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Evaluation of Standard of Oil by Observing Standard Operating Procedures (SOP) of the Fried Food Processing

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Abstract

The Standard operating procedures (SOP) is concise, comprised document of policies and procedures, it delivering the basic fundamental principles, operations and deterioration. Standard operating procedure satisfies the purpose of prevent contamination of food by raw material purchase, food preparation, storage, foodservice workers, and delivery. Definite procedures are framed to follow in work. Good quality procedures and work instructions grant an approach towards commune and apply constant values and exercises within every business sector or organization. In Dindigul area fried food units standard operating procedureas has evaluated.

Keywords: *Standard operating procedure, Dindigul, Good quality products.*

1. Introduction

Standard Operating Procedure is the set of written instructions, which document a food industry's routine action. As defined by Stup R (2002), Standard Operating procedure is a set of steps to be followed by a person or group of people must perform in order to complete a job by removing variation. According to United States Environmental Protection Agency, SOP is a set of written and detailed instructions that document a routine or repetitive activity followed by an organization to achieve uniformity of the performance of a specific function. The European Medicines Agency (2002), also defined in the similar manner. De.Treville S *et al,* (2012) defines SOP as a process document which elaborates the way a person shall perform a given task. As narrated by Zimmerman JF in The Importance of Standard Operating Procedures for Investigators, (1999), SOP also helps in ensuring compliance, accountability of the organisations.

Julie A. Caswell *et al* (1998) enlightened in oxford academic forum regarding the ways by which food safety is getting affected by our unaware attitudes and handling practices and narrated the role of food safety management in the food preparation units. Laurian JUnnevehr *et al* (1999) explained in detail about the role of SOPs in every food production units in correlation with economic implications. Ramli et al, (2012), focused in their view on standard operating procedure in foreign countries. Malaysia is biggest area in shipping, transportation of goods. Specific to food manufacturing plants, the term SOP is commonly applied throughout the production of food starting from procurement of raw material to final product. For all processes, jobs or activities, the term SOP is reserved. SOP not only helps to adopt proper procedure to carry out the task but it helps also in training the person to carry out the specific process so that it will reduce the monitoring efforts and also it develops confidence among the team that carryout the function to end with success as narrated in www.economywatch.com.

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The development and implementation of SOPs are integral part of a successful food safety, quality and sanitation system, as they provide individuals with the information required to properly perform their jobs. According to Biologic Technological Applications (EBTE) consultant (2012), SOP will not be meant only for major organisation but can be adopted by even small units to carry out minor tasks. De Treville et al.(p.232) elaborated that SOP also helps to ensure the uniform performance of all the participants who carry out the task resulting in uniform and consistent output.

In addition, the use of SOPs encourages excellence through unfailing implementation in process, task or job. Also, if clearly written, SOPs and SSOPs can minimize miscommunication and variation between individuals or organizations. The term SOP may also be used interchangeably with "protocol," "job instruction" or "work instruction."In an industrialized atmosphere, the most understandable example of an SOP is the step by step production line procedures used to make goods as well to train staff. An SOP, in fact, defines expected practices in all businesses where quality standards exist. SOPs are policies, procedures and standards the FBO needs in the operations, marketing and administration disciplines within the business to ensure food safety.As mentioned by Stup R, (2001), the preparation of SOP shall be included the inputs of all participants to make it an effective one to end with success.

2.1.1. Type of Sale

The fried food is meant for	No.	%
Retail sale	**14**	**19.2**
Only whole sale	**13**	**17.8**
Both	**46**	**63.0**
Total	**73**	**100.0**

Table 2.1.1 Nature of the Sale

Figure 2.1.1 Nature of the Sale

Lars Esbjerg *et al.*,(1998)concludes their paper with a discussion of administrative and hypothetical problems. In general retail is lower sale per day or annum but whole sale is higher comparatively, but quality and repetitive sale, consumer satisfaction are available only in retail, finally the proposed that in the long term, close relationship, number of specific consumers and requirements fulfilments only in retail sale alone. Table 2.1.1 represents the Nature of the sale for which the fried food was prepared. In Dindigul corporation majority of the units (46) meant their product for both retail and wholesale. The units which were preparing comparatively large quantity, they meant their product only for wholesale, in Dindigul it is around 13 units. 14 units were doing only retail sale.

2.1.2. Nature of the oil used for frying:

In Dindigul there exists mismatch in the name of oil between the actual and by which it is called. On observation it was found that the food handlers did not use the term Refined palm ole in but use only palm oil. Both are different in nature and have different standards under Food Safety and Standards (Food Products Standards and Food Additives) Regulations,2011.Even at the time of purchase they use the name as Palm oil. But the oil vendors only know that the nature of the oil is refined palm oil.

