# The Impact of Modern Coconut Oil Packaging Training on Consumers’ Behaviors

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**ABSTRACT**

The local coconut oil producers at Kisutu Market, Dar es Salaam faced difficulties in deploying the modern packaging components due to knowledge and skills gaps henceforth low market value was experienced greenlighted the training for awareness creation. Assessment on impact of the training on the changes of the producers’ practices and its significances to the consumers were made by engaging 112 respondents categorically distributed into 102 coconut oil consumers and 10 producers. Data were collected using four ranked Likert scale questionnaire and semi-structure interview followed by the descriptive analysis. The findings proved that the training assisted the local coconut producers to utilize modern packaging henceforth impacted the consumers behaviours; enhanced communication; improved market experiences; fostered branding initiatives; assurance to the product quality and quantity; competition differentiation; attracting the shelves and easier pointing the coconut oil during purchasing under pressure; increased competitiveness of the coconut oil choices in supply chain. Moreover, the contributions are made to the literature of coconut oil, local producers and consumers and practitioners to continue to invest in awareness creation through trainings, accommodation of new knowledge and skills pertained the deployment of innovative packaging that positively turn the image of coconut oil product for valuable market and sustainability.
1. Introduction

Worldwide, there are approximately 12.3 million ha of cultivated coconut globally mainly being grown in the island nations and nations with beaches (GlobalData, 2018; Prades et al., 2016). Statistically, the coconut plant is highly grown along tropical belt in 93 countries, whereas 3.4% are from Africa (FAOSTAT, 2015; Deen et al., 2021). Indonesia leads the coconut oil production (Okorie et al., 2022) at the same time India has been ranked as the second country in growing coconut (Devi & Ghatani, 2022). In Africa, Tanzania is among the leading countries in coconut production being in eleventh position of world producing about 530,000 tonnes annually followed by Mozambique, Ghana, Kenya, Nigeria, Madagascar, Cote d’Ivoire, Benin, Guinea, and Togo (FAOSTAT, 2015). Statistically in Tanzania, in tonnes the Coastal region (25,357) is leading in coconut oil productions followed by Tanga (24,528) and Lindi (10,223) (Tanzania National Bureau of Statistics (NBS), 2020). Coconut fruits are the output of coconut palm formulated with the percentages of kernel (51.7), shell (38.5) and water (9.8) (Patil & Benjakul, 2018).

Apparently, the coconut fruits are globally apprehended for extracting different products possessing the health benefits in provision of nutrients such as fat, dietary fiber and protein being useful for beverages and food preparations (Divya et al., 2023); in the same vein the extracted coconut fruits possessed highest percentage of Lauric Acid purities (Deen et al., 2021; Ng et al., 2021). Moreover, the pharmacologist proved that coconuts products comprised of powerful anti-microbial mechanisms that works as antiparasitic, antifungal, antiviral antibacterial, and antioxidant (Devi & Ghatani, 2022; Joshi et al., 2020). Significantly, the coconut oil is evidently being advantageous in the skin and hair care, stress relief, massaging, weight loss, maintenance of cholesterol level, treatments of Alzheimer’s disease immunomodulatory effects and cardiovascular treatments (Amra et al., 2022; Zeng et al., 2022).

The free-market trade practices in the pomade products coconut oil being inclusive, open doored coconut oil producer around the world to revamp the traditional local market practices (Bell, 2022) as local producers are less bounded with marketing protection rules and procedures (Azzari et al., 2023). Coconut oil consumers are experiencing dynamics in decision making particularly in making choices at the market that is full of different branded-packaging modals (Srivastava et al., 2022; Tran & Nguyen, 2022). Furthermore, low quality coconut packaging has been practiced by the local producers leading less attributal influences to the consumers’ psycho motive acceptance (Togawa et al., 2019). Likewise, the product in poor package faces difficult to be attractive and communicable to initiate consumers hence dynamisms in decision-making to purchase (Cascini et al., 2020; Panda et al., 2022).

