

Factor Affecting the Choice of Cheese in Bhutan: A Choice Architecture Perspective

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Abstract: *This study was undertaken to understand and to assess consumer choice architecture of cheese with respect to working women in Thimphu. It was also aimed to understand the buying pattern of the cheese by people living at that area and to provide better choice without forcing certain outcomes upon anyone. In Bhutan cheese is main ingredient and one of the necessities to every dish. It is important to maintain the quality and other attributes to standardize the consumer and their choice but there is a problem in making better choice due to having types of cheese in the market. Therefore, assessment of choice architecture on cheese product will bring the right choice option for the consumer to make right purchase decision. It would also bring changes in attributes and design of the cheese which can help to nudge consumer to make better choice for their consumption. The study was conducted taking working women in Thumphu as a sampling frame. The Researcher has found that the women in Thimphu choose more of imported cheese as there is availability of discount in cheese and gets an additional benefit likes free sample but when it comes to free taste of cheese, local cheese is preferred more compare to imported as it provides local taste.*

Keywords: *Cheese, Choice architecture, Bhutan*

I. INTRODUCTION

Cheese is one of the most important ingredients of the Bhutanese cuisine. There are broadly two variety of cheese in Bhutan. The local produced cheese (Datshi, processed cheese) and imported cheese. Processed cheese is manufacture in Bumthang and Tashigang Dzongkhag in our country. The local made cheese is available in the rural area, where every household knows the procedure of making it.

The Consumption Pattern of Bhutanese customer in terms of cheese consumption is quite different than other countries. In our country, most of the customers choose dairy products specially the cheese as it is the essential part of Bhutanese dishes. There are different customers with the different income level choosing for the cheese product. According to Bhutan Living Standard Survey [BLSS]

(2012), most of the customer of low income level demand for the local cheese as it is cheap for them to purchase and available in the local area but in case of the middle and high income level they consume both imported and local cheese, but they mostly go with imported cheese because they look for durability and availability at their place.

The choice and taste on cheese consumption has been changed a lot due to the globalization of market. People are becoming more aware of the quality attributes of the different cheese and are choosing the best product with their choice and taste. Therefore change in the consumer's taste has posed new challenges for the cheese producer in the market. In this current scenario, people pay more attention to healthy diets when it comes to their product choices. As consequences, demand for high protein and energy goods has increased in the market. Moreover, Bhutanese consumers choose the cheese with low price, well-shaped and size, and the packaged. In Bhutan, Cheese is the main staple items use in the dishes. Despite the plenty of cheese available in the market, there are problems with the customer choices on cheese that is between local and imported cheeses. According to the annual report on Bhutan Trade Statistics (2017), it was found that there are about 545551.119 value of cheese imported and 260600 values of cheese are exported to India. Therefore, the imported cheeses are more than the exported which indicates that the choice for imported cheese is relatively high as compared to local cheese. The main reasons behind the problem of choices between local and imported are due to different attributes in the local made cheese and imported cheese in terms of packaging, branding, pricing, hygienic, quality, quantities, availability, competition and durability. These are some vital reasons that affect the customer to make a right choice among cheeses. Thus, this study tends to ascertain why customers are not choosing the local made cheese for the consumption. Moreover, this study also contributes in making effective decision of customers on the cheeses that is offered to them. The problems of choice among the cheeses can be guided by the six principle of choice architecture (Paul wood, 2014).

The objective of the paper is

To determine the factor that affects choice of cheese of Bhutanese women from perspectives of six principle of choice architecture.

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II. LITERATURE REVIEW

The word “choice architecture” is credited to Thaler and Sunstein. According to Thaler, Sunstein, & Balz, (2010) “The practice of influencing choice by changing the manner in which options are presented. It’s a design of different ways in which choice can be presented to consumers.” At the same time, according to Thaler & Sunstein, (2008) “If anything you do influences the way people choose, then you are a choice Architect.” Moreover, Choice architecture is a metaphor which captures the ideas that all choice occurs within a structure that is rich with contextual and task features. Together, these features help to construct a person’s choice Johnson et al., (2012) The six principles of good choice architecture are incentives, mappings, defaults, feedback, expect error, and structure complex ideas (Thaler & Sunstein, 2008;Franco, 2018).

2.1. Default

Defaults are ubiquitous and powerful. They are also unavoidable in the sense that for any node of choice architecture system, there must be an associated rule that determines what happens to decision maker if does nothings. It is an important factor that has to be considering while making a choice of cheese. These factors include availabilities of cheese, habit, laziness and option less that is when there are few alternatives of cheese in the market to choose (Thaler, Sunstein, & Balz, 2010). The simple truth that makes the default principle work is that people take the action that requires the least amount of effort (Wood, 2015 ; Amy, Buckley, Buckley, & Bogomolova, July 2016.).

