



CONSUMPTION PATTERN OF VALUE ADDED MILLET PRODUCTS IN URBAN AREAS OF PRAKASAM DISTRICT OF ANDHRA PRADESH

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ABSTRACT

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Millets are small-grained cereal food crops with drought and extreme weather resilience and require minimal chemical inputs such as fertilizers and pesticides to flourish. Millets are also known as "Nutri-cereals" because they contain most nutrients necessary for regular human body function. The objective of the present study is to collect the data on market opportunities for value added millet products in urban areas of Prakasam district of Andhra Pradesh. The study is based on primary data collected from sample of 80 consumers from four urban centres (20 consumers from each urban center). Majority of the consumer's household size is 4 members (76.25%), while (30.00%) consumers were graduates and (36.25%) were from the public sector. Most of the consumers have a medium level of mass media exposure with (77.50%), of consumers buying value added millet products from nearby supermarkets (56.25%) and (70.00%) of consumers were having a medium level of knowledge of value added millet products. Most of the consumers were preferring to consume pearl millet daily (42.50%) and (46.37%) of consumers consuming it at any time. Majority of consumers preferred to consume millet instant mixes and spend the maximum amount on Traditional recipes (58.58%). The market potential in urban areas of Prakasam district for traditional recipes was rupees 72.15 crores followed by pasta products rupees 21.46 crores, for bakery products rupees 16.86 crore, for flaked and popped products rupees 8.29 crores and for instant food mixes rupees 4.02 crores.

KEYWORDS: Nutricereals, Consumption pattern, Consumer preference, Market Potential.

INTRODUCTION

Millets are significant grains that are crucial to the food and nutrition security of developing nations in the semi-arid tropical regions of Asia, Africa, particularly India, Nigeria and Niger. Millets are all-season crops that are grown throughout year and generate numerous securities (food, fodder, health, nutrition, livelihood and environmental), making them agricultural security crops at accessible rates. Sorghum (great millet), bajra (pearl millet), ragi (finger millet), and minor millets such as korra (foxtail millet), little millet, kodo millet, proso millet, and browntop millet are all significant millet crops cultivated in India.

A total of 31.719 (1000 MT) of millets were produced worldwide. The world's greatest producer is India (41.04%), followed by Niger (11.94%) while Africa is the largest consumer of millets. The global millets market was valued at \$ 9.95 billion in 2020 and is estimated to rise at a CAGR of 4.49 per cent between 2021 to 2028 to reach \$ 14.14 billion. Millets are grown in India over an area of 23.83 million hectares, yielding 51.15 million tonnes with a productivity of 2146 kg ha⁻¹. In India for the year 2020-21, Rajasthan stood first place in production with 4288.34 ('000 tonnes) followed

by Uttarakhand (1967.27), Karnataka in (1762.17) and Andhra Pradesh (301.91). With respect to production of individual crops in India (2020-21), pearl millet stood 1st place with 8664.13 ('000 tonnes) followed by sorghum (3475.41), finger millet (1238.70) and minor millets (333.00) respectively. In Andhra Pradesh, millets are cultivated in area of 0.51 million hectares, with a production of 2.45 million tonnes and yield of 4805 kg ha⁻¹.

Some of the startups are also working in millets and millet-based products such as Health Sutra, Manna health foods, Tata Soulful, Slurrp farm, IIMR-Eat rite, Eat any time and Native food stores. Most of the consumers are consuming millets mostly in both ready-to-eat (RTE) and ready-to-cook forms (RTC) is (46.00%), as staple food grains (29.00%), only RTC (13.00%), and RTE (12.00%). The market share of various millet forms like staple grain form was (79.17%) higher followed by RTE (15.88%) and RTC (04.95%).

Value addition in millets impacts numerous aspects, such as increasing the demand and utilization of millets in the diet of consumers. The creation of opportunities for consumers and farmers in consumption and production of millets has been made possible through technological

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intervention. Processing millets into ready-to-eat and ready-to-cook products provides abundant opportunities for the entrepreneurs on a variety of scales and there is a lot of scope, need, and market potential for millets and millet-based products.

MATERIAL AND METHODS

Andhra Pradesh state was purposively selected for the study because the researcher hails from the same state and he is familiar with the local language. Prakasam district of Andhra Pradesh was selected purposively for the study as the researcher hails from the same district. Four urban centers were selected from the Prakasam district purposively based on the high human population namely Ongole, Chirala, Markapur and Giddalur. Two retail outlets were selected from each urban center by using simple random sampling procedure thus making a total of eight retail outlets. From each retail outlet, ten consumers who regularly buy the value added millet based products were selected by following purposive sampling, thus making a sample size of 80 consumers. The data on the consumption of millets and consumer preference towards value added millet products were collected with the help of a structured interview schedule developed based on the study objectives and the collected data was analysed using percentages, frequencies, mean, standard deviation, and garret ranking.