Similarly, the poor coconut oil packaging qualities signified the consumers’ psycho-motive acceptance or rejection in purchasing behavior (Achor et al., 2020). Certainly, the traditional-local coconut oil packaging in competitive market is winged to the low profit making, as well as affecting the supply chain and sustainability (Hyder et al., 2023). Consequently, the mentioned grounds alarmed the need for local coconut oil producers to change mindset in creation and utilization of well-designed branding packages for a purpose of raising consumers’ loyalty (Srivastava et al., 2022; Tran & Nguyen, 2022). Likewise, the local producers and sellers need to understand that, packaging are powered psychological catalysts working as the sales promotion for motivating consumers on the products quality and standards (Behera et al., 2023; Khan & Warraich, 2021; Shukla et al., 2022). Despite the advantages of coconut products, still the extraction and packaging of coconut related products such as oil are done locally due to limited knowledge, skills, awareness and competences (Hyder et al., 2023; Utama et al., 2023).

Certainly, local coconut oil producers and sellers need to be trained on offsetting the marketing practices indicators that are holistically alarming the market growth and sustainability. The curiosity brought in trainings on packaging creativity possessed the power
to drive cognitive realization while real implementation is viable through influencing consumers' decisions making articulated into purchasing behaviors (Rybalko et al., 2023; Tan & Tan, 2023). Consequently, the attractive packages content for capturing new markets share, increased sales volume, market segmentation, pricing differentiations for the same quantity and quality became essential to coconut oil producers (Jiang et al., 2023; Kostov, 2023). Furthermore, training on packaging essentials added value to local coconut oil producers and sellers as were competently capacitated on appropriate requirements including materials design, size, shapes, symbols, colors, product brand names, barcodes, contents about the product, precautions information, life span of the product to mention few (Konstantoglou et al., 2020; Yaşar et al., 2023) for competitive advantages and market sustainability (Azzari et al., 2023; Hyder et al., 2023).

Contextual practices in Dar es Salaam local markets showed that local coconut producers were packing large volume of coconut oils in local big containers that were sold at low prices indicating the problem in the market value. Apparently, the local coconut oil producers experienced the skills, knowledge and competences gaps in extracting and packing coconut oils; relied on the local practices, methods and approaches. Significantly, the locally produced coconut oils were traditionally packed leading difficulties for persuading consumers’ purchasing psycho-motive behavior for drawing purchasing intention. Based on these grounds, training to capacitate local coconut oils producers on packaging components for improvement of the marketing practices were organized and implemented to the selected practitioners (local producers and consumers). The time were given to the practitioners to implement thereafter assessment of the initiatives was made in the selected area at Dar es Salaam city centre. This study intended to respond to the specific objectives that are to:

a) Explore the impact of modern packaging training to local coconut oil producers at Dar es Salaam city centre.

b) Assessing the significances of training on market value for modern coconut oil packaging to consumers at Dar es Salaam city centre.

2. Methods

2.1. Research Method and Study Area

A case study design whereas the qualitative and quantitative data were collected. The study was done at Kisutu Market located at the Dar es Salaam city Centre. The area has been selected as it comprised of good mixture of local coconut oil producers and sellers making the sample of 112 respondents distributed into 10 local coconut oil producers as heterogeneity sample selected through snowball technique; and 102 homogeneity sample comprised of coconut oil consumers selected using quota method. Further, the selected sample was convenient to provide the attitudinal responses on contents trained in the areas of modern packaging, consumers' perceptions, marketing choices, and market value.

2.2. Data Collection Instruments

The qualitative and quantitative approaches were integrated in undertaking the investigation on attitudinal changes after training. The four ranked Likert scale questionnaire was administered for data collection whereas: 1-Strongly Disagree (SD), 2-Disagree (D), 3-Agree (A) and 4-Strongly Agree (SA) and semi-structured interview. The questionnaire composed of sixteen attributes distributed into eight on the impact of modern packaging training to local coconut oil producers and eight on the market value for modern coconut oil packaging from consumers viewpoints. The Likert scale questionnaires were distributed to 102 consumers by researchers three months after the training to get the reflective attitudinal changes. Further, the 20 minutes semi-structured interview were conducted by researchers to
enrich and getting insights information on the impact of training to the consumers behaviors from 10 local producers.

