

Assessment of consumer acceptability and market potential of convenience foods developed from buckwheat (*Fagopyrum esculentum*)

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■ **ABSTRACT :** Common buckwheat (*Fagopyrum esculentum*) is a broad-leaved herbaceous annual. It belongs to the family Polygonaceae, which is generally referred to as the buckwheat (Soral-Æmietana, 1987). Buckwheat has gained an excellent reputation for its nutritious qualities in the human diet. Its renewed popularity stems from its many bioactive components, which have been shown to provide various health benefits much sought after in natural foods (Eggum and Kreft *et al.*, 1981). Convenience foods are a class of foods which impart convenience to the consumers by way of little or no requirements of major processing or cooking before their consumption. In the present study, consumer acceptability and market potential of convenience foods were assessed. Biscuit, Namkeen, Papad, Pasta, Idli mix were prepared through incorporation of buckwheat whole flour. Consumer acceptability and market potential were assessed through interview schedule. It was found that ready to eat foods as Biscuit and Namkeen were preferred more by consumers and shopkeepers as compared to ready to cook food and Idli mix.

■ **KEY WORDS:** Convenience foods, Ready to eat, Assessment

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Common buckwheat (*Fagopyrum esculentum* Moench.) is a broad-leaved herbaceous annual. It belongs to the family Polygonaceae, which is generally referred to as the buckwheat, rhubarb or sorrel family. Buckwheat has gained an excellent reputation for its nutritious qualities in the human diet. Its renewed popularity stems from its many bioactive components, which have been shown to provide various health benefits much sought after in natural foods. Convenience foods are a class of foods which impart convenience to the consumers by way of little or no requirements of major processing or cooking before their consumption. In the present study consumer acceptability and market potential of developed convenience foods from buckwheat flour were assessed.

■ RESEARCH METHODS

The present study was conducted at Department of Food

and Nutrition, College of Home Science, Maharana Pratap University of Agriculture and Technology Udaipur (Rajasthan).

Preparation of convenience foods :

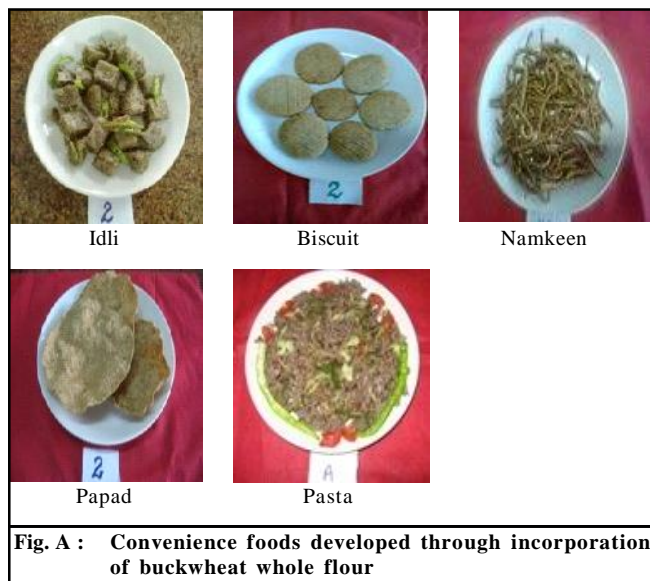
Convenience foods as Idli, Biscuit, Namkeen, Papad, Pasta were prepared through incorporation of buckwheat whole flour (Fig. A). An interview schedule was developed and pre-tested to collect the information regarding consumer acceptability and market potential.

Selection of families for consumer acceptability assessment:

Thirty families were identified by personnel contacts and consumers who were educated and were willing for consuming such products were selected for assessment of consumer acceptability.

Distribution of convenience foods :

About 100 g of each developed convenience food



(Biscuit, Namkeen, Papad, Pasta, Idli mix) packed by vacuum packaging, was distributed to the families by the investigators. The consumers were asked to consume these convenience foods (Biscuit, Namkeen, Papad) and for Idli mix and Pasta, method of preparation was described orally while distribution so, they can easily cook these products. Nine point hedonic scale of Peryam and Pilgrim (1957) quoted by Swaminathan (1987) was used for rating of the sensory attributes for each of the product.