Table 2.1.2 Nature of the Oil used for frying

Nature of the used for frying	No.	%
Refined palm olein oil	71	97.3
Refined sunflower oil	2	2.7
Total	**73**	**100.0**

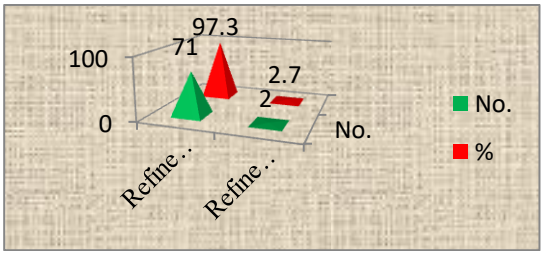

Figure 2.1.2 Nature of the Oil used for Frying.

Figure and the table depict that most of the units (71) in Dindigul Corporation were using refined palm olein for frying and to prepare fried food. Only 2 units among 73 units were using Refined Sunflower oil for frying. The food handlers using sun flower oil for frying also not aware of exact name of the oil.They use the name as refined oil instead refined sunflower oil. They did not know that it was prepared by refining the sunflower oil.

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2.1.3. Purchaser of the oil

Table 2.1.3 Person Purchasing the Oil

Purchaser of the oil	No.	%
Owner of the unit	2	2.7
Person working in the unit	71	97.3
Total	**73**	**100.0**

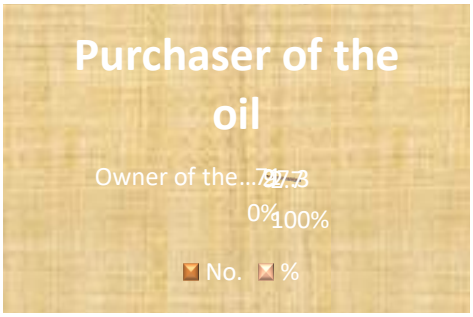

Figure 2.1.3. Person Purchasing the Oil

Table 2.1.3 shows the purchaser who purchased the oil for frying. Most of the unit's 97.3in percentage were purchasing oil for frying through the labour / worker working in the units. The owner of the units was purchasing the oil directly in 2.7 percentage of units.

2.1.4. Place of Purchase of the Oil

In Dindigul Corporation, the street sale of oil is very minimum. Only in rural areas still the street vendors are there. As per food Safety and Standards Act, 2016, oil shall be sold only in packaged condition.

Table 2.1.4 Place of purchasing Frying Oil in Unit

Place of purchase of oil	No.	%
Street vendors	5	6.8
Retail shop	30	41.1
Wholesale	38	52.1
Total	**73**	**100.0**

Figure 2.1.4 Place of purchasing Frying Oil

Around 38 units were purchasing their frying oil from the wholesaler, 30 units from retail shop and only 5 units did the purchase from Street vendors. The bar chart represents the percentage of place of purchase.

2.1.5. Nature of the oil containers at the time of purchase:

Since oil is sensitive to heat and light, the container of the oil plays a vital role in quality and safety of the oil. Evaluation of this parameter would give a view on the quality and safety of the oil at the time of purchase.

Table 2.1.5 Nature of the Oil Container at the Time of Purchase

Nature of the container	No.	%
In loose condition	11	15.1
Pouches	31	42.5
Tins	31	42.5
Total	**73**	**100.0**

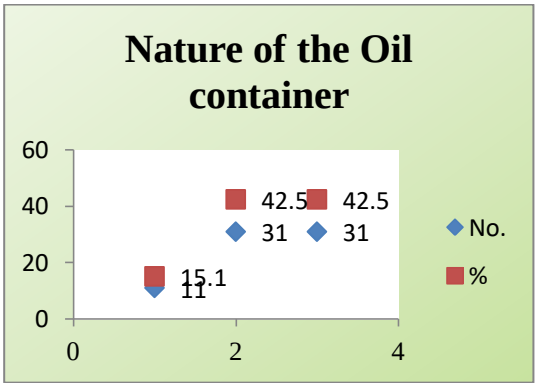

Figure 2.1.5. Nature of the Oil Container at the Time of Purchase

In Dindigul Corporation the fried food units made their purchase of oil in three types of containers, which were depicted in Table 2.1.5.Out of 73,11 units were purchasing in loose condition, 31 units were purchasing in pouches, and remaining 31 were purchasing in Tins. Figure 2.1.5 represents that 15.1 percentage ofunits had a practice of purchasing oil in loose condition, 42.5 percentage of units purchased oil from pouches and in tins.

2.1.6. Nature of the Tin if the oil is Purchased in Tins

The 31 units that purchased their frying oil in tins were observed further to evaluate nature of the container. Most of the oil units that are purchased in tin are reused for purchasing fresh oil. The fresh tin which were packed and sold by the manufacturer were cleaned and reused for further packing and for sale. Once the fresh tin after using the oil contained in it were either returned to the manufacturer or the

units itself clean the tin and would be reused after cleaning for further purchase of new oil.

