

A STUDY ON EFFECTS OF STANDARDIZED RECIPES OF BAKERY PRODUCTS IN PUNE REGION

by

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ABSTRACT

The study is conducted in hotel management colleges & bakeries of five star hotels in Pune to find out importance of the standardization of recipes in bakery products. Standardization of recipes is necessary for many reasons. The use of standard recipes ensures the product will be consistent in quality each time they are made. By using standardized recipe planned number of portions will be produced. Every organization has their own standard recipe. There is not any universal recipe in the world which everyone follows. It is manipulated according to the need of the customer & organization. The user of the recipe can be chef, teachers, students & housewife etc. A questionnaire was circulated to the final year students & teachers of hotel Management Colleges & bakery chefs to obtain their response. The majority of population agree that standardization of recipe is required for preparing bakery products. It is strongly recommended to follow the standard recipes for making bakery product as it gives same result every time. It is suggested to make different varieties of products to give a choice to the customer

KEYWORDS: “standardized recipe”, “standardization”, “bakery products”, “hotel management colleges”, “five star hotels”.

INTRODUCTION

Standardization of recipes is necessary for many reasons. Product will be consistent in quality each time they are prepared using the standard recipes. By using standardized recipe the planned number of serving will be produced. Nutritional values per serving will be consistent in standardized recipes. For the food cost control standardized recipes provide consistent information because of the same ingredients and quantities of ingredients used each time the recipe is made. It is useful for purchasing as the quantity & quality of food required for production is easily calculated from standardized recipe. Exact number of labor requirement can be predicted & even maximum use of their time can be utilized for the particular day. An instruction given for preparation of products helps the

new joiner & training cost of the employer is saved. Standardized recipes eliminate guesswork, reduces the chances of producing poor food products which increases chefs confident & feel more satisfied in their jobs (NFSMI 2002)

Bakery products are the integral part of meals in some countries. In India, it is not a staple food but generally eaten at the time of breakfast or hi tea & used for making bakery based products. Bakery products are generally made from the flour, yeast, salt & water. Other kind of bread contains additional ingredients, including sugar, shortening, milk, eggs, and flavorings. Sliced bread, khari, toast are very commonly made in most of the bakeries. These products are always made in bulk quantities.

It is very challenging task for bakers to make good quality product every time & avoid excess of production since most of the items are perishable. Moreover minimize the wastage & reduce food cost.

OBJECTIVES

- To study the standardization of recipes.
- To find out the benefits of the standardized recipes
- To identify the factors which influences the buying decision of the customers

LITERATURE REVIEW

- **Nasruddin Hassan (2013)** reveals that proper production planning is a key condition to a production system success, that considers the real world resource limitations such as budget, time and labor. The study is undertaken to developmental programming model to optimize the daily production of a small, medium enterprise & big enterprise .Main goals considered are maximizing the daily sales profits, minimizing overtime, and maximizing the utility of machines used in the production of the bakery products.
- **Martin David (2013)** studied the consumer preference towards bakery products and to analyse the perception of consumers towards the bakery and bakery products. The study has been limited to Study consumption pattern of bakery products. The study covered only from the point of consumers from southern region of Tamil Nadu.
- **Sakhale, B. K., Chalwad, R.U. And Pawar, V. D. (2012)** made mixed fruit toffees from fig and mango pulp at different proportions. After that evaluated for physico-chemical and sensory quality characteristics. The observations were that the toffee prepared by blending the fig and mango pulp at 80:20 proportions was found superior with respect to protein content and organoleptic quality parameters.
- **J. Martínez-Monzó(2012)** studied the basic trends in bread, bakery, and pastry innovation that are related to health, pleasure, convenience and quality. Study analyzes

how culinary trends are influencing product innovation in bread and similar products. Bread and bakery not solely a complement to the dishes served in their restaurants but a fundamental aspect of their innovation offerings as per the new cuisine and leading chefs