2.3. Data Analysis

The data were processed, manipulated and presented based on its nature. The recorded qualitative data from semi-structured interview were thematically analysed of which the transcription, editing, organized and integration of related themes, and thereafter themes of emerged cases were tabulated and presented through narration and tables. Furthermore, the quantitative data collected through Likert Scale questionnaires were coded, tabulated, edited, and analysed with the aid Microsoft Excel, henceforth findings presented using histograms figures. The researchers engaged into reflective moments to internalize, translate, search patterns and linkage to triangulate the findings based on information revealed by respondents.

3. Results and Discussion

The results and discussion on the impact of modern packaging training to local coconut oil producers and eight on the market value for modern coconut oil packaging from consumers are presented here in.

3.1. Results

3.1.1. Impact of Modern packaging Training to Local Coconut Oil Producers

Based on the semi-structured interview findings, the training on the packaging was significantly changed the practices henceforth altered coconut oil consumers’ perceptions on the product’s quality, authenticity, and attractiveness being determined by package size as one of the local producers narrated: -

……differentiation of packages implied more consumers choices segmentation, during utilization of traditional packaging the big sized with large volume of coconut oil was sold at low price (Local producer 3, Kisutu Market).

Further, was indicated that the training assisted the changing of the practices henceforth influences the consumers of coconut oil to change the perceptions on the old or traditional packaging being outdated compared to modern, considered being sleek and of higher quality as was expressed by producer: -

… Packaging shapes, size and colour means a lot in selection to purchase the coconut oil. Usually, price tag and negotiation followed after being attracted by the outer face of the package. …… selectivity to purchase coconut oil began with package then other attributes follows (Local Producer 1, Kisutu Market).

Apparently, the findings from the Likert questionnaire involved 102 coconut oil consumers on preferences reflecting the changes brought by modern coconut oil packaging training to local coconut oil producers shed lighted that the aspects of package size, color, text and images, quality, pricing, consumption, quantity and quality possessed the positive influences in changing consumers decision making and preferences behaviors as delineated in Figure 1. The findings disclosed that consumers’ levels of agree and strongly agree across the measured attributes were in highly margin with positive skewing (ranging 32 to 55) comparatively to the low margin levels in indicators of disagree and strongly disagree in the measured attributes (ranging 3 to 12).
3.1.2 Market Value for Modern Coconut Oil Packaging

The findings on the impact of training on the market value for modern coconut oil packaging were collected using semi-structured interview and Likert scale questionnaire. The cases emerged during the interview sessions are summarized in Tables 1. The findings showed diverse influential driven behavioral perceptions from local producers leading multi psycho-consumers attributes influencing the decisions to like or dislike the coconut oil packages.

Table 1. Consumer marketing choices on modern coconut oil packages

<table>
<thead>
<tr>
<th>Themes</th>
<th>Attributes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavioral drive based on packaging type</td>
<td>Building Brand name</td>
</tr>
<tr>
<td></td>
<td>Creating Brand Equity</td>
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<tr>
<td></td>
<td>Loyalty</td>
</tr>
<tr>
<td>Criteria draw attention in purchasing</td>
<td>Quality</td>
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<tr>
<td></td>
<td>Healthiness and Value</td>
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<tr>
<td></td>
<td>Authenticity</td>
</tr>
<tr>
<td>Criteria overwhelms traditional packages</td>
<td>Material</td>
</tr>
<tr>
<td></td>
<td>Size</td>
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<tr>
<td></td>
<td>Design</td>
</tr>
<tr>
<td></td>
<td>Information on Label</td>
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<tr>
<td>Criteria for communicating the product</td>
<td>Branding</td>
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<td></td>
<td>Colors</td>
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<tr>
<td></td>
<td>Shapes</td>
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<tr>
<td></td>
<td>Typography</td>
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<tr>
<td>Behavioral on package size affects selling</td>
<td>Brand identity</td>
</tr>
<tr>
<td></td>
<td>Personality</td>
</tr>
<tr>
<td>Packaging as tool for marketing strategy</td>
<td>Differentiation</td>
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<tr>
<td></td>
<td>stand out in a crowded market</td>
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<td>environmental consciousness</td>
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During the interview session the local coconut producers disclosed that coconut oil consumers either select the small sized and morphological well-shaped modern regardless the quantity of the coconut oil found inside and price as was expressed:

… Virgin coconut oils are sold at higher price; consumers don’t care on the price in making decisions to purchase; .... consumers are being attracted and winged with package shapes, colors, size, and material used in designing the package in making decision to purchase the coconut oil (Local Producer 2, 7, Kisutu Market).

Apparently, the consumers’ attitudinal behaviors towards marketing-related aspects measured through Likert scale questionnaire and findings presented in Figure 2. The findings showed that the training of modern packaging initiated the measured attributes of consumer behavior of communication, building new experience, better pricing and branding, effect on quality and quantity, saves for competitors, enable differentiation for purchasing under pressure, offered better choice and increased the supply chain whereby the cumulative lines disclosed that many respondents: between 42 to 52 strongly agreed (SA) and 38 to 47 agreed (A) that their behaviors changed relatively to the reflections brought by the training on new coconut packaging. Considerably, there was relatively low levels of disagree (D) being between 3 to 11 and strongly disagree (SD) being ranging from 3 to 7 respondents.

![Figure 2. Attitudinal statuses on market value for localized coconut oil in modern packaging](image)

Additionally, consumers’ behavioral choices were determined on the package as communication and marketing strategy. The modern coconut oil package was considerable important in the aspects of creation of brand identity, differentiating consumers, producers and sellers’ personalities and assistive in environmental consciousness. Apparently, among the posed response during the interview was:

...Modern coconut oil package has increased the market value as is capacitated to provides the branding information, price of the product, .... as producers we use it as consumers persuasive strategy in differentiating the coconut product quality from the traditional (Local Producer 9, 10, Kisutu Market).
3.2. Discussion

According to the findings, training on modern coconut oil packaging assisted local producers to change the consumers’ subjective norms and attitude towards the product. Moreover, human cognitive behaviors possessed the complexities leading individual differences when it comes to understanding the prediction of individual attitude and social behavior guiding the acceptance or rejections decision making. The findings delineated that training on the coconut oil packaging capacitated and enhanced the changing the communicating product-related information roles; encompassed important information about the coconut products that fostered awareness creation henceforth captured consumers’ attention. Similarly, Di Cicco et al. (2021) found that information carried within the modern packaging enabled creation of the products awareness to consumers, evaluation about the product and drive the articulated preferences. Likewise, the new packaging training enables the local coconut oil producers and consumers to experience changes on the product purchasing circle. Similarly, was cemented by Sarfraz et al. (2022) that appropriate deployment of packaging with detailed components catalyzed alteration of business model as the consumers purchasing decisions are influenced. The implication made by the researcher is that the training on modern packaging enabled the local producers to understands that are served as the communication tool on price, value, affordability, and quality of coconut oil.

Apparently, the researchers observed that training contents of packaging morphology and actual implementation proved the coconut oil consumers preferences being reflexive as the price tagged were not affected by the volume inside packages regardless of being in small size, different shapes and colors. Likewise, Luo et al. (2022); Pang and Ding (2021) observed that the packaging morphology components such as images and shapes are valuable in creation of the brand reputation, safety and differentiating the products hereafter influenced consumers' cognitive perceptions. Subsequently, the researchers apprehended that training on the modern packaging serves in providing the descriptions, ingredients and nutritional information, and certifications of coconut oil aligned with consumers’ perceptions values and preferences. Further, was revealed by the findings that training on new packaging material, design, labelling information was positively influenced consumers' perceptions as were convinced with the quality, authenticity and expected benefits that built loyalty towards the coconut oil. Also, the training on packages enabled capacitation of local producers in building positive trusts that fostered coconut oil self–branding hence impacting consumers’ engagement and connectivity (Ibrahim & Aljarah, 2023). The implication is made on the grounds that the packaging training to local producers initiated the re-alignment of the coconut oil branding images and features as valuable marketing technique to drive the consumer preferences and behaviors.