Table 2.1.6. Nature of the Tin

Nature of the tin container	No.	%
Already used for storing oil	23	74.1
Fresh	8	25.9
Total	**31**	**100.0**

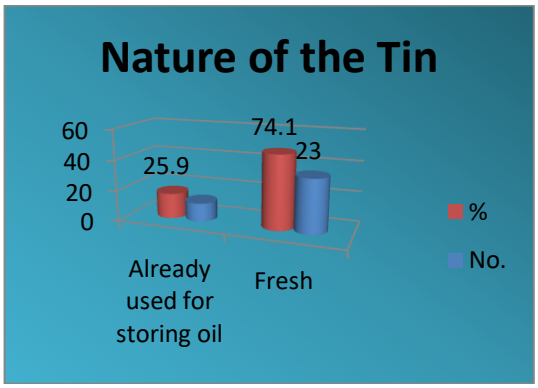

Figure 2.1.6. Nature of the Tin

Among 31 units, around 23 units were reusing the same tin for at least 5 to 8 times for the purchase of fresh oil. Remaining 8 units were purchasing the oil in fresh tins and they utilized the empty tins for storing oil at their preparation unit itself. The percentage of usage of fresh tins and reused tins are represented in the chart and they are 74.1 and 25.9 respectively.

2.1.7. Nature of the Seal of the Container at the Time of Purchase:

Most of the reused tins have only traditional seal like banana tree hunks or dummy tin seal. Only the fresh oil purchased in pouches and tins alone had any one type of seal. The purchase in loose did not have any type seal.

Table 2.1.7. Nature of the Seal of the Container

Nature of the container seal	No.	%
Without Seal	11	15.1
With Traditional seal	11	15.1
With Company seal	51	69.9
Total	**73**	**100.0**

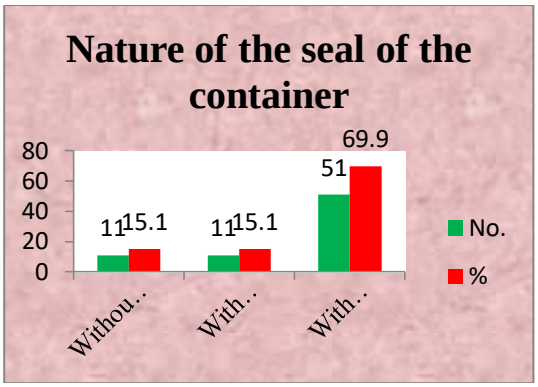

Figure 2.1.7 Nature of the Seal of the Container

Around 51 units had purchased the oil with the company seal ie as sealed by the manufacturer, 11 units they had purchased the containers with traditional seal and 11 units had purchased the oil in loose condition which did not have any type of seal.As expressed in chart 69.9 percent of units do their purchase of oil with proper seal, 15.1 percent units purchase with traditional seal and without seal.

2.1.8. Label declarations on the pack of the oil at the time of purchase

Label is the important factor in any packaged food. As per Food Safety and Standards (Food Packaging and Labelling) Regulations, 2011 every packaged food shall carry a label containing mandatory information regarding the manufacturer, shelf life, ingredients. It shall not have any deceptive or misleading statements. It is observed that majority of the oil packed in pouches were with the label as per FSS Regulations. But the tins were having only a part of it.

Table2.1.8.Label Declaration on the Oil Container

Label on container	No.	%
Not labeled	16	21.9
Partially labeled	9	12.3
labeled as per FSS Regulations	48	65.8
Total	**73**	**100.0**

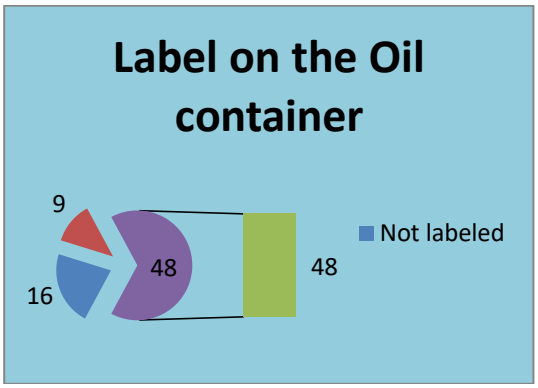

Figure 2.1.8. Label Provision of Purchased Frying Oil

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Table 2.1.8 shows the study output in Dindigul Corporation on labelling system of oil at the time of purchase. Around 48 numbers of units were purchasing the oil with labelling declaration as mandated by FSS Regulations. 9 numbers of units were purchasing the oil which partially followed the labelling system, and 16 numbers of units were purchasing label without any label declarations. Figure 8 demonstrates the percentage of label provision utilized by fried food units as chart model. Nearly 65.8 percentage of fried food units located in Dindigul Corporation were complying with labelling provisions while purchasing oil, 12.3percentage units were purchasing partially labelled oil whereas21.9 percentages of units were purchasing oil without any mandatory labelling requirements.