- **E.J. Pylar And L.A. Gorton** (2008) examines an understanding of the basic food science aspects of carbohydrates, proteins and lipids can help bakers and other practitioners of the baker's art in their job to develop products and manage the processing of baked foods. When solving formulating and production problems the ability to identify such compounds and recognize their differences goes a long way.
- **Vanisha S. Nambiar and Shilpa Parnamis** (2008) declares aim of the study to standardize and organoleptically evaluate freshly blanched leaves of the drumstick tree incorporated into recipes commonly consumed all over India. Analysis concludes that industrial production of ready-to-eat foods incorporating drumstick leaves might also be a useful to human being.
- **Giancarlo Barbiroli, Palmira Mazzaracchio** (2002) describes in his study that there has been a remarkable boom in the production of bakery products and flour confectionery & the range of products to be found on the market has not only increased but also includes previously non-existent categories. The innovative ideas on new standard is also proposed based on quality factors such as weight constancy, wholeness, deformations, cracks and abrasions, and anomalous colorations. Proposal has a prevailing methodological purpose.
- **Clara R.B. Oguntona** (1999) examines the standardization of ten Nigerian dishes and the determination of their proximate composition. The recipes alongwith preparation method for the ten dishes were obtained through the use of questionnaires. The preparations were considered acceptable since they scored more than 3, the benchmark for acceptability

RESEARCH METHODOLOGY

The research approach- the research design used for this project is descriptive in nature. The study approach is predominantly on qualitative methods.

Primary data is collected through questionnaire with chefs, students, & teachers of hotel management colleges to get information on standardization of recipes. Secondary data is collected through various websites, research papers & text books.

A random stratified sample technique representing various segments of the hotel management colleges & hotels of Pune was selected to conduct present study.

RESULT & DISCUSSIONS

Every organization has their own standard recipe. There is not any universal recipe in the world which everyone follows. It is manipulated according to the need of the customer & organization. The user of the recipe can be chef, teachers, students & housewife etc.

The cooking knowledge of every individual is different. Two factors are necessary for preparing any kind of bakery product i.e. theoretical knowledge & skill. One can gain that one by reading bakery books & practicing. The period required for acquiring the skill vary individual to individual. Some people take a few months or others few years to learn the techniques. The expertise of every baker is different.

The base for making any bakery product is a recipe without that it is very difficult to make same product every time. But there are some expert chefs who do not agree with the statement. They are very confident about themselves. Humanly remembering all bakery products recipe & method is difficult. It is not possible for chefs also to invent recipe every now & then. The best way is to refer the recipes from the book & make changes according to the requirement. The recipes can be modified to control on the cost, availability of ingredient or may be because of resources.

IMPORTANCE OF STANDARDIZED RECIPES

Standardized recipes are important because it pre determines the cost required for the recipe, nutritional value which everybody is more concern & customer satisfaction for the repeat business.

- **Cost:** Standardized recipes have the list of the ingredients & its quantity is given. Sometimes specific quality of the ingredient is also mentioned. Once the quantity & quality of ingredient is known, it is very easy to calculate the cost of the recipe. As the quantity increases even the cost of the recipe also increases. But in bakery preparations purposely the quantity of ingredient cannot be changed it will affect on the quality of bread. Scientifically the capacity of every ingredient is different. It changes texture, color & taste of the end product.
- **Nutrients per Serving:** Every ingredient contains some kind of nutrients in it. As the quantity is increased or decreased its nutrient contains also changes. For the nutrient, dominant material cannot be changes it affects on the entire product but definitely small quantity of the food can be added which not really affect the product. Nutrients are one of the important components in any type of food; preservation of it should be taken into consideration.
- **Customer Satisfaction:** Standardized recipes produce the same product every time irrespective of who is making the recipe. This is what every customer also expects the same good product every time he is having or buying. The instruction is so clear that

even new joiner also can read & make the same quality of product. Customers will be happy & satisfied when his expectation of product is met. Guess work is avoided in the standard recipe. Customers satisfactions is the most important milestone in organization which can be achieved through standard product served to the customer

PHASES OF RECIPE STANDARDIZATION

There are three phases of recipe standardization: recipe verification, Product evaluation and quantity adjustment. Recipe verification phase consists of checking of the recipe in detail, making it, verifying its yield, and write any changes occurred while verifying. The acceptability of the product produced from the recipe is checked in product evaluation phase. At this particular stage sensory evaluation of the product is conducted & acceptability is decided on parameters like appearance of the product, texture & finally the taste of the product. If the product doesn't meet the standards then quantity of the ingredient is changed. These all are laboratory experiments where product goes through the different phases. The different quality & quantity of the raw material is used for the desired quality of product. Small quantity of ingredient changes the products appearance etc.