Assessment of market :

Survey of 30 shops of different areas of Udaipur city was conducted and information regarding types of convenience foods, most preferable convenience foods as ready to cook, ready to eat, and instant mix was collected.

RESEARCH FINDINGS AND DISCUSSION

Consumer acceptability of developed foods was

Table1 : Consumer acceptability of developed foods (n=30)

Sr. No.	Response of consumer	f	Per cent
1.	Knowledge about convenience foods		
	Yes	24	80
	No	6	20
2.	Type of food consume		
	(i) Ready to eat	18	60
	(ii) Ready to cook	-	-
	(iii) Mixes	-	-
	(iv) All	12	40
3.	Reason of not consuming		
	Expensive	21	70
	Harmful	-	-
	Do not like	-	-
	Any other (due to adulteration, religious believe etc.)	9	30
4.	Interest in using	21	70
		9	30
5.	Best among all convenience foods		
	(i) Biscuit	12	40
	(ii) Namkeen	6	20
	(iii) Papad	9	30
	(iv) Pasta	3	10
	(v) Idli mix	-	-

Table 2 : Sensory evaluation of developed foods by consumer

Sr. No.	Products	Mean± SD values of sensory attributes					
		Colour	Appearance	Texture	Aroma	Taste	Overall
1.	Idli mix	7.7±0.98	7.56±0.72	7.53±0.81	7.53±0.68	8.3±0.65	7.72±0.60
2.	Biscuit	8.33±0.47	8.33±0.47	8.53±0.50	8.66±0.47	8.7±0.46	8.51±0.39
3.	Namkeen	8.1±0.54	7.9±0.54	8.06±0.52	8.0±0.45	8.26±0.63	8.06±0.47
4.	Papad	8.1±0.60	8.16±0.79	8.3±0.59	8.03±0.88	8.23±0.67	8.16±0.59
5.	Pasta	7.7±0.46	7.8±0.40	8.03±0.55	7.73±0.78	7.76±0.81	7.80±0.35
	General mean	7.96±2.77	7.93±0.32	8.04±0.38	7.98±0.43	8.25±0.33	8.05±0.31

Table 3: Market potential of products (n=30)			
Sr. No.	Response of shop keeper	f	Per cent
1.	General information of shopkeeper		
	Education		
	(i) Uneducated	–	–
	(ii) 12 th	6	20
	(iii) Graduate	9	30
	(iv) Post graduate	15	50
2.	Age		
	25-30	12	40
	30-35	6	20
	35-40	12	40
3.	Selling of convenience foods	30	100
4.	Most preferable by consumers		
	Ready to eat	21	70
	Ready to cook	9	30
	Instant mix	–	–
5.	Most preferable among all		
	Biscuit	15	50
	Namkeen	9	30
	Papad	6	20
	Pasta	–	–
	Idli mix	–	–

assessed through a proforma and results are presented in Table 1.

Table 1 represents that 80 per cent people were familiar with convenience foods. The results indicated that 60 per cent people consumed ready to eat food, 70 per cent of consumers gave reason for not consuming convenience foods as of high price. Among all developed convenience foods, 40 per cent people preferred Biscuits for consumption followed by Papad (30%), Namkeen (20%) and Pasta (10%). Consumer

acceptability of all products was observed as good besides Idli mix, because people preferred ready to eat foods (60%) for consumption as compared to other type of food.

Sensory evaluation of products was graded between 7.72 ± 0.60 for Idli mix to 8.16 ± 0.59 for Papad which indicated that all products were liked very much by the consumers (Table 2).

Market potential of developed convenience foods indicated that all shopkeepers sold convenience foods, and ready to eat foods which were preferred more (70%) followed by ready to cook foods (30%) (Table 3). Developed Biscuits were observed most preferable (50%) by shopkeepers as compared to Namkeen (30%) Papad (20%). It can be conducted that all convenience foods will be acceptable in market, for consumers. Among all convenience foods, ready to eat foods were preferred more by consumers and shopkeepers.

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