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Original Article

The Role of Perceived Risk in Consumer Purchasing Decisions

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Abstract

This study examined the role of perceived risk in consumer purchasing decisions regarding cosmetic products in Iringa, Tanzania. Specifically, it aimed to identify the types of perceived risks associated with cosmetic consumption, assess the extent to which perceived risk influences purchasing behavior, and explore the strategies consumers employ to manage or reduce such risks. Grounded in Perceived Risk Theory, the study adopted a convergent mixed-methods design to capture both quantitative patterns and qualitative insights into consumer behavior. Data were collected from 317 cosmetic product consumers who were selected through stratified sampling using structured questionnaires comprising closed and open-ended questions. Quantitative data were analyzed using descriptive statistics, while qualitative responses were analyzed thematically. The findings indicate that consumers perceive multiple types of risk when purchasing cosmetic products, with physical risk emerging as the most prominent concern, followed by time risk and performance risk. The results further suggest that perceived risk is associated with cautious purchasing behavior, including increased information search, ingredient scrutiny, reliance on expert recommendations, and avoidance of high-risk product categories. Additionally, consumers were found to adopt various risk reduction strategies, particularly checking product ingredients and consulting trusted sources before making purchase decisions. The findings contribute to the limited literature on perceived risk in emerging economies. Moreover, the study provides important descriptive insights into consumer risk perceptions within the Tanzanian cosmetics market and highlights the importance of product safety, transparent labeling, and consumer education. The findings offer practical implications for cosmetic companies, regulators, and policymakers seeking to enhance consumer trust and safety in emerging markets.

Categories: Consumer Behavior, Marketing and Market Issues in Business

Keywords: risk, consumer behaviour, perceived risk, purchase decision, cosmetic products

Introduction

Consumer decision-making is often influenced by uncertainty and limited information as well as the perceived risks associated with purchasing decisions (Ajazzazen and Balawi, 2022). These risks have become increasingly relevant in today's competitive consumer markets, especially in product categories that directly affect personal health, appearance, and self-image. Among these categories, cosmetic products stand out because they are closely tied to individual identity, self-confidence, and social acceptance. As a result, cosmetics attract heightened consumer attention regarding safety, effectiveness, and overall value.

Perceived risk, first introduced by Bauer (Bauer, 1960) as the possibility of negative outcomes arising from a purchase, remains central to consumer behavior research. Scholars note that risk perception may take different forms, including financial, functional, social, and health-related risks (Narci, 2023). In the case of cosmetics, these risks are magnified because products are applied directly to the body, producing outcomes that may be immediately visible or health-

Cosmetic purchases therefore involve multiple dimensions of risk, including concerns over product safety, performance, and social acceptance. Studies suggest that when consumers perceive higher levels of risk, they are less likely to purchase, often seeking reassurance or additional information before making decisions (Narci, 2023) and (Kisawike, 2015). This tendency is particularly pronounced in developing economies, where product quality assurance mechanisms may be weaker and consumer awareness less consistent.

In Tanzania, perceived risk takes on added significance due to limited regulatory oversight, inconsistent product quality, and the widespread availability of counterfeit or substandard cosmetics. Consumers, particularly in urban areas like Iringa, often struggle to balance affordability with concerns about safety and effectiveness. Reports of adverse effects such as skin irritation, discoloration, and long-term health complications have heightened consumer caution, influencing not only what they purchase but also where and how they purchase it (Haykal et al., 2025). This demonstrates that cosmetic choices extend beyond aesthetics to encompass broader health and social implications.

Understanding the role of perceived risk in cosmetic purchasing decisions is therefore crucial for multiple stakeholders. For businesses, insights into consumer risk perceptions can inform strategies to build trust, enhance product credibility, and strengthen customer loyalty. For regulators, addressing these risks highlights the need for stricter quality control and stronger consumer protection frameworks. For consumers, recognizing the weight of risk perceptions can promote more informed choices, especially in contexts where safety concerns compete with affordability.

Despite the growing importance of the cosmetic industry in Tanzania, there is still limited empirical understanding of how perceived risks shape consumer purchasing behavior. Most existing studies on perceived risk and consumer behavior have been conducted in developed economies, with little attention to African markets where cultural values, regulatory environments, and consumer awareness differ significantly. This knowledge gap constrains the ability of marketers to design effective strategies, regulators to safeguard consumers, and consumers themselves to make informed choices. Therefore, this study seeks to examine the role of perceived risk in consumer purchasing decisions, with specific reference to cosmetic products in Iringa, Tanzania.

Literature review

Perceived Risk

Risk has been defined as the likelihood of determining the technique or the alternatives for a better outcome (Ajazzazen and Balawi, 2022). Risk refers to an individual's expectation of the potential loss associated with an exchange. In the context of buyer behavior, the more certain one is about the possibility of an unfavorable outcome, the greater the perceived risk (Maziriri and Chuchu, 2017). Risk is inscribed in people's lives and results from making decisions about the future (Maciejewski, 2011). Perceived risk refers to the extent to which the unfavorable outcomes of an economic event might occur, impacting various entities such as individuals, businesses, organizations, or governments (Bland et al., 2024). Perceived risks refer to the spiritual cost associated with customers' purchasing behavior, which represents a kind of uncertainty about the future. This uncertainty directly affects consumers' purchase intentions (Wei et al., 2018). In other words, perceived risk is defined as the consumer's perception of the uncertainty and adverse consequences of buying products or services (Phamthi et al., 2024). Perceived risk is the degree to which the negative outcomes of an economic event are believed to be possible, potentially affecting individuals, businesses, organizations, or governments. This has been a central topic in empirical research aimed at gaining deeper insights into consumer behavior, especially in the field of marketing (Bland et al., 2024). Perceived risk is an essential element of services and marketing (Maulana and Marsasi, 2024). Perceived risk is the potential loss consumers anticipate in relation to a decision to purchase a product or service (Cabeza-Ramírez et al., 2022). Good management of perceived risk can increase consumer trust and drive purchasing decisions. Perceived risk also directly affects trust, behavior, and consumer purchase intention (Maulana and Marsasi, 2024). Based on the above definitions of perceived risk, it can be concluded that a consumer's perception of risk is an internal experience that cannot be directly observed. Instead, the dimensions of risk can only be inferred through indicators such as personal experience, hearsay, and word-of-mouth. In other words, when consumers perceive a higher risk, they are less likely to purchase. To reduce this perceived risk, consumers often seek additional information before making a buying decision. Companies can minimize the risks perceived by consumers, which can increase purchase intentions.

Perceived risk is commonly categorized into five dimensions: performance, time, social, psychological, and financial risk (Jacoby and Kaplan, 1972), (Bland et al., 2024), and (Kim et al., 2008). In the context of services, Narci (Narci, 2023) expanded this classification by identifying six types of perceived risk: social, financial, physical, performance, time, and psychological risk. Together, these classifications underscore a central theme in the literature namely, the identification of the key risk dimensions that consumers evaluate when making purchasing decisions (Table 1).