BENEFITS OF STANDARDIZED RECIPES

Standardized recipes provides many benefits which are necessary for many reasons

- **Food quality is Consistent:** the first benefit of the standardized recipe is that each time the food quality is same when it made & served to the customers. The consistent product can be achieved through a standardized recipe only as it tried & tasted several times before it is declared as standardized recipe
- **Yield is Predictable:** before preparation of the actual product its yield can be forecasted based on the standardized recipe. The advantages of the predictable yield is that overproduction or under production of the recipe can be avoided which saves money because of the wastage food or dissatisfaction of customers.
- **Increased Customer satisfaction:** customers satisfaction is increase by giving them consistent quality of food item. Standardized recipe produces the same & good results every time it is made. Customers are more happy when the expectations are met & gives recommendation to colleagues
- **Consistent nutrient content can be predicted:** standardized recipes will ensure nutritional values of the food item produced as quantity of each ingredient is mentioned in the standard recipe. Now a day's customers are very conscious about the nutritional content of food items the inclination of the customers is towards the healthy product along with the other characteristics.

- **Food cost can be controlled:** it is possible to produce required quantity of portions & control the food cost by avoiding the excess production since the quantity of the ingredient is known before hand & save the cost.
- **Ease in purchasing procedures:** standardized recipes have the list of ingredient with quantity & specific quality of it. The total quantity can be calculated & lump sum quantity can be avoided. At the same time variety of the ingredient can be written & guess work or human error of remembering can be reduced.
- **Inventory taking:** exact required quantity of ingredient can be checked in the stores & more can be ordered as and when it is required. Excess stock of ingredient can be avoided & required ingredients to be stocked . it is possible by using the standardized recipe.
- **Control on labor cost:** chefs work becomes easier by using the standardized recipe since recipe has every minute detail like preparing instructions & quantity of ingredient. New trainees can follow it & produce the same result. Cost on training of the employee is saved & time is utilized for productivity.
- **Employee confidence can be increased:** employee's confidence level is increased as they get the same product which was expected. Guess work, overproduction or shortage of food item is totally avoided. They feel very satisfied with their work.
- **Record keeping is reduced:** now days every organization has their standardized recipes booklets. Only the recipes required for the day is referred. Any other unwanted documents can be reduced. Soft data also can be kept instead of taking the hard copies. When the menus are set & standardized recipes are ready the records lesser & record keeping becomes easier. (NFSMI 2002)

FACTORS AFFECTING BUYING DECISION

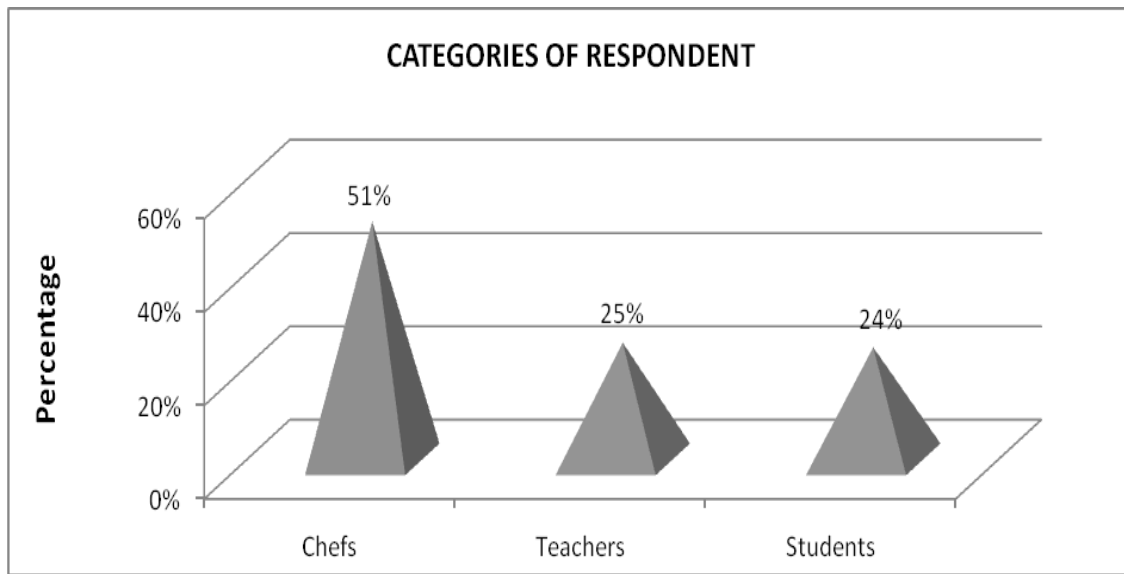
When customers buy bakery products, they look at the price, color, taste, flavor, texture & nutritional value on the packet. Customers have different perceptions for buying of bread. The most important amongst all is price of bread which decides whether to buy or not. Some people are very particular about the color, taste, flavor & texture of bread. Irrespective of the price of the bread, they buy if satisfied with these factors. Nutritional content also plays an important role while making decision. Customers have become very conscious about content & follow all dietary rules.