2.2. Expected error

Expected error means it is the common mistake and drawback of the products (Thaler et al., 2010). It expects the error in the packaging, durability and adulteration in case of choice of cheese. Human are expected to make mistakes while making choice as they will make positive decision or negative decision (Thaler et al., 2010)

2.3. Mapping

Effective mapping is all about making it easy for your customer to understand what they are going to experience when they purchase product and services (Franco, 2018; Johnson, et al., 2012;Amy, Buckley, Buckley, & Bogomolova, July 2016.). It includes placement, direction, experiences and the awareness of the product.

2.4. Feedback

The best way to improve your performance at something is to receive feedback. This is what the feedback principle is all about (Wood, 2014; Johnson, et al., 2012). It is information about reactions to a product and performance of task. In this factor it explains about customers’ negative and positive feeling towards local and imported cheese. Thus, feedback will help in better assessment of choice.

2.5. Structure complex

Choice as we know that it is complex in organizing, it is important to provide choice option to limit the complexity and to discomfort your customer experiences. People adopt different strategies for making choices depending on the size and complexity of the available options. When facing a

small number of well-understood alternatives, the tendency is to examine all the attributes of all the alternatives and then make trade-offs when necessary. When choice strategies are large, alternatives must be employed (Thaler et al., 2010) But when faced with a small number of choices, consumers are pretty good at reviewing each option and then making a choice on their own preference. The comparison process is not easy when there are lots of complex options (Wood, 2014; Johnson, et al., 2012; Thaler & Sunstein, 2008). It includes the features of the cheese like the price, promotion, size, packaging, and brand. So, making comparison and evaluating the available options will enhance the decision making.

2.6. Incentives

Incentive is concerned with answering the question, ‘What’s in it for me’? As when someone is presented with a choice they will need some form of incentive to encourage them to make the correct/ desired choice (Wood, 2015; Devit Wegner, 2012; Zhao, 2018). Most economist state that price is an incentive that acts according with supply and demand. As the price goes up there will be more production and less demand from consumers. With price discount for a product and other additional benefits from a product is associated. So the choice architects must think about incentives when they design a system (Thaler et al., 2010). We have to put the right incentives on the right people. It means we should set a right price on right people which motivation and encouragement will also help the consumer in proper decision making.

These are some principle of factors affecting the choice architecture. In this study the six principle of choice architecture is used to ascertain the choice of cheese between local and imported cheese.

Behavioral economics has given us the concept of choice architecture. But the concept of choice architecture has already diffused into several economic and public policy domains where individuals regularly experience suboptimal decisions (Southgate, 2010). Choice architects have significant, if perhaps underappreciated, influence, much like the architect of a building who affects the behavior of the building’s inhabitants through the placement of doors, hallways, staircases and bathrooms(Thaler et al., 2010). Decisions can only be described as rational by prescribing a framework with its own set of presumptions that assumes a single optimal response. People put great trust in their intuition. The past 50 years of decision making research challenges that trust (Thaler et al., 2010). People embrace irrelevant information. They see patterns where none exist. They prefer policies that save 90% to those that lose 10% even though the two are identical. People make mistake systematically(Thaler & Sunstein, 2008).

Consumers nowadays are increasingly aware of food safety, quality and authenticity. People adopt strategies for making choices depending on the size and complexity of the available options (FAO, 2019). Implementing nudge strategies, there is a range of opportunities, e.g. Product placement, accessibility and labeling (Ensaff, et al., 2015).

Individual's choice of food has been long been affected by both centuries-long eating tradition and modern globalization trend (FAO, 2019; Franco, 2018). A food product is not only a vital daily necessity with its utility, but also a component of expenditure in household budget. According to (Choden et al., 2016) on relation between household income and expenditure on food consumption, Bhutanese with higher income group spend more on consumption of dairy and poultry products such as milk, cheese, eggs and yogurt.

Foods from different brands cause different taste, quality, appearance and kind of products that will probably not be able to respond all customers' satisfaction. Therefore, the choice of a given dairy product can be explained in terms of four factors namely promotion, price and availability, packaging and product quality. According to Topuk & Sezer, (2015), analyzing the factor affecting civil consumption in Turkey, in order to increase the civil cheese consumption of the people, the cheese should be taken to market in hygienic condition and suitable packages. packaging format and color can be also be decisive in selling cheese, as, before buying the product, consumers get previous impressions through the packaging (Topuk & Sezer, 2015). According to Barros, Rosenthal, Walter, & Deliza, July-September(2016), the results of exploratory study identified that consumers are interested in health claims to be aware of the food benefits and they are more likely to prefer the label with more concise information and visual appeal for better understanding of the message.