Type of Risk	Meaning of the Risk	Impact on Cosmetic Products
Physical Risk	Physical risk relates to the safety and health of the individual (Horton, 1976). Also, Jacoby and Kaplan (Jacoby and Kaplan, 1972) defined physical risk as the potentiality that products or services are damaging or harmful to individuals' health.	Physical harm or injury after using a cosmetic product.
Performance Risk	Horton defined performance risk as the loss incurred when a brand or product does not perform as expected (Horton, 1976).	The cosmetic product does not perform according to the customer's expectations.
Financial Risk	Financial risk is defined as a net financial loss to the customer, including the possibility that the product may need to be repaired, replaced, or the purchase price refunded (Gürbüz, 2017). Financial risk is sometimes referred to as economic risk. Financial risk involves the potentiality of fiscal losses caused by purchasing the products (Jacoby and Kaplan, 1972).	When value for money is not reflected in the purchased cosmetic products.
Time Risk	Time risk results when the passage of time reduces the ability of the product to satisfy wants, such as when a product rapidly becomes obsolete (Ross, 1975).	This happens when customers are administered expired cosmetic products.
Social Risk	Social risk reflects the disappointment experienced by the individual from his/her friends in case of poor product/service (Gürbüz, 2017).	Individual or family disappointment due to poor performance of the cosmetic products he/she has chosen.
Psychological Risk	Psychological risk is related to consumers' peace of mind and self-concept (Jacoby and Kaplan, 1972).	Losing peace of mind if the experience with the purchased cosmetic products falls below expectations.

TABLE 1: Types of Risks and their Impact on Cosmetic Products

These risks can significantly influence consumer preferences and purchase intentions, often deterring consumers from trying new cosmetic brands. Consequently, consumers may rely heavily on word-of-mouth and brand reputation when making purchasing decisions. To reduce uncertainty, consumers must understand both the intrinsic and extrinsic cues of a product before committing to a purchase. Marketers, therefore, have the responsibility to ensure that products are effectively communicated and well known to the target audience. This helps consumers make informed decisions with greater confidence and prior knowledge of a product's potential benefits or drawbacks.

Perceived Risk and Consumer Purchasing Decisions

Decision-making is correlated with problem-solving, which involves alternate solutions, not just part of the path to their solution. For instance, the determination must be resolved if a student has been offered places on more than one course (Ajazzazen and Balawi, 2022). Consumer purchasing decision-making and consumer behavior are complex processes. Consumers are constantly influenced by many factors that determine their final purchase decision. These are both traditional marketing tools and new consumption determinants that are emerging in relation to current trends related to consumer behavior, which are mainly digitalization, sustainability, and increased interest in health after the pandemic and the associated change in life values (Antosova et al., 2023). According to Ajazzazen and Balawi (Ajazzazen and Balawi, 2022), decision-making is a process of identifying a problem, evaluating alternatives, and selecting one alternative. During the entire process, people make the best choice among several options based on the current situation. Decision-making is a natural part of everyday human life. People make decisions of varying importance each day (Li, 2009). In general, consumer decisions involve choices such as whether to make a purchase, what to purchase, when to purchase, from whom to purchase, and how to pay for it. The decision-making process begins when a consumer recognizes a problem or need. This prompts a search for information on various alternatives that can address this issue. Once the consumer has gathered sufficient information, they evaluate the options and determine how best to use this information to make decisions. After evaluating the alternatives, the consumer makes the purchase decision (Kisawike, 2015).

Maciejewski emphasized that risk influences consumer purchasing behavior; it is a specific determinant that comes into play only when perceived by the consumer (Maciejewski, 2011). If consumers do not perceive risk in the process of purchasing certain goods or services, the existence of objective risk has no impact on their behavior. In other words, risk affects purchasing decisions only when it is perceived. Therefore, risk perception is a necessary condition for risk to be considered a factor in consumer decision-making. Interestingly, consumers often attempt to reduce their perceived risk, even in situations where no objective risk exists. This behavior can be attributed to several factors, including limited information, a restricted number of trials before making a choice, and imperfect memory. In many cases, consumers deal with first-time purchases on which they lack prior experience or knowledge to rely upon

Perceived Risk Across Developed and Developing Economies

Perceived risk plays a crucial role in shaping consumer behavior, but the way it is experienced varies considerably between developed and developing economies. Consumers in developed economies generally benefit from strong regulatory environments, stringent consumer protection laws, and high product quality standards. These institutional frameworks reduce the uncertainty surrounding products and services. As a result, perceived risk is often focused on psychological and social dimensions. For example, consumers may worry more about whether a product matches their self-image, aligns with sustainability values, or enhances their social status rather than about basic safety or quality (Jacoby and Kaplan, 1972) and (Phamthi et al., 2024). With advanced digital infrastructure, consumers can easily access product reviews, certifications, and comparison tools which helps reduce perceived performance or financial risks.

In contrast, developing economies often face institutional weaknesses such as limited regulation, counterfeit markets, poor enforcement of consumer rights, and inadequate product safety measures (Maciejewski, 2011) and (Kisawike, 2015). Here, consumers perceive greater performance, physical, and financial risks because product failure, harmful ingredients, or wasted investment are more likely. Access to trustworthy information is limited, meaning consumers rely heavily on word-of-mouth, peer networks, and experiential knowledge to mitigate risks. This environment magnifies uncertainty, making consumers cautious in their purchasing decisions (Abzakh et al., 2013) and (Bland et al., 2024).

In Tanzania, the cosmetic consumption culture, particularly around skin-lightening products, illustrates how risk perceptions manifest in a developing economy. For instance, many consumers question whether skin-lightening products will work as advertised. Inconsistent quality, lack of standardization, and prevalence of counterfeit products increase uncertainty. Studies have documented harmful health effects of unregulated skin-lightening creams containing mercury or hydroquinone. The potential for long-term skin damage or chronic illnesses amplifies consumers' risk perceptions. For instance, Francis et al. (Francis et al., 2025) found that individuals who practice skin-lightening products may develop various skin condition including permanent hyperpigmentation.

Perceived Risk Theory by Cox and Rich

The Perceived Risk Theory (PRT) was developed by Cox and Rich (Cox and Rich, 1964), who explained how uncertainty and the possibility of negative outcomes influence consumer behavior. Cox and Rich proposed that consumers make purchasing decisions under conditions of uncertainty when they are unable to fully predict the consequences of their choices. This uncertainty generates perceived risk, which is defined as the consumer's subjective expectation of loss or adverse outcomes associated with a purchase decision.

They further refined the theory by identifying multiple dimensions of perceived risk, including physical, financial, performance, social, psychological, and time-related risks. According to Cox and Rich, perceived risk arises because consumers often have limited information, imperfect knowledge, and an inability to foresee outcomes prior to consumption. As a result, consumers anticipate potential negative consequences such as physical harm, product failure, wasted time, or financial loss, and consequently adjust their behavior to minimize these risks. Importantly, perceived risk does not necessarily reflect objective or actual risk; rather, it represents the consumer's subjective interpretation of uncertainty and the perceived severity of potential consequences.

This study is firmly grounded in Cox and Rich's theoretical perspective. It assumes that consumers experience considerable uncertainty when evaluating cosmetic products, as they often lack complete information regarding product ingredients, safety, authenticity, and long-term effects, conditions that are central to Cox and Rich's theory. Cosmetic products are distinctive because they are applied directly to the body, frequently over extended periods, and may produce both immediate and long-term effects on health, appearance, and self-esteem.

Consequently, several dimensions of perceived risk are particularly salient in the cosmetics context. Physical risk is prominent due to fears of skin damage, allergic reactions, or other health-related effects. Performance risk emerges when products fail to deliver promised outcomes, such as skin-whitening or anti-aging benefits. Time risk reflects concerns about wasting time using ineffective, expired, or counterfeit products, while financial risk arises from spending money on products that do not meet the consumer's expectations.