HURDLES IN STANDARDIZING OF RECIPE

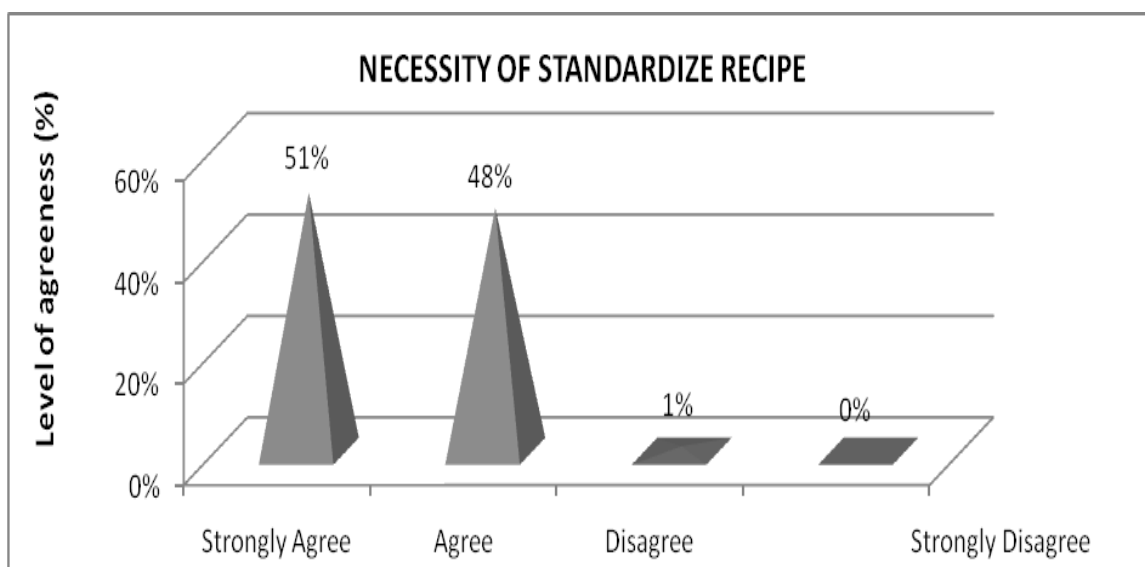
The standardization process involves money, labour, quality of ingredient & record keeping. Recipes are needed to try before standardization for that ingredients are required.

For making best product best quality of raw material is necessary. Without the equipment & other resources making of bread is impossible. Skill level of the employee also matters for standardization. Well experienced chef knows the characteristics of the ingredients that need to apply. Once the recipe is tested & tried, preservation of recipes & implementation of that is challenge.