Promotional activities also play a vital role in the expressing the uniqueness and importance of the products. Advertisement is the most popular means of promotion in Armenia, while there is an increasing trend of using sales promotion as well. Increasing the brand visibility through promotion and ensuring those brands are priced competitively is crucial(Ensaff, et al., 2015) Promotional vehicles that could be used include radios, TV, newspapers, road shows and e-commerce.

The dairy industry in Bhutan is growing rapidly, with increase in demand particularly from urban markets, access to cheap credit and access to inputs and push from the government (Ministry of Agriculture and Forests, 2017). The study looks into the way a choice is presented as influences what a decision-maker chooses. The role of choice architect is to take insights from psychology to build structure- to help guide decision makers to better choices for themselves and society(Camilleri R. Adrian, 2013).

III. FACTORS AFFECTING THE CHOICE ARCHITECTURE OF CHEESE

3.1. Default

Default is one of the most important factors that consumers use when evaluating the cheese product. The consumers perceive the difference between the local cheese and imported cheese with respect to default. Moreover, the availability, habit, and laziness of both the cheese determine the purchase behavior. As some vendors are selling the local cheese door to door and it act as only the option available or the consumer purchase out of their habit and laziness. According to NSB(2012), Bhutanese households spend

20.4% of their food budget on dairy products such as milk, cheese, butter, yogurt and eggs, indicative of the Bhutanese dietary habits. And also the consumer consumes the imported cheese as it's easily available in the market and as per their habit. Thus, the availability, habit and laziness influence the purchase and consumption behavior of the consumer in the cheese market (NSB, 2017).

3.2. Expected error

The expected error is the one of the cues that the customer uses when evaluating and making the choice of cheese. Human are expected to make mistakes while making choice as they will make positive decision or negative decision (Thaler, Sunstein, & Balz, 2010). People have fair to make error while they make choice of any products. Adulteration, taste and durability are considered as expected error while people make purchase decision on cheese. In case of local and imported cheese consumer found less taste associated in local cheese than that of imported cheese. Local cheese decays faster and people buy less of quantity for their consumption. Thereby people choose to consume both to compromise the taste and durability. Local cheese producer adulterating (mix floor with cheese) cheese which make consumer more cautious when they purchase local made cheese from the market but very few consumers are aware of all those practices. So, keeping this factor in the mind of consumer hampered the purchase decision on local cheese.

3.3. Mapping

Mapping is all about making it easy for your customer to understand what they are going to experience when they purchase product and services (Wood, 2014; CAMILLERI & LARRICK, 2015). This means it focus on the consumer's awareness about the product in the market. If the consumer not aware of the products that has been brought in the market, than this will create incomplete information to their potential customers but in our study, consumer is aware of both the cheese products which are presented to them by the marketer and some of the consumer who are of health conscious prefer to take less of imported cheese.

3.4. Feedback

The best way to improve your performance at something is to receive feedback. This is what the feedback principle is all about (Wood, 2015). It provides actionable market insights that can help them to improve the consumer experience and subsequently, their brand's performance. Customers explains' negative and positive feeling towards local cheese and their past experience. Consumers have positive view on the local cheese with regard to their health benefit but most of the consumer gives feedback pertaining to the quality, Durability, size and price of the cheese. When it comes to imported cheese there is a positive feedback to the quality offers with respect to taste, durability, and packaging. So, there is no action has been taken by the marketer to improve the local cheese and there is a gap between local and imported cheese to be filled by the marketers.

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3.5. Structure complex

Choice as we know that it is complex in organizing, it is important to provide choice option to limit the complexity in decision making. Looking at the alternatives options of both the cheese, consumers make proper evaluation on it (Thaler et al., 2010). As different alternatives or features affect in making choice of both the cheese, consumer while purchase of local cheese they undertake all the features or alternatives in consideration like the size of the cheese, promotion, price, packages and the brand in the market. Majority Consumer purchase local cheese looking at size of the cheese, promotional activities like vendors coming door to door and selling the local cheese which makes their purchase easier and thinking that the local cheese holds high value or it's organic and nutritional in nature. So, it lead consumer to make choice on local cheese. At the same time, consumers make choice or buy the imported cheese considering all the features or alternatives. They mainly focused on the size, packages and brand of the imported cheese as consumer purchase the imported cheese with proper packages as the life span of imported cheese is of long and they look the brand as it act as the trust and renowned in the market. The different size of the imported cheese also determines the purchase or decision of choice as there are many consumers preferring the different size of cheese. So, making the comparison and evaluating the alternatives of both the cheese will hamper the decision making of choice of both the cheese.