By emphasizing these risk dimensions, the study adapts Cox and Rich's theoretical framework to the realities of the Tanzanian cosmetics market, where regulatory enforcement may be weak and counterfeit or substandard products are widely available. This contextual application of PRT provides a robust lens for understanding how uncertainty and perceived negative outcomes shape consumer behavior in cosmetic purchasing decisions.

Conceptual framework

This study is guided by PRT, developed by Cox and Rich, which explains that consumers evaluate potential risks and uncertainties associated with products before making purchasing decisions. The theory posits that consumers' perceptions of risk, rather than objective risk alone shape their purchasing behavior, particularly in situations where information is limited or outcomes are uncertain. This theoretical perspective is especially relevant in the cosmetic products market, where consumers may lack complete information regarding product safety, effectiveness, and long-term use.

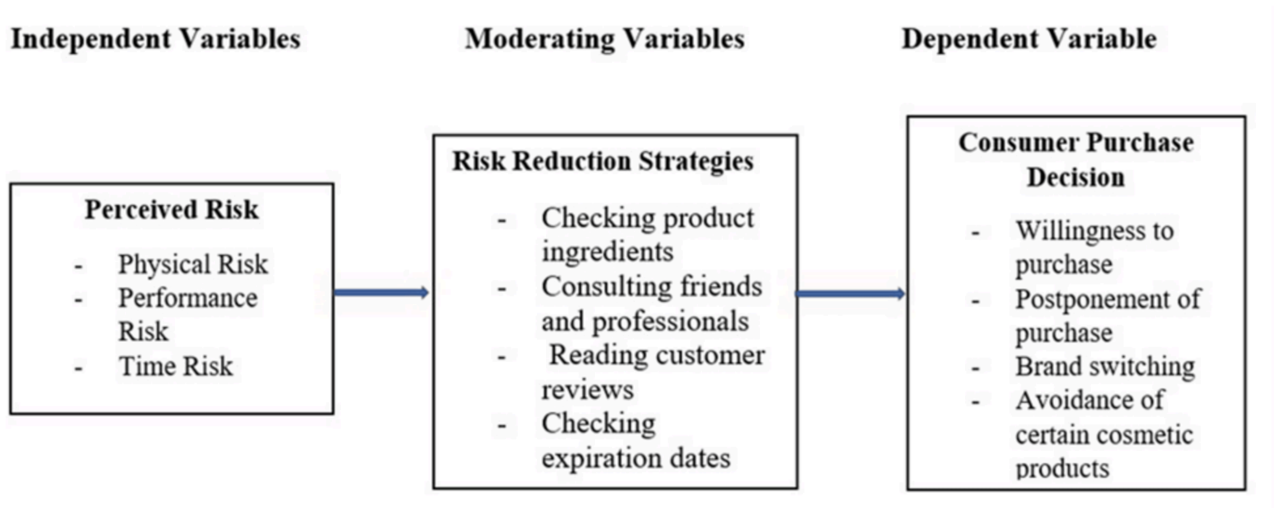

FIGURE 1: Conceptual Framework Illustrating the Role of Perceived Risk in Consumer Purchasing Decisions for Cosmetic Products

Based on this theory, the conceptual framework presented in Figure *1* outlines the key variables examined in the study and their assumed relationships. In line with the descriptive nature of the research design, the framework does not aim to establish causal relationships but rather to describe and organize how different dimensions of perceived risk relate to consumer purchasing decisions and the strategies consumers adopt to manage these risks.

In the framework, perceived risk dimensions namely physical risk, performance risk, and time risk are treated as the independent variables. These risks represent consumers' concerns about possible negative outcomes arising from the use of cosmetic products, such as skin irritation, product ineffectiveness, or wasted time resulting from unsatisfactory purchases. The study descriptively examines the prevalence and nature of these perceived risks among consumers in Iringa, Tanzania. The framework further incorporates risk-reduction strategies as moderating variables, reflecting the actions consumers employ to minimize uncertainty prior to making purchase decisions. These strategies include checking product ingredients, consulting friends and professionals, reading customer reviews and checking expiration dates. Rather than testing moderation effects statistically, the study descriptively explores how commonly these strategies are used and how they are perceived by consumers as mechanisms for managing risk.

The dependent variable in the framework is consumer purchasing decision, which encompasses behaviors such as willingness to purchase, postponement of purchase, brand switching, or avoidance of certain cosmetic products. Using descriptive statistics, the study summarizes how consumers' purchasing decisions vary in relation to different perceived risks and the adoption of risk-reduction strategies. Overall, the conceptual framework provides a structured representation of the key concepts examined in the study and supports the use of descriptive statistical analysis to address the research objectives. By focusing on consumers' perceptions, experiences, and behavioral responses, the framework aligns with the study's aim of describing the role of perceived risk in cosmetic purchasing decisions without making inferential or causal claims.

Research gap

Although the concept of perceived risk has been widely examined in consumer behavior literature, most studies such as Nagesh et al. (Nagesh et al., 2024), Zhang and Yu (Zhang and Yu, 2020), Phamthi et al. (Phamthi et al., 2024), and Michałowska et al. (Michałowska et al., 2024) have primarily focused on developed economies with limited empirical research in emerging or developing markets such as Tanzania. In particular, the role of perceived risk in consumer decision-making in the context of cosmetic products remains underexplored in regional markets such as Iringa. Existing studies often generalize consumer behavior without considering sociocultural, economic, and demographic factors unique to specific local contexts. Furthermore, while previous research has identified various dimensions of perceived risk, such as financial, performance, physical, psychological, and social risks, their relative impact on the purchase decisions of cosmetic products in rural or semi-urban Tanzanian settings has not been adequately analyzed. This presents a gap in the understanding of how consumers in Iringa specifically perceive and respond to these risks when choosing cosmetic products. Moreover, there is a lack of localized data on how factors such as brand trust, product information availability, and consumer education mitigate perceived risks in cosmetic purchasing behavior in this region. Addressing this gap is essential to provide actionable insights for marketers, policymakers, and local entrepreneurs, aiming to align their strategies with consumer concerns and improve product satisfaction and loyalty.

Objectives of the study

This study is guided by the following objectives:

To identify the types of perceived risks associated with the consumption of cosmetic products.

To examine the extent to which perceived risk influences consumer behavior during the purchasing process.

To explore the strategies consumers, employ to reduce or manage perceived risks before making a purchase.

Research Method

This study investigated the role of perceived risk in consumers' purchasing decisions regarding cosmetic products in Iringa, Tanzania. The research was conducted at a Private University located in Iringa Municipality, Iringa Region, selected due to its diverse population of employees and students who actively use cosmetic products. The study adopted a convergent mixed-methods research design, which integrates quantitative and qualitative data collected simultaneously to obtain a comprehensive understanding of the research problem. According to Creswell and Creswell (Creswell and Creswell, 2023), convergent mixed-methods design enables researchers to compare and merge findings from different data strands to enhance validity, complementarity, and depth of interpretation. This design was considered appropriate because the study sought not only to quantify patterns of perceived risk but also to explore consumers' experiences and behavioral responses in greater detail.

Target population and sampling procedures

The target population comprised cosmetic product consumers at the selected Private University, including employees and first- and second-year bachelor's degree students. The total population consisted of 1,787 individuals, including 239 employees and 1,548 students. The sample size of 317 respondents was determined using the sample size determination table developed by Krejcie and Morgan (Krejcie and Morgan, 1970), which provides scientifically accepted sample sizes for finite populations. This ensured adequate representation and statistical reliability of the findings. A stratified sampling technique was employed to enhance representativeness by dividing the population into two strata: employees and students. Respondents were then selected proportionately from each stratum to minimize sampling bias and improve the generalizability of the results within the study setting.