RESULTS AND DISCUSSION

Consumption pattern of value added millet products in urban areas of Prakasam district of Andhra Pradesh

Consumption pattern was defined as the process by which people search, identify, purchase and consume products and services in a way to meet all their needs or desires.

Frequency of millets consumption

From Table 1 it can be concluded that the majority of consumers were consuming pearl millet (53.75 %) and finger millet (40.00 %) daily, pearl millet (42.50 %) and foxtail millet (51.25 %) once a week, little millet (77.50 %) and sorghum (48.75 %) once a month, and finally kodo millet (67.50 %) and proso millet (66.25 %) once in three months.

From Table 1 it can be inferred that pearl millet is consumed daily in different forms such as flat breads, grains to make porridge, and ready to eat snacks like multi-grain cookies etc., because it is easily available at a lesser cost with good taste and nutritional value when compared to other millets. Also, Pearl millet products are

the best alternative to chapathi from ancient times. Finger millet is also consumed daily by most of consumers as ragi sangati because the cooking process is simple than millet products.

Form in which value added millet products are consumed

Table 2 shows the Garrett ranking for different forms in which value added millet products are consumed by consumers. Among them “Instant mixes” was ranked first followed by “Ready to cook foods”, “Bakery products”, “Ready to eat” (RTE) foods, “Flaked and Popped products”, and “Pasta products” with ranks second, third, fourth, fifth and sixth respectively.

It is evident that most of the consumers are from the public sector and private sector, hence they do not have enough time for cooking and preferring for instant mixes because it requires only 5 to 7 minutes for cooking just by using hot water. Apart to it, the added advantage from the instant mixes is that it requires no ingredients while cooking and had good storage life. This trend was followed by ready to cook foods because these foods also save the preparation time with less spoilage and also usually more preferred by the children because of its taste.

Monthly consumption pattern of value added millet products

Table 3 shows the average quantity and average price on monthly consumption pattern of value added millet products. Based on the results it was found that majority of them were consuming traditional recipes (67.80 %) followed by bakery products (11.86 %) and pasta products (10.55 %). Based on average price, more than half of consumers were spending amount on traditional recipes (58.58 %) followed by pasta products (17.55 %) and bakery products (13.72 %) respectively.

Majority of the consumers are consuming traditional recipes in the form of breakfast foods like idli, dosa, upma *etc.*, lunch foods like ragi sangati, rice recipes *etc.*, sweets like halwa, kesari, kheer *etc.*, snacks like pakoda, murukku *etc.*, dinner foods like flatbreads *etc.*, made up of millets. On an average, consumers were spending more amount on traditional recipes because this type of consumption was more preferred than others.

In the frequency of millet consumption, pearl millet and finger millet were consumed daily, pearl millet and foxtail millet consumed once a week, little millet and sorghum consumed once a month and kodo millet, proso millet consumed once in three months. Most of the consumers preferred to consume different forms of value

Table 1. Frequency of millets consumption in daily, once a week, once a month and once in three months

S. No.	Types of millets	Daily			Once a week			Once a month			Once in three months		
		Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage	Frequency	Percentage
1.	Sorghum	12	15.00	23	28.75	39	48.75	6	07.50				
2.	Pearl millet	43	53.75	34	42.50	3	03.75	0	0				
3.	Foxtail millet	29	36.25	41	51.25	7	08.75	3	03.75				
4.	Little millet	2	02.50	10	12.50	62	77.50	6	07.50				
5.	Finger millet	32	40	37	46.25	9	11.25	2	02.50				
6.	Proso millet	0	0	0	0	27	33.75	53	66.25				
7.	Brown top millet	0	0	0	0	28	35.00	52	65.00				
8.	Kodo millet	0	0	0	0	26	32.50	54	67.50				

Table 2. Garrett's ranking for different forms in which value added millet products consumed by the consumers

S. No.	Products	Garret's score	Garret's mean score	Rank
1.	Instant mixes	5188	64.85	I
2.	RTC foods	5001	62.51	II
3.	Bakery products	4788	59.85	III
4.	RTE Foods	3560	44.50	IV
5.	Flaked and popped products	2747	34.33	V
6.	Pasta products	2724	34.05	VI

Table 3. Distribution of categories according to the average quantity and average price per month

S. No.	Category	Quantity (g)		Price (₹)	
		Average quantity	Percentage	Average price	Percentage
1	Traditional recipes	4769.37	67.80	1601.32	58.58
2	Bakery products	834.37	11.86	375.11	13.72
3	Pasta products	742.25	10.55	479.82	17.55
4	Flaked and popped products	437.25	06.21	187.25	06.85
5	Instant food mixes	250.86	03.56	89.83	03.28
Total		7034.11	100.00	2733.35	100.00

added millet products, of which instant mixes followed by RTC foods and bakery products were majorly preferred. A greater percentage of traditional recipes were consumed by consumers and also the average amount spent by consumers on traditional recipes, pasta products, etc.

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