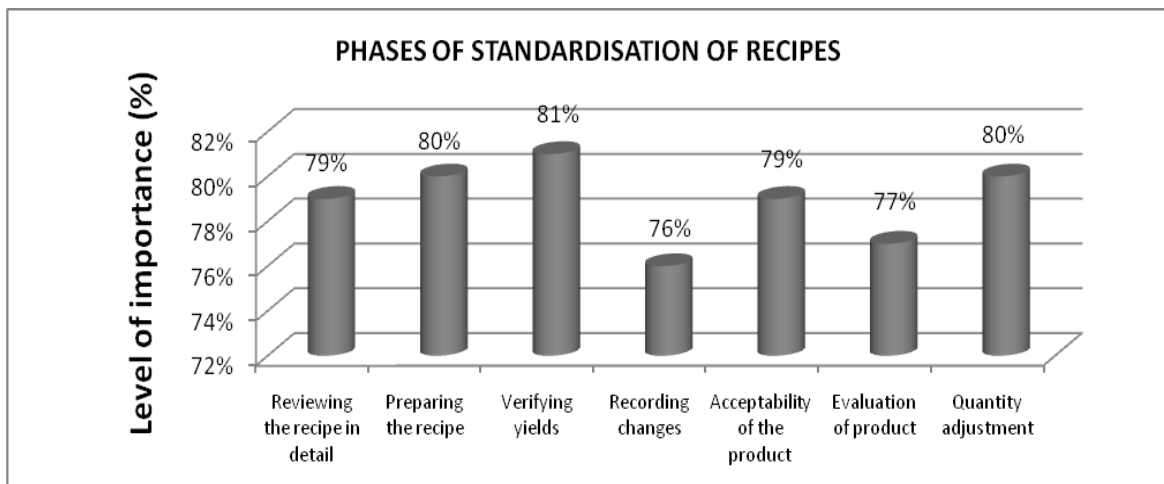
DATA ANALYSIS & FINDING



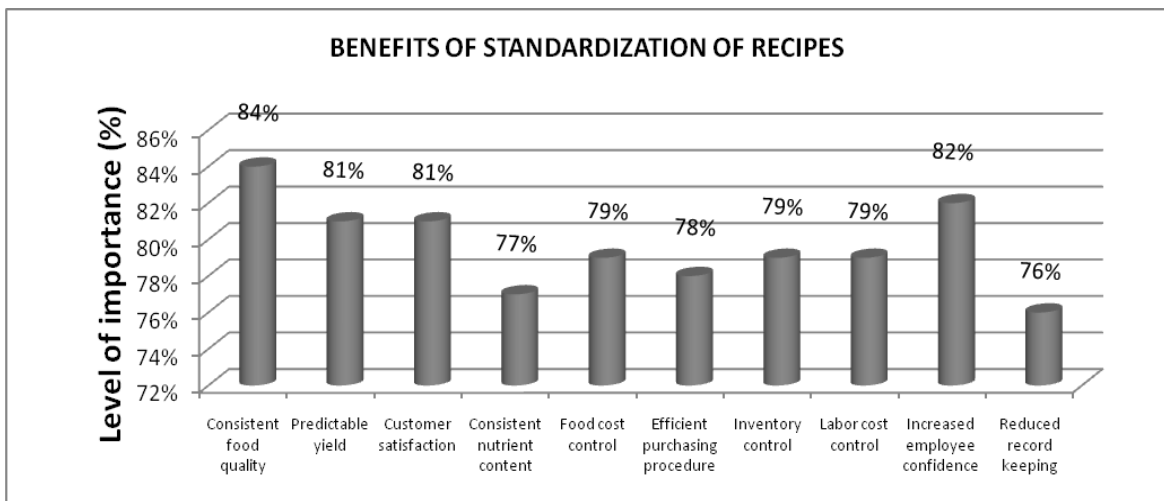
Data was collected from different categories of people out of that most of the feedbacks were taken from the chefs of bakeries. Almost same number of data was collected from the teachers & students of final year in hotel management colleges.