3.6. Incentives

Most of the consumer likes to get motivated and encouraged while purchasing the product. The price also plays a vital role in evaluating both the cheese. Consumers perceive a price difference between the local cheese and imported cheese price begin to affect their preference on the cheese. We have to put right incentives on the right

people(Thaler et al., 2010). In Bhutanese society most of the imported cheeses are consumed by the high income people as their price is high. On other hand, dairy products are of high value and are highly differentiated into variety of products (Choden, 2016). The consumer gets encouraged to buy a local cheese when they get a discount in price and for imported cheese when they get some additional benefits like the slice packets cheese and other free offers. So, in that way the consumer's choice or decision to buy a particular cheese is influenced.

IV. RESEARCH METHODOLOGY

The research is based on descriptive study attempting to assess between local and imported cheese from the women's perspective in Thimphu with the help of six principles of choice architecture. In order to find the key factor which affects the choice of consumers while they purchase cheese in the market we considered choice architecture as dependent variable and six principles as independent variables. The Descriptive Research describes what it is, involves description, recording, analysis, and interpretation of the present nature and the processes of phenomena (Joy, 2014). The research is conducted in Thimphu city , targeting 383 women as a sample. As per the requirement of the study, we have collected the primary data, this has been done by face to face enumeration using questionnaire. Questions are designed in two sets (A and B) whereby set A contains general information about the respondents and set B contains assessment of local cheese and imported cheese among the women in Thimphu based on the six principles of Choice Architecture. The Questionnaires were set using likert scale fulfilling our targeted research objectives. (Strongly agree = 5, Agree = 4, Neutral = 3, Disagree = 2, and Strongly Disagree =1)

V. DATA ANALYSIS AND RESULTS:

Table 1.1. Default of local and imported cheese

Category	SD	D	N	A	SA	Mean	S.D	P
Local cheese is not available at my place (DL1)	31	41	18	107	103	2.3	1.34	.00
Imported cheese is not available at my place. (DI1)	19	26	7	109	137	1.93	1.186	.00
There is only local cheese sold at my place.(DL2)	106	120	14	36	24	2.17	1.255	.099
There is only imported cheese sold at my place.(DI2)	101	112	14	42	41	2.3	1.338	.099
I purchase local cheese because of my habit.(DL3)	29	68	39	67	95	3.44	1.389	.00
I purchase imported cheese because of my habit.(DI3)	41	88	44	70	57	3.05	1.355	.00

Source: survey

In table 1.1, DL1, DI4 represents the default of both local and imported cheese which indicates in terms of availability. At the significant level of 5%, the P value of local and imported cheese is .00 which is less than 0.05.

Therefore, there is significant difference between local and imported cheese in term of availabilities in the market.

As mentioned in above (table1.1) the mean and standard deviation of local and imported cheese are (2.3) and (1.34), (1.93) and (1.183) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the availability of local cheese is more compare to imported cheese.

In above (table 1.1) DL2, D15 represents the default of both local and imported cheese which indicates in terms of sale. At the significant level of 5%, the P value of local and imported cheese is .099 which is more than 0.05. Therefore, there is no significant difference between local and imported cheese in term of availabilities in the market.

As mentioned in above (table1.1) the mean and standard deviation of local and imported cheese are (2.17) and (1.255), (2.30) and (1.338) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that the imported cheese is sold more compare to local cheese.

In table 1.1, L3, D16 represents the default of both local and imported cheese which indicates in terms of habits. At the significant level of 5%, the P value of local and imported cheese is .00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of availabilities in the market.

As mentioned in above (table1.1) the mean and standard deviation of local and imported cheese are (3.44) and (1.389), (3.05) and (1.355) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the purchasing habit of local cheese is more compare to imported cheese.

Table 1.2 Expected error of local and imported cheese

Category	SD	D	N	A	SA	Mean	S.D	P
There is no proper packaging in the cheese sold (EL1).	52	104	20	90	33	3.17	1.327	.00
There is no proper packaging in the cheese sold.(EI4)	29	33	13	117	105	2.21	1.298	.00
I consume less of local cheese as it decays faster.(EL2)	11	56	15	142	73	3.71	1.141	.00
I consume less of cheese as it decays faster.(EI5)	83	115	21	53	25	2.4	1.291	.00
There is adulteration in local cheese.(EL3)	27	82	83	91	31	3.06	1.174	.685
There is adulteration in cheese EI6	44	80	56	62	55	3.01	1.348	685

Source: survey

In table 1.2, EL1, EI4 represents the expected error of both local and imported cheese which indicates in terms of packaging of cheese. At the significant level of 5%, the P value of local and imported cheese is .00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of packaging of cheese in the market.