2.1.9. Verification of shelf life of the oil at the time of purchase:

Table2.1.9 Checking of Shelf life of the Frying Oil

Verification of shelf life	No.	%
No	37	50.7
Yes	36	49.3
Total	**73**	**100.0**

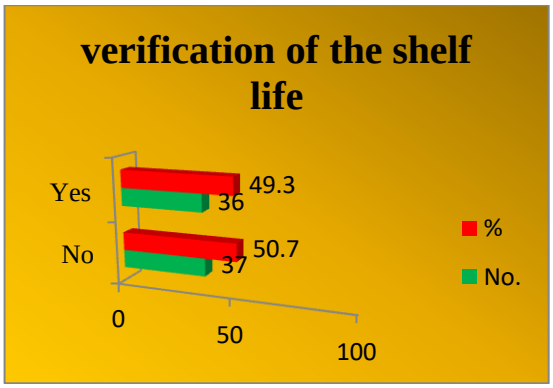

Figure2.1.9. Checking of Shelf life of the Frying Oil

Every time while purchasing the frying oil it is responsibility of the purchaser to check shelf life of the oil as declared by the manufacturer. Table 2.1.9 shows the assessment of units that check for shelf life in frying oil at the time of purchase. 37 numbers of units were not verifying the shelf life of oil while purchasing, only 36 numbers of units were aware of it and checking the same. As represented in 9, around 50.7 percentage of units were not verifying and only 49.3percent of the unit alone were verifying the shelf life at purchase.

2.1.10. Practice of obtaining Receipt for purchase:

Receipt is the acknowledgement /proof of purchases. A receipt can be used in the form of printed document either hand written in paper.

Table 2.1.10. Receipt Systems for the Purchase of Oil

Practice of obtaining receipt	No.	%
No receipt	10	13.7
Paper chit	28	38.4
Proper bill	35	47.9
Total	**73**	**100.0**

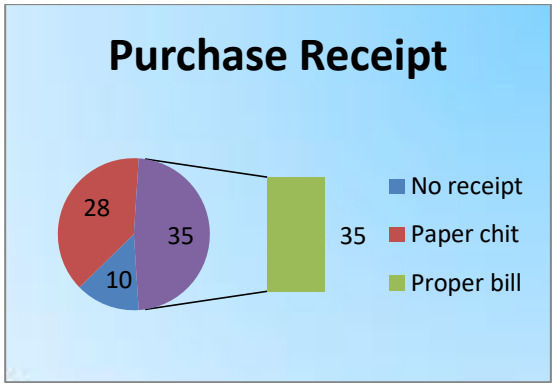

Figure 2.1.10. Receipt Systems for the Purchase of Oil

Many Regulations including FSS Regulations are insisting the issuance of receipt at the time of sale of any article. Table 2.1.10 and Figure 2.1.10 show that around 35 units in numberand 47.9 in percentage were obtaining receipt for their purchase of oil whereas 28 units in number and 38.4 in percentage were obtaining only paper chit without the signature of the vendor and 10 in numbers and in 13.7 in percentage of units were not obtaining receipt this is attributed to the nature of the vendor. Mostly vendors with well-established shops were providing receipt to their consumers.

2.1.11. Frequency of Purchase

It was observed that frequency of purchase mainly depends on the need, financial position and storage capacity of the fried food units.

Table2.1.11.Frequency of purchasing Frying Oil

Frequency of purchase	No.	%
Monthly	15	20.5
Weekly	43	58.9
Daily	15	20.5
Total	**73**	**100.0**

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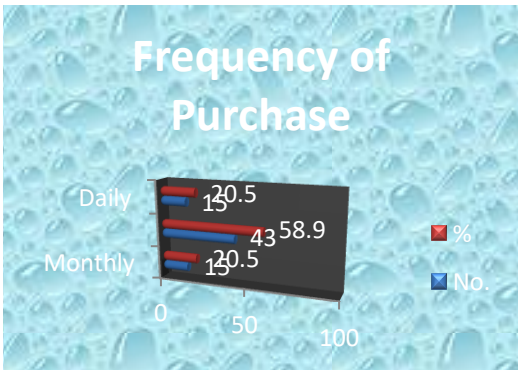

Figure 2.1.11.Frequency of purchasing Frying Oil

Table 2.1.11.shows the frequency of purchasing frying oil. 15 units were purchasing daily, 43 units were purchasing once in a week and 15 units were purchasing once in a month. From Figure 10, it is vivid that 20.5 percentage of units were small in capacity and their day capacity is very minimum around 60 kg and they were purchasing the oil for their daily use as per the need. Around 58.9 percent of units were purchasing once in a week and they had minimum storage facility whereas 20.5 percent of units since their production capacity is more and they have adequate storage facility they were purchasing their frying oil once in a month.