Data collection methods and instruments

Primary data were collected using a structured questionnaire containing both closed-ended and open-ended questions. Closed-ended questions were used to collect quantifiable information on demographic characteristics, perceived risk types, purchasing behavior, and risk mitigation strategies. Open-ended questions enabled respondents to provide detailed explanations regarding their experiences and behavioral responses toward cosmetic products. The questionnaire was designed based on constructs derived from PRT, which conceptualizes consumer risk perception as a multidimensional phenomenon, including physical risk, performance risk, and time risk.

Data processing and analysis procedures

Prior to analysis, all questionnaires were screened, coded, and verified for completeness, consistency, and accuracy. Data cleaning procedures were conducted to remove incomplete or inconsistent responses. Quantitative data were analyzed using the Statistical Package for Social Sciences (SPSS) version 20. The study employed descriptive statistical techniques, including frequencies, percentages, and distribution tables. Descriptive statistics were selected because the study objectives were exploratory and descriptive in nature, focusing on identifying patterns, trends, and consumer behavioral tendencies rather than establishing causal or predictive relationships. The use of descriptive statistics is widely recommended when research aims to summarize consumer perceptions, categorize behavioral responses, and describe observed phenomena within a specific context. The selection of descriptive statistical analysis was guided by the exploratory nature of the study objectives. The research aimed to describe consumer perceptions, experiences, and behavioral tendencies rather than to test causal relationships between variables. Therefore, descriptive statistics provided an appropriate and scientifically accepted method for summarizing data patterns and addressing the stated research objectives. On the other hand, qualitative responses obtained from open-ended questions were analyzed using thematic analysis. This involved coding responses, categorizing similar viewpoints, and identifying recurring themes related to consumer experiences, emotional responses, and behavioral adjustments. Thematic analysis complemented quantitative findings by providing deeper insight into consumer perceptions and decision-making processes.

Ethical considerations

Ethical standards were strictly observed throughout the research process. Participation was voluntary, and informed consent was obtained from all respondents. Confidentiality and anonymity were maintained by ensuring that personal information was not disclosed. Ethical clearance was obtained from the Vice Chancellor of the Private University prior to data collection.

Results And Discussion

This section presents findings on consumers' perceptions of risk and purchasing behavior regarding cosmetic products in Iringa, Tanzania. The analysis focuses on describing demographic characteristics, types of perceived risks, consumer behavioral tendencies, and risk mitigation strategies based on descriptive statistical results and thematic analysis.

Personal information

Age Distribution of Respondents

This section presents an age breakdown of the 317 respondents involved in the study. Table 2 below shows that nearly half of the participants (49.2%) were between the ages of 18 and 25, followed by 23.3% who were aged 26 to 33. Smaller proportions included those aged 42-49 (13.6%), 34-41 (8.3%), and 50 years and above (5.6%). The data indicate that the majority of respondents were young adults, which aligns with the demographic most actively engaged in cosmetic product usage. Understanding the age distribution helps tailor marketing strategies and product development to meet the preferences of the dominant age groups.

Age Group	Number of Respondents	Percent
18-25	156	49.2
26-33	74	23.3
34-41	26	8.2
42-49	43	13.6
50+	18	5.6
Total	317	100

TABLE 2: Age Distribution of Respondents

The age distribution of respondents indicates that nearly half of the sample (49.2%) fell within the 18-25 age group, followed by 26-33 years (23.3%), while older groups (34-41, 42-49, and 50+) were relatively smaller segments. This age structure has important implications for how risk is perceived and managed across different consumer categories.

Younger consumers, particularly those aged 18-25, are the most active users of digital platforms and are highly influenced by peers, trends, and social media endorsements. Their risk perceptions are often shaped by online reviews, influencer marketing, and viral content. While they may be more open to experimenting with new cosmetic products, their relatively limited experience and susceptibility to peer influence can make them more vulnerable to physical risks, such as exposure to harmful or counterfeit products circulating online. At the same time, this group may place lower emphasis on performance risk, since experimentation and brand switching are common behavior in this segment.

For consumers in the 26-33 age range, the perception of risk tends to balance between safety and performance. As this group transitions into greater financial independence and career development, they are more likely to seek reliable, trusted brands and may be more critical of product effectiveness. Hence, both physical and performance risks are important considerations for this cohort.

In contrast, older consumers (34 years and above) are often more cautious and deliberate in their purchasing decisions. They may have greater awareness of the long-term health effects of cosmetic products, which heightens their sensitivity to physical risk. This group is also less likely to be swayed by social media trends and more likely to depend on personal experience, medical advice, or product certifications. However, they may be relatively less concerned about time risk, since product efficacy and safety take precedence over immediate results.

Sex of Respondents

This section outlines the sex distribution of study participants. From Table 3 below, 68.5% of the respondents were female, while 31.5% were male. The predominance of female participants reflects a common trend in cosmetic product research, as women are typically the primary consumers in this market. This demographic information helps contextualize the findings and ensures that insights are aligned with the main user group.

Sex	Number of Respondents	Percent
Male	100	31.5
Female	217	68.5
Total	317	100

TABLE 3: Sex of Respondents

Generally, the presence of significant numbers of both sexes in this study indicates a market that is becoming more diverse and inclusive. Cosmetic companies should adopt a sex-inclusive approach in product design and marketing when appropriate, promote unisex products, and avoid sex stereotypes. This can broaden appeal and build brand loyalty across demographics. The findings confirm that females are the core consumers of cosmetic products, but they also highlight a substantial and growing male segment. Cosmetic companies should continue to innovate for women while strategically expanding their offerings for men. Inclusive marketing and sex-sensitive product development can help brands capture and retain a wider audience in the evolving cosmetics market.

Occupation of Respondents

This section highlights the occupational status of respondents. A significant majority (75.4%) identified as students, while the remaining 24.7% were employed as shown in Table 4 below. The dominance of students in the sample suggests that much of the data reflects the preferences and behavior of younger, possibly more trend-conscious, consumers. This demographic detail is important for understanding the context of cosmetic usage and effectively targeting marketing efforts.

Occupation	Number of Respondents	Percent
Student	239	75.4
Employee	78	24.4
Total	317	100

TABLE 4: Occupation of Respondents

The findings revealed that 75.4% of respondents were students, while 24.6% were employees. This occupational breakdown has significant implications for the understanding of cosmetic product usage patterns and marketing strategies. Students form the majority of cosmetic consumers (75.4%), implying that the dominance of students in the respondent group indicates that young, likely budget-conscious individuals are a key segment of the cosmetic market. Therefore, cosmetic companies should tailor their products and marketing strategies to appeal to this group by focusing on affordability, trendy packaging and branding, youth-oriented product lines, social media and influencer marketing, and educational content on skincare and product usage. On the other hand, employees were a smaller but significant segment (24.6%). This implies that this group is likely to have higher purchasing power and may prioritize quality, effectiveness, and brand reputation over trendiness. Thus, cosmetic companies can target this group with products that emphasize professional appeal, long-term benefits such as anti-aging, skin health, time-saving, or multipurpose features for busy lifestyles, and subscription or loyalty programs for convenience and brand retention.

The high proportion of student respondents highlights a youth-driven cosmetic market and presents a long-term opportunity to build brand loyalty at an early age. Cosmetic companies should focus on engaging and educating young consumers through strategies, such as interactive social media campaigns, sample giveaways, skincare guidance content, and loyalty apps tailored to student users. Simultaneously, the presence of employed respondents points to a valuable segment with distinct preferences and greater purchasing power. To maximize market reach and customer retention, brands should adopt a dual marketing strategy that offers budget-friendly, trendy products for students, alongside premium, performance-oriented options for working adults.