As mentioned in above (table1.1) the mean and standard deviation of local and imported cheese are (3.17) and (1.327), (2.21) and (1.298) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the packaging of local cheese is improper as compare to imported cheese.

In above (table 1.2) EL2, EI5 represents the expected error of both local and imported cheese which indicates in terms of durability of cheese. At the significant level of 5%, the P value of local and imported cheese is .00 which is less than 0.05. Therefore, there is significant difference between

local and imported cheese in term of durability of cheese in the market.

As mentioned in above (table1.1) the mean and standard deviation of local and imported cheese are (3.71) and (1.141), (2.4) and (1.291) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the local cheese decay faster as compare to imported cheese.

In table 1.2, EL3, EI6 represents the expected error of both local and imported cheese which indicates in terms of adulteration of cheese. At the significant level of 5%, the P value of local and imported cheese is .685 which is more than 0.05. Therefore, there is no significant difference between local and imported cheese in term of adulteration of cheese in the market. As mentioned in above (table1.2) the mean and standard deviation of local and imported cheese are (3.06) and (1.174), (3.01) and (1.348) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the adulteration of local cheese is more compare to imported cheese.

Table 1.3. Feedback of local and imported cheese

Category	SD	D	N	A	SA	Mean	S.D	P
I consume local cheeses because it has high quality (FL1)	7	28	27	128	109	4.02	1.021	.00
I consume imported cheeses because it has high quality (FI4)	22	52	38	122	64	3.52	1.215	.00
I purchase local cheese as it is good for health.(FL2)	9	30	25	124	110	3.99	1.064	.00
I purchase imported cheese as it is good for health.(FI5)	45	100	48	81	24	2.8	1.223	.00

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I consume local cheese because it is economical (FL3)	34	96	31	77	60	3.11	1.355	.041
I consume imported cheese because it is economical.(FI6)	39	100	35	92	33	2.93	1.267	.041

Source: Survey

In table 1.3, FL1, FI4 represents the feedback of both local and imported cheese which indicates in terms of quality of cheese. At the significant level of 5%, the P value of local and imported cheese is .00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of quality of cheese in the market.

As mentioned in above (table1.3) the mean and standard deviation of local and imported cheese are (4.02) and (1.021), (3.52) and (1.215) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the quality of local cheese is good compare to imported cheese.

In table 1.3, FL2, FI5 represents the feedback of both local and imported cheese which indicates in terms of hygienic of cheese. At the significant level of 5%, the P value of local and imported cheese is .00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of hygienic of cheese in the market.

As mentioned in above (table1.3) the mean and standard deviation of local and imported cheese are (3.99) and (1.064), (2.8) and (1.223) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the local cheese is good for health as compare to imported cheese.

In table 1.3, FL3, FI6 represents the feedback of both local and imported cheese which indicates in terms of economical of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.041 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of affordable cheese in the market.

As mentioned in above (table1.3) the mean and standard deviation of local and imported cheese are (3.11) and (1.355), (2.93) and (1.267) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the local cheese is economical as compare to imported cheese.

Table 1.4. Mapping of local and imported cheese

Category	SD	D	N	A	SA	Mean	S.D	p
I can easily get cheese from the shop. (ML1)	5	51	13	99	131	4	1.148	.00
I can easily get cheese from the shop. (MI4)	4	10	4	104	178	4.47	0.799	.00
I am aware about cheese present in the market.(ML2)	6	24	4	134	132	4.21	0.956	.001
I am aware about cheese present in the market.(MI5)	0	16	7	114	161	4.41	0.783	.001
I know where the cheese is sold.(ML3)	3	14	3	132	146	4.36	0.809	.019
I know where the cheese is sold.(MI6)	2	14	4	6	173	4.45	0.799	.019

Source: Survey

In table 1.4, ML1, MI4 represents the mapping of both local and imported cheese which indicates in terms of convince in getting cheese. At the significant level of 5%, the P value of local and imported cheese is 0.00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of convince cheese in the market.

As mentioned in table 1.4, the mean and standard deviation of local and imported cheese are (4) and (1.148), (4.47) and (0.799) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that the imported cheese is more continent to get from shop as compare to local cheese.

In table 1.4, ML2, MI5 represents the mapping of both local and imported cheese which indicates in terms of awareness of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.01 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of awareness of cheese in the market.