2.1.12. Nature of the storage container:

All fried food units had to store either the fresh oil for use or the used oil for further use. The oil is to be kept in properly closed appropriate container to prevent auto oxidation in turn rancidity.

Method of storing oil	No.	%
open container	30	41.0
kept in the container as purchased	14	19.2
closed container	43	59.0
Total	**73**	**100.0**

Table 2.1.12.Nature of Storage Container

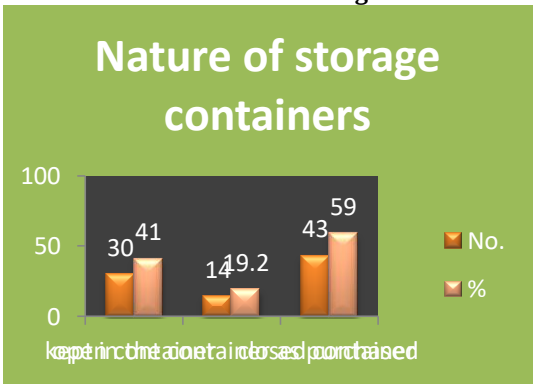

Figure 2.1.12. Nature of Storage Containers

Concentrating on frying oil storage container, Table 2.1.12 shows that 43 units were using closed containers and 30 units were using open containers for storing the oil. The bar char in figure 2.1.12expresses that 51 percentage units and 49 percentage were using closed and open containers for storing oil respectively. Storing oil in open container is highly susceptible for auto oxidation.

2.1.13. Place of Storing the Oil

Table 2.1.13. Place of Storage

Oil Storage place	No.	%
In the kitchen	20	27.4
In store room	42	57.5
Not storing	11	15.1
Total	**73**	**100.0**

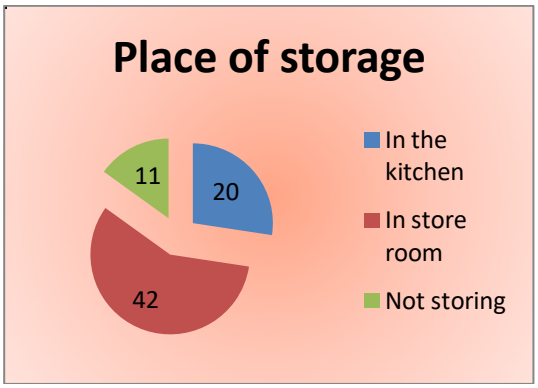

Figure 2.1.13. Place of Storage

The storage of oil is one of the key factors to maintain the quality of the oil. In Dindigul, 11 numbers of units were not storing the oil, they purchase their daily use and no need of separate storage.20 numbers of units were storing oils directly in the kitchen itself not havening separate storage facility. When storing the oil in the kitchen itself, due to the prevailing high temperature in the kitchen at the time of processing, it would be highly susceptible for oxidation. The chart in Figure 2.1.13 shows the percentage of units that 57.5 were storing in store room and 27.4 were storing the kitchen and 15.1 were not storing the oil.

2.1.14. The place of keeping the stored oil

Table 2.1.14.Place of fried oil storage

Place of keeping used oil	No.	%
Near the choola	11 -10	16.1
Normal room	48-47	75.8
Dark place	6 -5	8.4
Total	**65-62**	**100.0**

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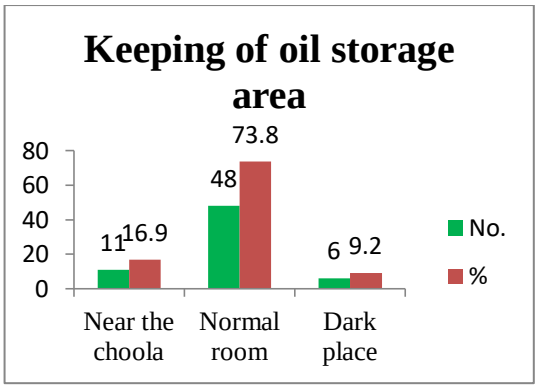

Figure 2.1.14.Place of fried oil storage

Keeping oil in dark place is highly recommended by food authorities in order to prevent the access of the light into and to prevent auto oxidation which affects the standard and quality of the oil. Table 2.1.14 shows the place of keeping stored oil, only 5 units were storing in the dark area. 47 units were storing in normal area in the normal room without refrigeration whereas10 units were keeping the oil near choola. Which would severely affect the quality due to exposure to heat? Figure 2.1.14 demonstrates the bar chart manner of place keeping frying oil. 75.8 percentages of units have kept in normal room, 8.4 percentages of units have kept in dark place and 16.1 percentages of units have kept at the choola.