Frequency of Buying Cosmetic Products

Understanding how often consumers purchase cosmetic products provides insight into their buying habits and the regularity of their product usage. According to the data presented in Table *5* below; the most common purchasing frequency was once every few months (37.0%), and only when the need arose (37.0%). Additionally, 20.5% of the respondents buy cosmetics once a month, while 5.5% purchase cosmetics very rarely. These findings suggest that, while some consumers maintain a regular buying routine, many purchase cosmetics more sporadically, often driven by immediate needs rather than consistent use. This variability highlights the importance of cosmetic companies' understanding and catering to both frequent and occasional buyers in their marketing and product development strategies.

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Purchasing Frequency	Number of Respondents	Percent
Once a month	66	20.5
Once every few month	117	37.0
Very rarely	17	5.5
Only when need arises	117	37.0
Total	317	100

TABLE 5: Buying Cosmetic Products

Thus, cosmetic companies should focus on creating long-lasting, high-quality products to justify less frequent purchases. Generally, the data indicate that cosmetic purchases are largely occasional or need-based, with a smaller group of regular monthly users. Cosmetic companies should tailor their strategies to accommodate both infrequent and regular buyers by offering flexible purchasing options, focusing on product value, and using targeted engagement strategies to encourage more consistent purchasing behavior over time.

Place Where Cosmetics are Bought

The locations where consumers purchase cosmetic products reveal important trends in shopping behavior and preferred retail channels. As shown in Table *6* below, 78.1% of respondents bought cosmetics from regular cosmetic shops. Other purchasing venues included exhibitions or agents (13.7%), online platforms (6.8%), and a small percentage from normal retail shops (1.4%). These results indicate that traditional cosmetic shops remain the dominant purchasing point, while online shopping and alternative outlets such as exhibitions are less common but still relevant. This information can help cosmetic companies to tailor their distribution and marketing strategies to meet consumers who prefer to shop.

Purchase Location	Number of Respondents	Percent	Cumulative Percent
Regular cosmetic shops	248	78.1	78.1
Online	22	6.8	84.9
Exhibitions/Agents	43	13.7	98.6
Normal Retail shops	4	1.4	100
Total	317	100	

TABLE 6: Place Where Cosmetic Products are Bought

Generally, consumers clearly prefer to buy cosmetics from specialized shops, where they can see, test, and obtain advice about products. While online and event-based purchases are growing, they are still trailing behind because of trust and accessibility issues. Cosmetic brands should maintain strong physical retail partnerships, while investing in trustworthy online platforms and experiential marketing to capture and grow other channels.

Trusted Sources of Information about Cosmetic Products

Consumers rely on various information sources to make informed decisions regarding cosmetic purchases. Understanding which sources are the most trusted can help brands and marketers tailor their communication strategies more effectively. Findings in Table 7 below show that the most trusted sources of information were friends and relatives (31.9%), followed by health or skin professionals (25.0%) and social media platforms (22.2%). Advertisements accounted for 19.4%, while sellers were the least trusted source at only 1.4%. These findings suggest that word-of-mouth and expert advice are more credible and reliable than commercial or sale-based messaging. This reinforces the importance of peer recommendations and professional endorsements in influencing consumer trust and purchase behavior in the cosmetics industry.

Trusted Source of Information	Number of Respondents	Percent
Social Media	70	22.1
Friends/Relatives	101	31.9
Advertisements	62	19.6
Health/Skin Professionals	79	24.9
Sellers	5	1.5
Total	317	100

TABLE 7: Trusted Source of Information about Cosmetic Products

This implies that personal recommendations have the greatest influence on cosmetic product choice. Consumers value firsthand experiences from people they know and trust. This is to say that cosmetic companies should encourage word-of-mouth marketing and create opportunities for existing customers to share their positive experiences, such as referral programs, user testimonials, and community-building campaigns. In addition, a significant portion of consumers place their trust in experts such as dermatologists and skincare professionals. Therefore, cosmetic companies can boost credibility by collaborating with dermatologists or skin experts, obtaining professional endorsements, and offering products that are dermatologically tested and recommended. Digital media continues to shape consumer perceptions and influence purchasing decisions; however, trust in these platforms remains lower than in personal and professional sources. To address this, cosmetic companies should prioritize authenticity in influencer marketing and focus on delivering transparent, educational, and engaging content on social media. Avoiding exaggerated or misleading advertisements is essential to preserving consumer trust. At the same time, cosmetic users often view sellers and retailers with skepticism, likely because of perceived sales-driven motives. To overcome this, sales staff should be trained to prioritize honesty, product knowledge, and customer-focused services, rather than aggressive persuasion. Building credibility at the point of sale can enhance consumers' confidence. Overall, the findings indicate that personal relationships and professional expertise are the most trusted sources of information for cosmetic products, whereas digital and commercial media play a secondary, supportive role. Therefore, cosmetic brands should leverage trusted voices, such as referrals, expert endorsements, and genuine social content, as part of a broader strategy focused on trust-building in marketing and communication.

Perceived risk

Perceived risk plays a critical role in shaping consumer behavior, especially in the cosmetics industry, where product application directly affects personal health and appearance. Consumers often evaluate multiple types of risks before making a purchase decision. Table 8 illustrates the specific risks considered by the respondents when buying cosmetic products. The most frequently cited concerns included the product expiration date (time risk) (46.4%) and skin damage (physical risk) (40.7%). Other risks mentioned were skin diseases (physical risk) (7.3%), skin cancer (physical risk) (4.4%), and unwanted changes in skin color (performance risk) (1.2%). This breakdown highlights that short-term and visible effects, such as skin damage and expired products, are more immediate and pressing in the minds of consumers than long-term or less visible risks, such as cancer. These findings emphasize the need for cosmetic brands to address these perceived risks directly through clear labeling, dermatological testing, and transparent communication.

Risks Considered During Purchase	Number of Respondents	Percent
Skin Cancer	14	4.4
Expire Date	147	46.4
Skin Damage	129	40.7
Other Skin Diseases	23	7.3
Changing Skin color	4	1.2
Total	317	100

TABLE 8: Risks Considered During Purchase of Cosmetic Products

The findings indicate the presence of three key types of perceived risk among consumers: time risk, physical risk, and performance risk. Among these, physical risk scored the highest at 52.4%, followed by time risk at 46.4%, whereas performance risk was significantly lower at 1.4%.

This suggests that modern consumers are becoming increasingly concerned about the potential health implications of cosmetic products. The high score for physical risk highlights growing awareness and caution regarding ingredients, side effects, and the overall safety of products applied to the skin or body. Consequently, consumers prioritize their well-being and are more likely to scrutinize product labels, seek professional advice, or rely on trusted brands before making a purchase.

Time risk, which reflects concerns about wasting time on ineffective or unsuitable products, remains a significant consideration. This indicates that consumers are cautious about investing time in trial-and-error experiences, and prefer products that deliver quick and reliable results. On the other hand, the relatively low score for performance risk (1.2%) may imply that consumers have a certain level of confidence in the promised functionality of cosmetic products, possibly because of brand reputation, marketing influence, or past experience. However, this also highlights that trust in product safety outweighs expectations of product performance. Overall, the findings underscore a shift in consumer priorities, where health and safety take precedence over product effectiveness and time efficiency. Cosmetic companies must therefore focus on developing safe and skin-friendly products, ensuring transparency in labeling, and building trust through quality assurance and clinical validation.