As mentioned in table1.4, the mean and standard deviation of local and imported cheese are (4.21) and (0.956), (4.41) and (0.783) respectively. Thus, the mean and

standard deviation of imported cheese is rated high which indicates that the customers are more aware of imported cheese as compare to local cheese

In table 1.4, ML3, MI6 represents the mapping of both local and imported cheese which indicates in terms of where the cheese is sold. At the significant level of 5%, the P value of local and imported cheese is 0.019 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of location where the cheese is sold in market.

As mentioned in table 1.4, the mean and standard deviation of local and imported cheese are (4.36) and (0.806), (4.45) and (0.799) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that the customers are aware of where the imported is sold as compare to local cheese.

Table 1.5. Structure complex choice of Local and imported cheese

Category	SD	D	N	A	SA	Mean	S.D	p
The price of cheese is reasonable.(SL1)	49	103	22	71	53	2.92	1.398	.848
The price of cheese is reasonable.(SI6)	51	96	14	105	32	2.9	1.336	.848
Promotional activities of cheese are high. (SL2)	37	117	32	90	23	2.82	1.311	.214
Promotional activities of cheese are high. (SI7)	31	113	32	93	29	2.92	1.223	.214
The packaging of cheese is done properly (SL3)	24	88	22	105	59	3.29	1.297	.00
The packaging of cheese is done properly (SI8)	7	29	10	155	98	4.03	0.981	.00
The price of cheese is reasonable.(SL4)	50	121	29	74	45	2.88	1.359	.001
I purchase cheeses as it is big in size.(SI9)	27	83	36	110	40	3.18	1.237	.001
It has a high brand in market.(SL5)	30	110	53	76	30	2.89	1.19	.00
It has a high brand in market.(SI10)	16	56	39	142	43	3.47	1.117	.00

Source: Survey

In above (table 1.5) SL1, SI6 represents the structure complex choice of both local and imported cheese which indicates in terms of price of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.848 which is greater than 0.05. Therefore, there is no significant difference between local and imported cheese in term of pricing of the cheese in market. As mentioned in above (table1.5) the mean and standard deviation of local and imported cheese are (2.92) and (1.398), (2.9) and (1.336) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that the price of local cheese is reasonable as compare to imported cheese.

In table 1.5, SL2, SI7 represents the structure complex choice of both local and imported cheese which indicates in terms of promotion of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.214 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of promoting of the cheese in market. As mentioned in above (table1.5) the mean and standard deviation of local and imported cheese are (2.82) and (1.311), (2.92) and (1.223) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that the promotional activities of imported cheese is high as compare to local cheese.

In table 1.5, SL3, SI8 represents the structure complex choice of both local and imported cheese which indicates in terms of proper packaging of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of proper packaging of the cheese in market. As mentioned in

above (table1.5) the mean and standard deviation of local and imported cheese are (3.29) and (1.297), (4.03) and (0.981) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that there is proper packaging of imported cheese as compare to local cheese.

In above (table 1.5) SL4, SI9 represents the structure complex choice of both local and imported cheese which indicates in terms of quantity of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.001 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of quantity of the cheese in market. As mentioned in above (table1.5) the mean and standard deviation of local and imported cheese are (2.88) and (1.359), (3.18) and (1.237) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that there is more quantity of cheese as compare to local cheese.

In table 1.5, SL5, SI10 represents the structure complex choice of both local and imported cheese which indicates in terms of brand of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of brand of the cheese in market.

As mentioned in table 1.5, the mean and standard deviation of local and imported cheese are (2.89) and (1.19), (3.47) and (1.117) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that there is high brand of cheese as compare to local cheese.

Table 1.6. Incentives of local and imported cheese.

Category	SD	D	N	A	SA	Mean	S.D	p
I get discount while purchasing the local cheese.(IL1)	71	121	13	73	20	2.5	1.275	.00
I get discount while purchasing the local cheese.(II4)	93	130	13	48	13	2.19	1.169	.00
I can test the sample of cheese before purchasing.(IL2)	85	131	11	42	29	2.33	1.289	.00
I can test the sample of cheese before purchasing.(II5)	113	133	9	29	14	1.99	1.107	.00
I get additional benefits (extra sample free) in buying cheese.(IL3)	103	145	10	24	16	2.01	1.09	.084
I get additional benefits (extra sample free) in buying cheese.(II6)	109	123	10	40	15	2.09	1.179	.084

Source: Survey



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In table 1.6, IL1, II4 represents the incentive of both local and imported cheese which indicates in terms of discount of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of discount of the cheese in market. As mentioned in above (table1.6) the mean and standard deviation of local and imported cheese are (2.5) and (1.275), (2.19) and (1.169) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that there is availability of discount on imported cheese as compare to local cheese.