2.1.15. Frequency of Sediment Removal

Sediment removal frequency	No.	%
After completion of frying	19	26.0
After one batch of frying	21	28.8
Then and There	33	45.2
Total	**73**	**100.0**

Table 2.1.15.Frequency of Sediment Removal

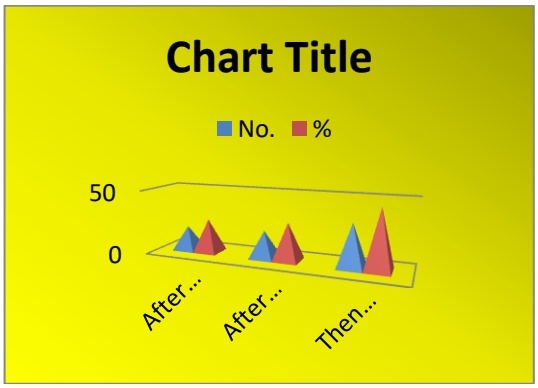

Figure 2.1.15. Frequency of Sediment Removal

The food on frying would emit the ingredients into the frying medium i.e into the oil. Many studies have revealed that the sediments catalyse the degradation of oil. Hence the sediment removal while frying the food also play vital role in the degradation of oil during the process of frying. Table and Figure2.1.15 shows the 33 units (45.2 %) were removing the sediments then and there during frying which is highly advisable, 21 units (28.8%) were sediments after completion of one batch of frying. 19 units (26%) were removing the sediments only after the completion of total frying of the day. This would not be as advisable practice.

2.1.16. Source of Food Colours

Source of food colour	No.	%
Chemicals	68	93.1
Both	5	6.9
Natural	0	0
Total	**73**	**100.0**

Figure 2.1.16. Source of Food Colours

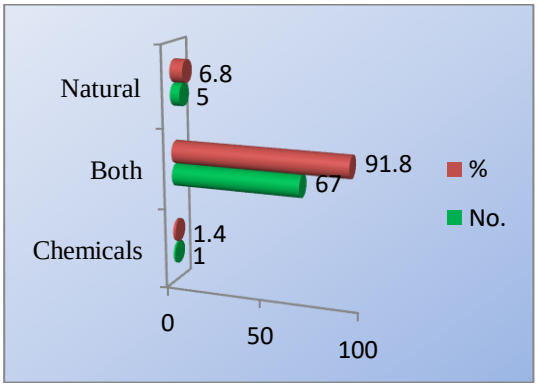

Figure 2.1.16. Source of Food Colours

Majority of the food colours used in fried food units were of chemicals. Regularly they were purchasing the colours based on their brand name without knowing the chemical composition. They were using it to add colour to the food. The chemicals added in the food would got into the frying oil and would act as a stimulant or catalyst causing faster degradation of the oil. Turmeric is the major natural colour and most of the units were using it. Table and figure2.1.16 shows that 5 units (6.9 %) alone were using both natural and chemicals as food colours, 68 units (93.1%) were using only chemicals as food colours that were available in various brands. None of them were using natural colours.

2.1.17. Practice of Adding Colour

Table 2.1.17. Practice of Adding Colour

Practice of adding colour	No.	%
Approximate	22	30.1
As practiced	51	69.9
Total	**73**	**100.0**

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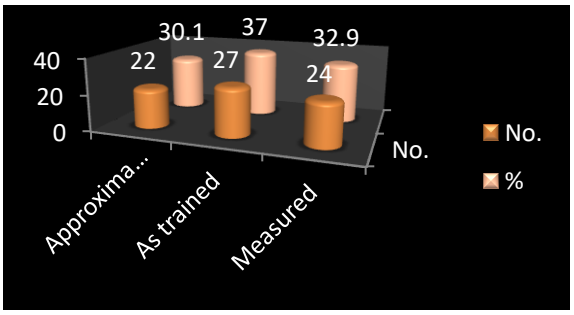

Figure 2.1.17. Practice of Adding Colour

Colouring agent is one of the food additive which adds colour to the food. In Dindigul Corporation, all the fried foods were added with colour. The nature and quantity of the colour varied with FBO to FBO. The quantity was not measured but based on the practical knowledge and experience they added the colour approximately. Table 2.1.17 shows 22 units were adding approximately depend on the quantity of the raw material taken for the preparation and 53 Units as based on their regular practice. In percentage it was 30.1 and 69.9 respectively as in the figure 15.

2.1.18. Reusing the same Oil for Frying

Using the same oil for frying for	No.	%
more than 5 times	21	28.8
more than 3 times	48	65.8
one time	4	5.5
Total	**73**	**100.0**

Table 2.1.18. Assessment of re-usage of the same oil

J.B. Rosseli *et al* (1998) explained the impact of reusing on oil quality.