Negative Experience with Cosmetic Products

Negative experiences can significantly influence consumer behavior and reshape future purchasing decisions. These data examined the prevalence of adverse encounters with cosmetic products among the respondents. From Table *9*, it can be seen that 43.5% reported having had a negative experience with a cosmetic product, whereas 56.5% stated that they had not. These findings highlight that a substantial portion of consumers face issues such as skin reactions, ineffectiveness, or other side effects that can lead to distrust, brand switching, or greater caution in future purchases. This underscores the need for cosmetic companies to prioritize product safety, transparent communication, and customer support to rebuild and maintain consumer trust.

Negative Experience	Number of Respondents	Percent
Yes	138	43.5
No	179	56.5
Total	317	100

TABLE 9: Negative Experience with Cosmetic Products

The findings above imply that cosmetic companies are required to review ingredient safety, labeling accuracy, and allergen disclosures to provide high-quality products and minimize unnecessary risks. These findings also reinforce the importance of regulatory oversight and certification by relevant authorities to ensure that products are safe and meet quality standards. Additionally, authorities may consider stricter testing protocols or mandatory consumer safety guidelines. Nevertheless, the data imply a need for better consumer awareness of selecting products suited to their skin types, understanding ingredient lists, and patch-testing new cosmetics. This is because frequent negative experiences can undermine trust in cosmetic brands and affect consumer loyalty. Brands with transparent safety practices and certifications can gain competitive advantage. While the majority of users reported positive experiences with cosmetics, the fact that nearly one in two users had a negative encounter highlights the critical need for improved safety standards, consumer education, and regulatory compliance in the cosmetics industry. Addressing these concerns can enhance consumers' confidence and protect public health.

Type of Negative Experience with Cosmetic Products

For consumers who encounter problems with cosmetic products, the nature of these negative experiences offers valuable insights into areas that require attention by the industry. The findings presented in Table *10* below outline the types of negative experiences consumers face when using cosmetic products.

Type of Negative Experience	Number of Respondents	Percent
Skin Damage	264	83.3
Expired Cosmetics	21	6.6
Hair Destruction	21	6.6
Change of Skin color	11	3.5
Total	317	100

TABLE 10: Types of Negative Experience with Cosmetic Products

The findings revealed that consumers encounter three primary types of risks associated with cosmetic product usage: physical risk (89.9%), time risk (6.6%), and performance risk (3.5%). The overwhelmingly high percentage of physical risk indicates that the majority of consumers have either experienced or are concerned about health-related problems caused by cosmetic products. Many may unknowingly use items that contain harmful or irritating ingredients, resulting in adverse effects such as skin allergies, rashes, burns, or other dermatological complications. Such outcomes not only affect users' physical well-being but also foster a sense of distrust toward cosmetic brands and products. This heightened concern over safety aligns with recent empirical evidence in Tanzania. For instance, Francis et al. (Francis et al., 2025) found that over half (54.5%) of women reported using skin-lightening products; many experienced permanent hyperpigmentation and adverse skin effects, especially from products containing kojic acid and hydroquinone.

In contrast, the relatively low percentage of time risk reflects only moderate concern about wasting time on products that do not meet expectations or require a long period to show visible results. Similarly, performance risk, defined as the fear that a product will not work as promised, was the least reported concern. This may suggest that while consumers care about effectiveness, their primary focus remains on product safety.

These findings cannot be separated from Tanzania's unique socio-cultural context. Social expectations and cultural norms such as the widespread pressure to maintain lighter skin tones, smooth complexions, and youthful appearances play a crucial role in shaping cosmetic consumption and risk perceptions. The popularity of skin-lightening products in Tanzania, many of which are reported to contain hydroquinone, mercury, or steroids, has heightened awareness of physical risks. Compared to regions where cosmetic use is less tied to cultural beauty ideals or where regulatory enforcement is stronger, Tanzanian consumers display greater sensitivity to safety concerns. This reflects not only the prevalence of unsafe products but also the reality that individuals often compromise health in pursuit of socially and culturally defined standards of beauty.

Moreover, these risk perceptions strongly influence future purchasing behavior. Consumers who have negative experiences with cosmetic products may become reluctant to repurchase similar brands due to fear of repeated dissatisfaction. These results are consistent with Gazali and Suyasa (Gazali and Suyasa, 2020) who found that all dimensions of perceived risk exert a negative and significant effect on purchase decisions. Their study concluded that heightened risk perceptions particularly in online shopping contexts reduce consumers' willingness to make purchases.

Overall, the findings underscore the importance for cosmetic companies to prioritize consumer safety and product integrity. This can be achieved by using clinically tested, skin-safe ingredients; providing clear and honest product labeling; offering educational content on proper usage and potential side effects; and ensuring rigorous quality control. By addressing these factors, companies can rebuild trust and reduce the risks that currently dominate consumers' perceptions.

Effects of Perceived Risk on Purchase Decision

In this section, the author requested that participants explain how perceived risk affected their purchase decisions. The findings from the open-ended responses highlight several key ways in which perceived risk influences consumers' cosmetic purchase decisions. These insights reveal the emotional, psychological, and behavioral shifts driven by negative experiences or heightened awareness of potential harm. Below is a discussion of the main themes observed:

Loss of Trust in Brands or Products

Some respondents revealed that they abandoned previously trusted brands after discovering potential risks, such as harmful ingredients or adverse side effects. Their responses reflected a significant shift in consumer behavior driven by safety concerns.

For instance, one participant shared, "I used to trust one brand, but after realizing the potential harm it could cause, I had to switch." Another noted, "I was loyal to a few products, but once I learned more about the side effects, I started reconsidering."

These observations highlight that brand loyalty among consumers is not absolute but rather conditional. It can be easily disrupted by new information that raises concerns about product safety. When consumers perceive or experience potential harm, they tend to reassess their brand preferences critically. This often results in diminished trust and, ultimately, the abandonment of previously preferred products. These findings align with the study by Maulana and Marsasi (Maulana and Marsasi, 2024), which found that trust significantly influences purchase intentions. This suggests that brand loyalty is highly susceptible to health or safety concerns, and consumers are increasingly inclined to seek alternative products that offer greater safety or transparency regarding their ingredients.

Increased Ingredient Awareness and Scrutiny

Negative experiences, such as allergic reactions, skin irritation, or long-term skin damage, prompted many respondents to become more vigilant and cautious when purchasing cosmetic products. These experiences appear to have significantly influenced their attitudes and behavior, leading to heightened awareness of product safety.

For instance, one respondent stated, "Now, I check everything twice before buying cosmetics just to protect my skin," while another shared, "I now only buy products without hydroquinone after a bad experience."

Such remarks underscore the shift toward proactive risk-avoidance behavior. Rather than relying solely on brand reputation or marketing claims, consumers are increasingly taking responsibility for their safety by scrutinizing ingredient lists, researching product formulations, and avoiding substances linked to previous negative outcomes. This behavior indicates a more informed and self-protective approach to consumption, in which past harm serves as a catalyst for ongoing vigilance and informed decision-making aimed at preventing future health risks.

Reliance on Expert Recommendations

Following adverse experiences with cosmetic products, several respondents reported a shift toward products recommended by medical professionals or skincare specialists.

For example, one participant stated, "Now I only buy what my doctor recommends," while another noted, "A skin specialist helped me understand what suits my skin best."