In table 1.6, IL2, II5 represents the incentive of both local and imported cheese which indicates in terms of free taste of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.00 which is less than 0.05. Therefore, there is significant difference between local and imported cheese in term of free tasting of the cheese in market. As mentioned in above (table1.6) the mean and standard deviation of local and imported cheese are (2.33) and (1.289), (1.99) and (1.107) respectively. Thus, the mean and standard deviation of local cheese is rated high which indicates that there is availability of free tasting of cheese as compare to imported cheese.

In table 1.6, IL3, II6 represents the incentive of both local and imported cheese which indicates in terms of additional benefit of cheese. At the significant level of 5%, the P value of local and imported cheese is 0.084 which is more than 0.05. Therefore, there is no significant difference between local and imported cheese in term of getting extra benefit of the cheese in market. As mentioned in above (table1.6) the mean and standard deviation of local and imported cheese are (2.01) and (1.09), (2.09) and (1.179) respectively. Thus, the mean and standard deviation of imported cheese is rated high which indicates that there is more additional benefit of cheese as compare to local cheese.

Table 1.7. Combine mean

Factors	local cheese		Imported cheese	
	Mean	Rank	Mean	Rank
Default	2.6378	5	2.4311	5
Expected Error	3.3156	3	2.5406	4
Feedback	3.7028	2	3.0878	3
Mapping	4.1806	1	4.4378	1
Structural complex choice	2.9593	4	3.3024	2
Incentive	2.2733	6	2.0967	6

Source: Survey

From the table 1.7, we can conclude that out of the six variables, more people are looking for the mapping while they purchase local cheese in the market. Mapping in local cheese ranked high with 4.1806 mean which indicates that people are more influence by that variable while they make purchase decision on local cheese. Similarly, in imported cheese, mapping stood in first ranked with 4.4378 mean which indicates that this factor (mapping) influence the consumer in making their purchase. It also indicates that purchase decision on buying imported cheese are affected or influenced by this factor.

VI. CONCLUSION

F1: The researchers have found out that majority of women living Thimphu capital are choosing to consume more of local cheese because of their habit towards cheese and due to availability of cheese at their place. There are vendors availing the door to door service providing them with pure local cheese. Due to proper location of dairy shop in Thimphu and the local cheese available at Centenary Farmer Market satisfied the need for the women. But in case of imported cheese they consume less as there is no delivery service like that of local cheese. (Refer table 1.1). Therefore, local cheese is chosen more compared to imported cheese. The researchers have found out that majority of those women who are living in Thimphu area are mostly preferencing imported cheese because the local cheese has improper packaging which is cover by plastic and leave of banana. At the same time, it decays faster as compared to the imported one and the adulteration is also more in case local cheese (Refer table 1.2). which does not satisfy need and expectation of the customer, Therefore, it can be concluded that imported cheese is mostly consumed. When it comes to the choice of cheese between the local and imported cheese, the quality, hygienic and economic factors are considered more important so as to make a right choice. Therefore, researcher has found that the women in Thimphu prefer more of local cheese because it has a high quality and organic by nature which good health benefit and further it is affordable for them to purchase from the market. (Refer table 1.3). whereas in case of imported cheese although it has high quality but due to inorganic there is low demand for imported cheese. When it comes to where the cheese is sold and the continent of getting cheese the researcher has found that the women who are living in Thimphu is able to know where the imported cheese is sold and easily available as compared to local. In case of awareness of cheese present in the market the customers are more aware of imported cheese (Refer table 1.4). Thus, there are more women choosing imported cheese in case of appropriate awareness and continent to purchase. The researcher has found that the women living in the Thimphu they choose the imported cheese as there is appropriate promotional activities for the cheese in the market and the packaging and branding is also better compare to the local cheese available in Thimphu markets. At the same time, when it comes to quality both local and imported cheese is considered as good quality but customer prefer more of imported cheese (Refer table 1.5.). In case of the price comparison local cheese more expensive than imported due its organic in nature. Therefore, the women choose more of imported cheese when it comes promotional activities, packaging and branding. Additional benefit like providing extra sample and discount in purchasing cheese is also considered as an important expects in choosing the cheese items. The Researcher has found that the women in Thimphu choose more of imported cheese as there is availability of discount in cheese and gets an additional benefit likes free sample but when it comes to free taste of cheese, local cheese is preferred more compare to imported as it provides local taste.