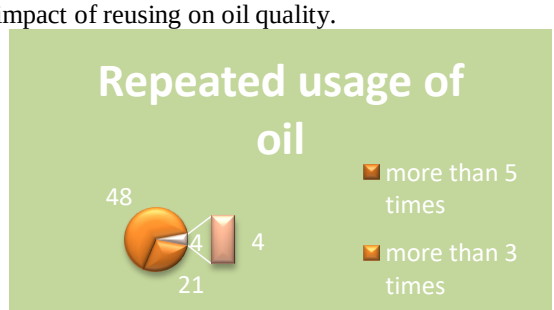

Figure 2.1.18.Assessment of re-usage of Frying Oil

Most of the FBOs in Dindigul Corporation concentrated on the cost factor not on the quality factor while using the oil for frying. Present study revealed as in the Table and Figure 2.1.18that out of 73, 21 units 28.8% in percentage were using the same oil for more than 5 times for frying. 48 units 65.8% in percentage were using for more than 3 times and only 4 units 5.5 in percentage were using only one time for frying.

2.1.19. Period of keeping the same oil for Frying

Keeping the same oil for frying	No.	%
more than a week	9	12.3
3-7 days	25	34.2
1-3 days	39	53.4
Total	**73**	**100.0**

Table 2.1.19. Period of keeping the same oil

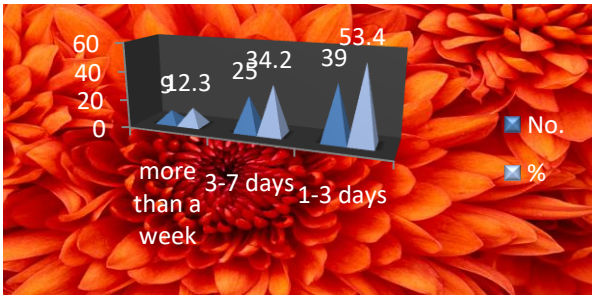

Figure 2.1.19. Period of keeping the same oil for Frying.

On observation as reflected in the Table and Figure 2.1.19, Out 73 units 39 were keeping the same oil for one to three days. 25 units were keeping for three to seven days, 9 numbers of units were keeping more than a week which were in percentage as 53.4, 34.2 and 12.3 respectively.

2.1.20. Methods adopted for filtering the used oil before the reuse:

Method of filtration	No.	%
No method	41	56.2
cloth & Sieve filtration	32	43.8
Total	**73**	**100.0**

Table 2.1.20. Method of Filtration

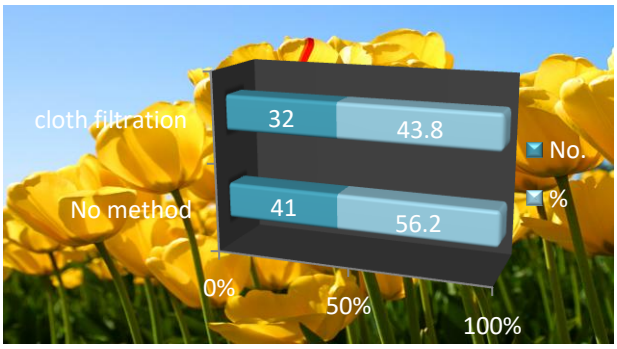

Figure 2.1.20. Method of Filtration

R. Patel *et al*,(2010) elaborated the various method of filtration adopted for oil including cloth filters, metal filters, bag filters and belt filters with that narrated the benefits of each. Applications of ultra-filtration also been discussed in detail. In Dindigul Corporation FBOs had adopted only Sieve filtration followed by Cloth filtration. Present study as expressed in Table and Figure 2.1.20 Show the methods of filtrations adopted in fried food units located in our study area. 41 numbers of units had

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adopted no method in percentage it was 56.2. However 32 units had adopted sieve filtering followed by cloth filtration which is 34.8 in percentage. By this way first they filter the solid particles by sieve filter further the semi-solid and colloidal particles were removed by cloth filters. Every time while they reuse the same oil for frying, they carry out the filtration.

2.1.21. Disposal of Used Oil

Method of disposal	No.	%
Mixing with fresh oil	21	28.8
Used for other food preparations	26	35.6
Discard	26	35.6
Total	**73**	**100.0**

Table 2.1.21. Disposal of used Frying Oil

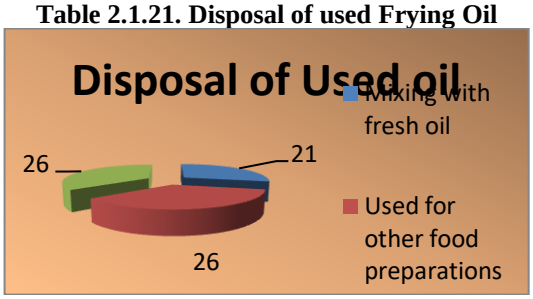

Figure 2.1.21. Disposal of used Frying Oil

As studied, Table 2.1.21 summarized the data on handling of used frying oil. 21 numbers of units were for topping up the fresh oil during process with old oil, 26 units used the old oil for secondary process/supplementary or co process. On the other hand 26 units were discarding the used oil after frying. Figure 19, bar chart represents the percentage of the same as 28.8, 35.6 and 35.6 respectively as expressed in numbers above.