These responses illustrate a growing consumer tendency to seek validation and assurance from experts before making cosmetic purchases. Medical or professional endorsements function as trust signals, helping reduce perceived risk. In the context of post-incident caution, recommendations from dermatologists or healthcare providers offer a sense of security and legitimacy that marketing alone may fail to deliver. This reliance underscores the importance of expert credibility in influencing consumer behavior, particularly among those who have experienced product-related harm.

Avoidance of High-Risk Categories

Some respondents described complete withdrawal from specific product categories after experiencing negative effects.

For instance, one participant remarked, “After using a product that caused serious damage, I swore off that type of cosmetic completely,” while another expressed concern, saying, “Hair products worry me too. Some of them really damaged the texture of my hair.”

This form of avoidance behavior reveals the severity with which consumers interpret the perceived risks. Rather than searching for safer alternatives within the same category, these individuals chose to eliminate the category from their routine. Such responses highlight categorical rejection rooted in fear, mistrust, or negative associations, demonstrating how deeply perceived harm can influence consumer habits and reshape purchasing patterns.

Emotional Impact of Past Negative Experiences

Beyond rational decision-making, emotional responses such as fear, regret, or anxiety emerged strongly in participant narratives.

One respondent said, “That experience scared me, so I only buy cosmetics products without hydroquinone now,” while another reiterated, “After serious damage, I swore off that type of cosmetic completely.”

These statements reflect the enduring psychological impact of harmful product experiences. Once emotional trauma is associated with a specific product or ingredient, consumers may develop lasting aversions, even if perceived risk is later mitigated or disproven. This highlights the long-term effect of emotional memory on consumer behavior, suggesting that negative experiences can lead to sustained avoidance fueled more by emotional recall than by current evidence or improved product formulation.

Functional Risk (Product Ineffectiveness or Expiry)

In addition to health-related concerns, some respondents pointed to functional shortcomings such as expired products or ineffective formulations as key reasons for discontinuing use.

For example, one participant mentioned, “I used to buy a product that did not even work. That alone made me stop,” while another complained, “Receiving an expired product made me stop buying from that seller.”

These cases indicate that perceived inefficacy or logistical failures (such as poor-quality control) can erode consumer trust even in the absence of direct harm. Functional risk involves not only wasting money and time but also the frustration and inconvenience of unmet expectations. For many consumers, such experiences are sufficient to drive brand switching or complete disengagement from certain retailers and products.

The qualitative findings reveal that perceived risk is associated with noticeable changes in consumer behavior. Respondents described becoming more cautious, increasing their scrutiny of product ingredients, and relying more on expert recommendations. These patterns suggest that negative experiences with cosmetic products contribute to increased consumer awareness and more deliberate purchasing behavior.

Perceived risk plays a significant role in shaping consumer behavior in the cosmetics industry. Negative experiences such as allergic reactions, product inefficacy, or exposure to harmful ingredients often lead consumers to adopt a more cautious and selective approach to purchasing. This heightened vigilance is reflected in a stronger reliance on expert recommendations, such as those from dermatologists or skin care professionals, and an increased focus on examining product ingredients and safety certifications. As a result, consumer trust becomes a fragile yet essential component of brand loyalty. These insights are supported by Narci (Narci, 2023), who found a clear relationship between consumers' perceived risk and their pre-purchase behavior. Similarly, Michałowska et al. (Michałowska et al., 2024) emphasized that greater consumer trust leads to stronger loyalty and lower perceived risk.

To effectively retain and attract risk-sensitive consumers, brands must prioritize safety, transparency, and consistent trust-building. This includes offering clear and honest product labeling, addressing customer complaints with empathy and urgency, and reinforcing claims with evidence-based testing and professional endorsements. Brands that demonstrate genuine commitment to consumer well-being are more likely to earn lasting loyalty, even in a market where skepticism and scrutiny are growing. Ultimately, cultivating trust through transparency and safety is not just a competitive advantage; it is also a fundamental requirement for long-term success in the cosmetics industry.

Risk reduction strategies

Consumers often adopt specific strategies to protect themselves and make safer purchasing decisions in response to the potential risks associated with cosmetic products. These data outline the most common steps taken to reduce perceived risk. As shown in Table 11 below, the most frequently used strategy was checking ingredients before purchase, cited by 52.1% of the participants. Other common approaches included consulting friends (19.2%), reading customer reviews (16.4%), and checking expiration dates (12.3%).

These findings show that consumers are becoming more proactive and informed, particularly when examining product content and relying on social proof. This highlights the importance of cosmetic companies offering transparent ingredient information, honest customer feedback, and clear expiration labeling to support safer and more confident consumer choices.

Risk-Avoidance Measure	Number of Respondents	Percent
Reading Customer Reviews	52	16.4
Checking Ingredients	165	52.1
Consulting Friends	61	19.2
Checking Expire Date	39	12.3
Total	317	100

TABLE 11: Consumer Risk-Avoidance Measure

The findings indicate that consumers adopt different strategies to mitigate risks when purchasing cosmetics, with the majority (52.1%) reporting that they check ingredients before buying. This highlights that physical risk concerns about harmful substances or adverse health effects are the most salient risk perception among consumers. By scrutinizing ingredients, buyers seek to protect themselves from skin irritations, allergies, or long-term damage associated with unsafe cosmetic formulations. This aligns with broader evidence that safety is the foremost consideration in cosmetic consumption within Tanzania and other Sub-Saharan contexts, where counterfeit or poorly regulated products are widespread.

A smaller but notable proportion of respondents (19.2%) rely on consulting friends, which reflects the role of social risk perception. Here, consumers mitigate uncertainty by seeking reassurance from trusted peers, indicating that interpersonal influence plays a role in shaping product trust. This is particularly relevant in environments where brand authenticity and product quality are not guaranteed, and peer experiences serve as informal but powerful risk-reduction mechanisms.

Meanwhile, 16.4% of respondents reported reading customer reviews. This suggests the growing importance of digital risk management strategies, particularly among younger consumers who are more digitally active. Reviews provide insights into product performance and safety, reducing both performance risk and financial risk. However, the relatively low proportion compared to ingredient checking may signal limited trust in online information or restricted access to reliable online platforms among some consumer groups.

Finally, the least frequently used strategy was checking expiration dates (12.3%). This indicates that while consumers are concerned about harmful ingredients, they may underestimate risks related to product shelf life. Expired products can cause physical harm or reduced effectiveness, but the low emphasis suggests limited awareness of this risk dimension or a stronger focus on more visible, immediate concerns such as ingredient content.

Overall, these findings suggest that Tanzanian consumers perceive physical risk as the dominant concern in cosmetic consumption, while social and digital information sources serve as secondary mechanisms to mitigate uncertainty. The low emphasis on expiration dates signals a potential knowledge gap, highlighting the need for consumer education. For cosmetic companies and regulators, this underscores the importance of emphasizing on clear ingredient labeling and regulation to enhance consumer trust; leveraging peer influence and testimonials as credible channels of communication and strengthening awareness campaigns about less-considered risks, such as product expiry.

These findings are supported by Michałowska et al. (Michałowska et al., 2024), who observed that consumers tend to reduce risk by relying on personal experience or positive product reviews. Overall, consumers engage in a range of strategies such as scrutinizing product content and seeking social validation to mitigate risk. For businesses, building trust through transparency, reliability, and strong customer relationships is essential for influencing purchase behavior and reducing perceived risk.