Apparently, was disclosed by Srivastava et al. (2022) and Yaşar et al. (2023) that the product taste, smell, and texture contributed to the overall appeal and value of the products that loosen market share and value. Consequently, the same was contributed by Azzari et al. (2023) and Panda et al. (2022) that training on the packaging components such as color, design, packaging material, and brand label information are significant attributes for influencing consumers’ purchasing behavior. The researchers emphasized to the local coconut producer to continue using modern coconut oil to increase market value, supply chain and market sustainability. Experience revealed that, human purchasing behaviors at the market place are complex particularly in making decision as consumers embraced intrinsic subjectivities that are reflected extrinsically in procedures of making choices for the coconut oil purchasing. Consequently, the value reflected on the coconut oil after packaging training disclosed the levels of consumers complexities in decision making particularly in positively catalyzing the increased market choices, building familiarity and trust. Subsequently, Rai et al. (2023) insisted on consumer internal stimuli and contextual external variables existence as important attributes to foster product valuing for purchasing decision making. Based on the
finding perspectives, the well-designed modern packages training empowered local producers with components that drives local consumers’ internal stimuli, increased contextuality of coconut oil external variable on the market shelves for visibility, easily noticeable, facilitated differentiation and choices making. Certainly, Srivastava et al. (2022) aligned that packaging design are significantly influential to consumers’ perception during product differentiation.

Similarly, was cemented by Achor et al. (2020) that clear understanding of the packaging design training and well implementation are positively capacitating the consumers’ emotional responses and purchase behavior within the market context. The implication was made by the researchers on the finding that, training on innovative modern coconut oil packages are considerable as important strategies for local producers to become relevant in the competitive market. Likewise, the emphasize is made by the researchers on modern packages training being encompassed with components with detailed information for coconut oil branding qualities including quantity, manufacturing and expiration dates, price tags, and barcode to assist differentiating, useful for informing consumers about the product in the cause of decision making and choices before purchasing. Also, Tan and Tan (2023) insisted of the benefits of modern packaging in the marketing as the consumers are improved interaction with products, enhanced visibility, and facilitate traceability within the supply chain. Certainly Kostov (2023) and Shukla et al. (2022) added that training on the modern packages embraced to serve the visual culture, communicating about the product and stimulate consumers’ positive emotional attributes. Apparently, the recommendations are made to the local coconut oil producers to keep on utilizing the knowledge obtained from the components of packaging training for differentiation from competitors, effectively communicate about the product to persuade consumers, facilitate purchasing decisions, builds brand recognition, product identity for increasing market value and sustainability.

4. Conclusion

In conclusion, training on modern coconut oil packaging assisted local producers to change the consumers’ decision making and preferences as was increased product's quality, choices, consumption, authenticity and attractiveness reflective on the package size, color, text and images, quantity and pricing. Further, packaging training was valuable to the local producers and consumers of coconut oils as has increased purchasing attention, choices, guide decision making, enabled differentiation and sustainability of the product in the market. Moreover, the research contributed on the importance of training for packaging as the market strategy tool that changes consumers purchasing behaviors; increased the knowledge on the area of coconut oil that is significantly having few literatures. Apparently, recommendations are made to the local coconut producers to continue utilizing knowledge obtained from the training for innovative implementation of coconut oil packages for changing consumers attitude and preferences henceforth market practices improvements. Moreover, the future researches are recommended in the area of: 1) retrospective investigation of local coconut oil producers in packaging experiences; 2) assessment of coconut oil packaging materials and brand labelling towards consumers’ behavior; 3) influence of modern coconut oil packaging in supply chain and market sustainability: from the perspectives of local producers.

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