2.1.22. Periodicity of washing frying pan

Periodicity of washing frying pan	No.	%
Not washing	1	1.4
Monthly	36	49.3
Weekly	29	39.7
Daily	7	9.6
Total	**73**	**100.0**

Table 2.1.22.Washing frequency of frying pans

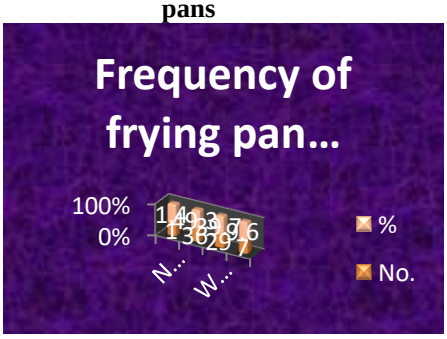

Figure 2.1.22.Washing frequency of frying pans

The sediments getting stuck on the frying pan also have its role in degrading the oil while frying. Frequent cleaning of the frying pan would reduce the deposition of sticking fats and scales subsequently reducing the rate of degradation of the oil while frying.

Table 2.1.22 exhibits that 7 units were washing their frying pans daily, in percentage it was 9.6. Around 29 units were washing their frying pans on weekly basis in percentage it was 39.7. Totally 36 units were washing on monthly basis in percentage it was 49.3. Only one unit was not washing their pans so far though it has been processing since one year.

2.1.23. Cleaning agent used to wash frying pan

Cleaning agent used	No.	%
Ash with sand	30	41.7
Soap/ detergents	43	58.3
Total	73	**100.0**

Table 2.1.23. Type of cleaning agent used in fried food units

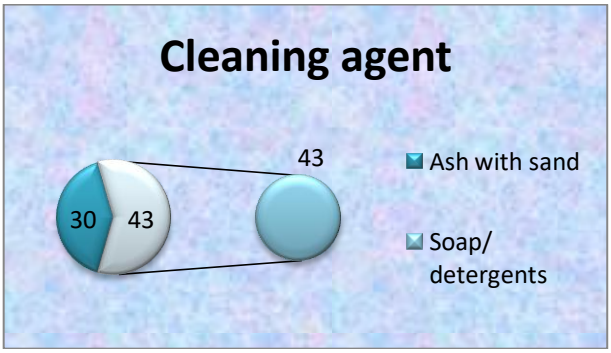

Figure 2.1.23 Type of cleaning agent used in fried food units

Cleaning of frying pans and tools shall be given attention since they were sticky in nature. Similarly the chemicals used for cleaning also to be removed completely from the frying pan. If not removed properly it also would undergo chemical process and act as catalyst in the process of degradation of oil. In Dindigul as per Table 2.1.23 and Figure 2.1.23, around 43 units were using soap and detergents for cleaning, in percentage it is 58.3. Further 30 units were using traditional cleaning agent like ash with sand for good cleaning, in percentage it is41.7 and they justified that they would clean and remove the stickiness easily.

Conclusion

Most of the fried food units (69.9%) are located away from the source of contamination, reducing the probability of getting the fried food contaminated and 31.5 percent are located appreciably away from

source of contamination. The quality of the frying oil in terms of Acid Value and Iodine value is independent of the location of the units since there exists no significant between them. On oil analysis it is found that around 34.2 percent of fried food units are using substandard oil in terms of Acid value for frying. This will pose risk to the safety of the food processed with that oil and the health of the consumers. Evaluated the oil Standard in fried food processing units using the tool of standard operating procedures.

Reference:

[1] Stuf R, National Mastitis Council Regional Meeting Proceedings 11-18, (2002).
[2] The European Medicines Agency (2002)
[3] De.Treville S *et al*, Valuing Lead Time Journal of Operations Management (6), 32 (2014)
[4] Julie A. Caswell Mary E. Bredahl Neal H. Hooker, How Quality Management Meta systems Are Affecting the Food Industry, Applied Economic Perspectives and Policy, 20, (2,) 547–557, (1998).
[5] Laurian J. Unnevehr, Food safety issues and fresh food product exports from LDCs, Agricultural Economics 23, 231–240, (2000).
[6] Nasiibah Ramli, Zinatul Zainol, J. A. Aziz, Noor Inayah Yaakob, The Concept of Research University: The Implementation in the Context of Malaysian University System Asian Social Science 9(5) (2013)
[7] De.Treville S *et al*, Valuing Lead Time Journal of Operations Management (6), 32 (2014).
[8] R. Patel, D. Shah, Bhupendra Gopalbhai Prajapati, M. Patel ,Overview of industrial filtration technology and its applications, ,Indian Journal of Science and Technology 1121-1127, (2010).
[9] A Guide to the Food Safety Standards, Third Edition November 2016.
[10] Food Products Standards and Food Additives) Regulations, (2011).