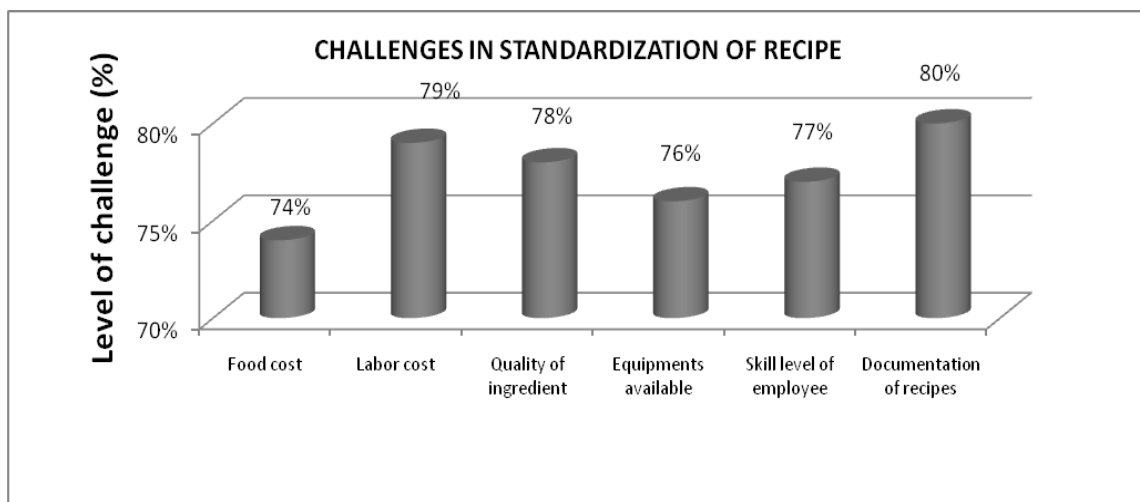
Most of the people agree that standardization of recipe was must for the preparation of the bakery products & only one percent said it was not necessary that is because of their confidence & experience.



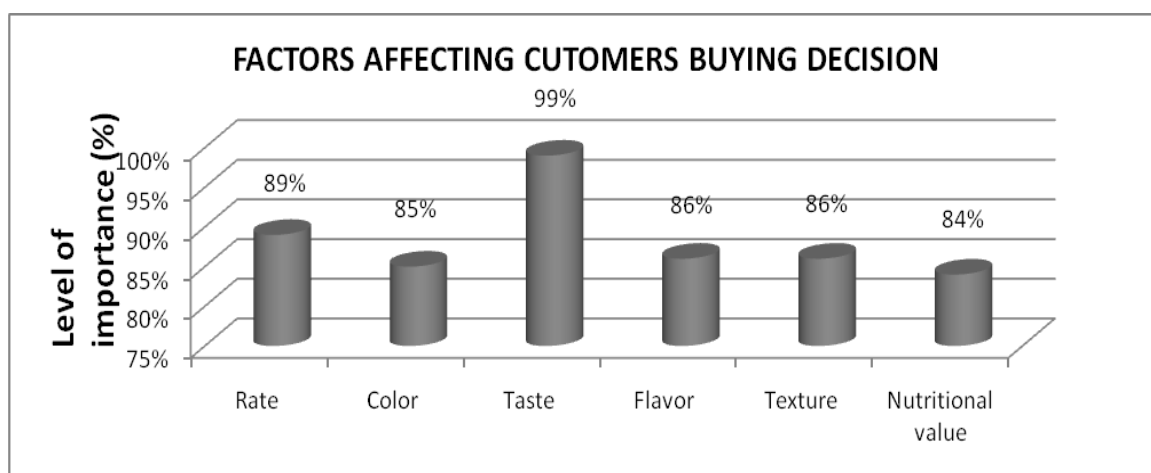
Almost all of the phases of standardization of recipe were important but slightly more important was verifying of yield & second one is preparing recipe & quantity adjustment



Consistent food quality was one of the important benefits of standardized recipe & after that were increased employees confident.



The first big challenge in standardization of recipe was documentation of standardized recipe & second one was labor cost.



Taste was the most important factor which affects the customers buying decision & least important is nutritional value of the bakery products. The other important factors is the rate that changes the mind of customers.

SUGGESTIONS & RECOMMENDATIONS

- It is strongly recommended to follow the standard recipes for making bakery & product as it gives same result every time.
- It is observed that all the phases of standardization of recipe are important. The recipes should undergo all phases to achieve good quality product.
- Chefs should maintain records while standardizing a recipe. It is very difficult to remember observations.
- It is suggested that appearance of the product should be very attractive & acceptable. We always eat with our eyes then actually taste at the same time. Other factors as taste, texture etc are also important.
- It is suggested to make different varieties of products to give choice to the customer.

CONCLUSIONS

- The majority people agree that standardization of recipe is required for preparing bakery & confectionery products.
- Verifying yield is the most important phase in standardizing of recipe while other phases are also important
- The biggest challenge in standardization of recipe is documentation of recipe & food cost is the smallest challenge
- Taste is the most important factor which affects the buying decision of the customer

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