to-eat value-added millet-based products.

Based on the evidence given above, a comprehensive list of promotional strategies of millets reported in the research papers selected for the study are , usage of social media to promote millets among urban market, designing tasty millet-based products, enhancing the taste of millets, rising awareness and educating the consumers about the nutritional and health benefits of millets, enhancing the accessibility of the millets in particular to the Urban markets, children and young adults and mass market, promoting millets as staple food, highlighting the other benefits of consuming millets among the consumers such as ability of the millets to contribute to the development of the economy and helping the farmers growing millets, using public distribution system as a supply chain for distributing millets to the consumer, refrain from promoting millets as medicinal food, launching wider choice of millet based snacks, devising specific policies for promoting millet based food, popularization of millets to wider market, creating more options for millet based ready to cook or ready to eat products. Future research should focus on understanding how the promotional strategies of millets reported influence the purchase and consumption of millets.

### 13. Millet Type Preferences:

Purvi Jain and Renu Mogra (2023) reported that 82.50 % of the consumers had an awareness of Sorghum. Other millets known to the consumers were pearl millet, finger millet, barnyard and foxtail millet. Little awareness of Kodo and Little Millets was found in the study. A comparative study between Urban and Rural consumers to know the choice of millets by Changmei Shadang (2017) revealed that urban consumers preferred finger millets whereas in the rural areas, consumers preferred pearl millets followed by Barnyard and then finger millets. Purvi Jain and Renu Mogra (2023) reported that Sorghum was the top most preferred millet by all age group. The second preferred millet was pearl millet. Proso millets were least preferred by children.

Lakshmy Priya et al., (2024) reported a list of millet-based preparations that are preferred by the consumers. The list includes millet dumplings, millet porridge, millet pongal, millet upma and millet biscuits. The author also reported that consumers practiced mixing millets with other grains in particular with the pulses. The most preferred millets were finger millets and it was witnessed across all income groups. The high preference for finger millet among adolescents was also reported in Thodeti Manasa et al., (2024) study and U. Sangeetha et al., (2022) as well. The author mentioned that preferred millet products were millet dosa batter, millet noodles, millet flakes, millet bread and millet-based beverages. Adithya Girijavallabhan et al., (2022) reported a list of millet-based products consumed by consumers. It includes millet roti, millet kichadi, millet snacks, millet bread, traditional millet-based sweets, millet dumplings/porridge and millet dosa/pancake. Awareness of millet-based products among the majority of the consumers were millet cookies, little millet vermicelli, multi millet noodles/ pasta, millet biscuits, millet idly/ dosa or pancake mix was reported. Anbukkani et al., (2017) reported that the highest consumption of small millets was found across India and in Rural areas. Alam Prashanthi et al., (2022) reported that students with millet awareness displayed awareness of millets such as sorghum, pearl millet and finger millet.

Based on the above evidence, it is clear that top topmost preferred millet is finger millet and the following millet is sorghum. Other millets known to the consumers are pearl millet, barnyard millet, foxtail millet, and proso millet. Millet in the fresh and the processed form includes millet dumplings, millet porridge, millet pongal, millet upma, millet dosa, millet roti, millet kichadi, millet bread, millet biscuits, millet noodles, millet flakes, millet-based beverages, millet snacks, traditional millet sweets, millet pancake, millet cookies, little millet vermicelli, multi millet

noodles, millet pasta and millet pancake is highly recommended. Future research should be focused on understanding the underlying phenomenon towards preference or non-preference of millets and how different types of millets in the natural or processed form influence the purchase and consumption of millets.

#### 14. Millets Affordability

Lakshmy Priya et al., (2024) reported that the majority of the consumers felt that they could afford millet. Adithya Girijavallabhan et al., (2022) reported that only 3% mentioned millet as an expensive product. MK Vahini et al., (2023) reported that as the price of millets increases, the consumption probability of millets.

Based on the above evidence, it is clear that millets are affordable for the consumers in the market and the price plays an important role in determining the consumption of millets. Future research should how different pricing of millets plays a role in the purchase and consumption of millets.

#### 15. KAP about Millets

KAP-related studies in the millets such as K Prasanthi and Dr G Sireesha (2022) indicated that 80% of the consumers had good KAP about millets and only 20% had poor KAP levels. A similar KAP study by U. Sangeetha et al., (2022) consumers in the age groups of 18-19, 20-21, 22-23 had displayed good knowledge and attitude about millets but the practices related to millets were in the range of medium to poor in all age groups.

Based on the evidence reported above, overall, the KAP of the consumers handling millet is acceptable. Future research should focus on the KAP of millets between rural vs urban and the role of demographic factors in the KAP of millets.

#### 5. Limitations:

Although the present study has achieved the objectives set for the study, the data is not free from limitations. The limitations reported in this section can serve as directions for future research in this area. The data for the present systematic literature review is purely from the twenty research papers qualified to be included in the SLR analysis. In this context, the present study acknowledges the limitation in providing total insights on millet purchase and consumption. The insights provided in the present research are exploratory. Generalization of the results reported in the present study should be exercised cautiously. In addition, the study acknowledges a rare chance of missing some relevant research papers meeting the inclusion criteria of the present study. Given the vast research repository and fragments in the publication of the research paper in different journals, the scope of missing relevant research papers exists as a limitation of the present study. In addition, the present study has not included research papers that were published only in the print version. A final limitation of the present study is not including the research papers that were published in any language apart from English.

#### 6. Conclusion:

The concept of millet purchase and consumption is evolving. Important insights that are evident from the synthesis of the literature include the following,

Overall, there is a positive trend towards the purchase and consumption of millets. More consumers prefer to consume millet and the frequency of consumption is also high. The main reason for consumption of millets is due to their nutritional benefits, health benefits, taste of

the millets and power of the millets to manage lifestyle related disorders. This purchase and consumption trend is a boon for the stakeholders including farmers, millet marketers, millet retailers and also to the policymakers. The stakeholders involved in the millet supply chain must join hands together to develop strategies that will ensure continuous enhancement of the millet purchase and consumption experience of the customers by fulfilling the needs and expectations in millets, such as ensuring the nutritional content of the millets is retained, the taste of the millets is enhanced and assist the consumers to reap the health benefits in consuming millets. The marketing strategies should focus on highlighting the powerhouse of nutrition present in the millets, showcasing the health benefits and the taste of the millets.

The present study also found evidence for the relationship between millet consumption demographic factors and geographical locations. Due consideration of the demographic factors and geographical location shall be given while designing the marketing mix or any strategies related to the millet promotion. The present study also highlighted a set of recommendations given by the researchers to promote millets such as using social media to promote millets in urban markets, promoting millets as staple food instead of medicinal food, creating more educational and awareness programmes for the consumers by highlighting the nutritional and health benefits of millets. In addition, the economic and environmental benefits of millet shall also be informed to the consumers.

An interesting finding of the present study is consumers prefer millets in a wider variety of value-added or ready-to-eat formats. The marketers can capture this opportunity to innovate and introduce more choices in the millet-based products in the market. The KAP related to millets was positive as per the evidence reported in the present study. However, there is a scope for improvement in KAP of millets. Beyond creating awareness, the complete KAP of millets shall be focused on to enhance the purchase and consumption of millets and to ensure the retention of the customers. Overall, the present study sheds light on the ocean of opportunities available for the millet business across the globe. Linkage of all the stakeholders under one roof and more collaboration along with active participation will pave the way for the millet to regain its place on everyone's plate as a staple food as how it was during the ancient times.

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