REFERENCE

1. Amy, L. W., Buckley, E., Buckley, J. D., & Bogomolova, S. (2016,). Nudging healthier food and beverage choices through salience and priming. Evidence from a systematic review. Food Quality and Preference, 47-64 vol 51.
2. Barros, C. P., Rosenthal, A., Walter, E. H., & Deliza, R. (2016). Consumers' attitude and opinion towards different types of fresh cheese: An exploratory study. Food Science and Technology, 448-455.
3. Camilleri, A. R., & Larrick, R. P. (2015). Choice Architecture. In R. Scott, & S. Kosslyn, Emerging Trends in the Social and Behavioral Sciences. Edited by (pp. 1-15). New York: John Wiley & Sons, Inc.
4. Choden, T. (2016). Income and Expenditure on diary consumption in Bhutan. RIM, Semtokha, Thimphu: RIM.
5. Devit Wegner, A. P. (2012). Choice architecture and smart phone privacy. There's a price for that, 22.
6. Ensaff, H., Homer, M., Sahota, P., Braybrook, D., Coan, S., & McLeod, H. (2015). Food Choice Architecture: An Intervention in a Secondary School and its Impact on Students' Plant-based Food Choices. Nutrients, 7 (6). 4426 - 4437. Retrieved from <https://pdfs.semanticscholar.org/0dc9/b9f7a054aa1603e8abbf0c6146f52f339a84.pdf>
7. Fao. (2019). Empowering Consumers To Make Healthy Food Choices And Support Sustainable Food Systems. Retrieved from <http://www.fao.org/3/CA2791EN/ca2791en.pdf>
8. Franco, Z. (2018, July 20). Guiding Principles for Choice Architecture. Retrieved from <https://medium.com/@Zekefranco/guiding-principles-for-choice-architecture-aeabda66569c>
9. Johnson, E. J., Shu, S. B., Dellaert, B. G., Fox, C., Goldstein, D. G., Häubl, G., . . . Weber, E. U. (2012). Beyond nudges: Tools of a choice architecture. Mark Lett, 23:487-504.
10. Joy, C. (2014). descriptive-method.
11. Ministry of Agriculture and Forests. (2017). Market Study of milk, Yoghurt and Gouda Cheese in Thimphu. Market study of milk, yoghurt and gouda in Thimphu-DAMC, MoAF, 1-8.
12. NSB. (2012). Bhutan Living Standard Survey 2012. Retrieved from <http://www.nsb.gov.bt>: <http://www.nsb.gov.bt/publication/files/pub1yo10667rb.pdf>
13. NSB. (2017). Bhutan Living Survey 2017. Retrieved from <http://www.nsb.gov.bt/publication/files/pub2yo10667rb.pdf>: <http://www.nsb.gov.bt/publication/files/pub2yo10667rb.pdf>
14. Oorschot, K. V., Haverkamp, B., Steen, M. V., & Twist, M. V. (2013, March 20). Choice Architecture. Retrieved from <https://www.nsob.nl>: https://www.nsob.nl/wp-content/uploads/2016/01/NSOB_Choice-Architecture-web.pdf
15. P.Larrick, A. R. (2015). Choice architecture. Emerging trends in the social and behavioural sciences, 1-2.
16. Phangchung, Dorji, P., Sonam, T., & Pelden, K. (2014). Smallholder Dairy Farming in Bhutan. Smallholder dairy in mixed farming systems of the HKH, 5-18.
17. Southgate, N. (2010). What choice architecture means for marketing . Journal of the Marketing society.
18. Thaler, R. H., & Sunstein, C. R. (2008). Nudge: Improving Decision about Health, wealth and Happiness. New Haven & Lonon: Yale University Press.
19. Thaler, R. H., Sunstein, C. R., & Balz, J. P. (nd). Choice Architecture. Retrieved from <https://www.sas.upenn.edu>: <https://www.sas.upenn.edu/~baron/475/choice.architecture.pdf>
20. Topuk, Ş., & Sezer, Ç. (2015). SOME QUALITY CHARACTERISTICS OF KARS GRAVYER CHEESE. The Journal of Food, 40(2), 69-75. .
21. Tversky, A. (1972). Elimination by Aspects: a Theory of Choice. Retrieved from <http://www.gatsby.ucl.ac.uk>: http://www.gatsby.ucl.ac.uk/~dilan/sharefiles/Tversky_1972.pdf
22. USDA. (2015). Dairy and Products Annual. Retrieved from <https://gain.fas.usda.gov>: https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Dairy%20and%20Products%20Annual_Moscow_Russian%20Federation_10-15-2015.pdf
23. Vanderveer, D. (1984). Paternalistic Intervention The Moral Bounds on Benevolence. Princestone University press.
24. Wood, P. (2015, Sep 24). The Power of Choice Architecture. Retrieved from <https://performancein.com>: <https://performancein.com/news/2015/09/24/power-choice-architecture/>
25. Zhao, M. (2018). Choice Architecture in Consumer Financial Decisions. Review of Behavioral Economics, 417-437.