The findings of this study also align with Cox and Rich's PRT, which suggests that consumers adjust their behavior when perceived risk increases. In this study, consumers who reported high levels of physical risk such as fear of skin damage or exposure to harmful ingredients exhibited more cautious purchasing behaviors, including increased information search, careful scrutiny of product ingredients, and avoidance of high-risk product categories. Negative consumption experiences heightened perceived risk and led some consumers to abandon previously preferred brands, reflecting a behavioral adaptation consistent with the theory's assertion that perceived risk significantly influences consumer decision-making processes (Cox and Rich, 1964).

What cosmetic companies can do to build trust

Consumer feedback highlights the growing demand for authenticity, transparency, and accountability in the cosmetics industry. The responses revealed that regaining and sustaining trust requires more than just effective marketing, which demands a genuine, values-driven commitment to consumer safety, scientific rigor, and ethical practices. Below is a discussion of the key themes identified from the data, each offering strategic insights for cosmetic companies that aim to earn and maintain consumer trust. Below is a discussion of the main themes observed:

Scientific Integrity and Inclusivity in Product Development

"The cosmetic companies should do real research. Create products for every skin type such as dry, oily, sensitive and make sure they actually work without causing harm."

Consumers increasingly call for science-backed solutions tailored to their unique skincare needs. Generic one-size-fits-all formulations are no longer sufficient. It is expected that brands will invest in rigorous dermatological research, clinical trials, and inclusive product testing across various skin types, tones, and conditions. To meet these expectations, companies should collaborate with dermatologists and researchers in product development, provide transparent data from efficacy and safety testing, innovate with personalized or adaptive skincare lines that address specific concerns and prioritize inclusivity and evidence-based development, and can position themselves as credible, responsible, and consumer-focused.

Demand for Natural and Safe Ingredients

"The cosmetic companies should use more natural ingredients in order to prevent us from getting dangerous diseases such as cancer."

Ingredient transparency is a critical factor for consumer trust. Many buyers now associate "natural" or "organic" with safety, health, and environmental responsibility. This shift reflects the increasing fear of long-term exposure to synthetic chemicals and their potential health risks. To align with this demand, brands should: simplify ingredient lists and clearly explain each component's function. This approach not only meets consumer expectations but also contributes to broader health and wellness trends that dominate global markets.

Consistency, Safety, and Reliability

"Give us something we can rely on. If your product is safe and honest, we'll keep coming back."

Trust is not established through a single purchase; over time, it is built through consistent performance, visible results, and safety. Consumers want to rely on brands that deliver promises without causing harm or discomfort. To ensure consistency and reliability, brands should maintain stable tested formulations and avoid frequent ingredient changes without notice, set realistic expectations through honest marketing messages, and prioritize long-term user satisfaction over short-term trends or hype.

Consistency in product quality and outcomes not only retains customers but also turns them into brand advocates.

Transparency About Side Effects and Risks

"Tell us the truth especially about side effects. We need to know what we're putting on our skin, now and in the future."

Today's consumers are not only more informed but also more demanding of honesty. They want to make fully informed decisions, including being aware of potential side effects; however, they are rare or mild. Transparency is no longer optional, as expected. Brands should clearly disclose all known risks, allergens, or reactions on packaging and websites; provide easy access to detailed product information through QR codes linking to ingredient detail, mobile apps, or online platforms; and avoid exaggeration or misleading claims that may set unrealistic expectations. When brands openly communicate both benefits and limitations, they foster trust and credibility even in a competitive market.

Ethical Responsibility and a Consumer-Centric Mindset

"Please consider our health, not just profits. We use these products every day; they should be made with care."

This statement captures the emotional essence of consumer trust: people want to feel valued and protected by the brands they support. Ethical behavior, consumer care, and social responsibility are becoming increasingly important in shaping purchasing decisions. Cosmetic companies can build and reinforce trust by prioritizing consumer health and safety over profit, adopting sustainable packaging and environmentally responsible production methods, embracing cruelty-free and fair-trade practices, and maintaining transparency through open communication and honest reporting. When consumers sense that a brand genuinely cares about their well-being, they are more likely to remain loyal even during crises or product setbacks. These findings are supported by Maziriri and Chuchu (Maziriri and Chuchu, 2017), who emphasized that providing consumers with sufficient product information and offering familiar, trusted brands enhances decision-making and increases the likelihood of purchase. In today's market, cosmetic companies must go beyond aesthetics and persuasive marketing to earn lasting consumer trust. Consumers are increasingly drawn to brands that are science-based, transparent, inclusive, ethical, and consistently dependable. Trust is not a one-time accomplishment; it is a continuous relationship that must be nurtured through integrity, empathy, and consistent action. By embracing these values, brands can not only rebuild trust where it has been lost, but also distinguish themselves in a marketplace that is becoming more risk-aware and value-driven.

Are Tanzanian consumers informed about cosmetic risks?

The qualitative responses gathered from Tanzanian consumers revealed that awareness of cosmetic-related risks remains relatively limited. Although there is a small group of informed and cautious individuals, the majority appear to lack sufficient knowledge regarding product safety, correct usage, and potential long-term health implications. This knowledge gap raises significant public health concerns, particularly given the rising popularity and accessibility of cosmetic products in the country. Below is a discussion of the main themes observed:

Lack of Ingredient Awareness

"A lot of people don't really know what's in the products they use. They just go with what friends or influencers recommend."

Many consumers make purchase decisions based on peer influence or social media trends rather than on informed evaluations of product composition or safety. This trend points to a critical need for consumer education and availability of simple and clear ingredient labelling. Without understanding what they apply to their skin, consumers are at a greater risk of exposure to harmful or unsuitable ingredients.

Underestimation of Health Risks

"If more people knew the risks, we wouldn't see so many cases of skin damage from cosmetics."

There is a general underestimation of potential health hazards associated with cosmetic use, particularly concerning skin damage, allergic reactions, and long-term health outcomes. Frequent reports of skin conditions resulting from product misuse suggest that many consumers are unaware of these risks. This highlights the need for public health campaigns to promote risk awareness and proper product use.

Absence of Reliable Educational Resources

"There's really no one educating the public about these products. We're left to figure it out on our own."

The lack of official or trusted educational sources has created an information vacuum, often filled by unqualified individuals, such as peers or online influencers. The absence of structured consumer education contributes to widespread misinformation, leading to improper product selection and use. The government, healthcare providers, and cosmetics companies play a role in bridging this information gap by offering reliable and accessible skincare education.

Cultural and Social Pressure for Skin Lightening

"Some people want to lighten their skin so badly; they ignore the risks. It's sad, but true."
"Even those who know a little often ignore the danger because they're focused on quick results like skin bleaching."

Societal beauty standards, particularly those that favor lighter skin tones, exert immense pressure on individuals and often override concerns about safety. Despite the known dangers of skin-bleaching products, many consumers continue to use them in the pursuit of rapid results. This behavior suggests that cultural norms and social expectations may be more influential than factual health knowledge, making behavioral changes especially challenging.

Reliance on Informal Advice over Professional Help

"Most people don't understand how to choose the right product for their skin type or how long to use it. And when problems happen, they ask friends instead of seeing a specialist."

Many consumers lack access to professional skincare advice and rely on informal guidance from friends or online communities. This trend reflects both a low level of skincare literacy and the limited availability or utilization of dermatological services. Normalizing the use of professional consultations could help to reduce the incidence of product misuse and skin damage.

These findings suggest that many Tanzanian consumers remain uninformed about the risks associated with cosmetic products. Limited ingredient knowledge, a lack of professional guidance, and the powerful influence of social norms contribute to unsafe practices. This situation is further complicated by cultural pressures, particularly around skin lightening, which often overrides rational safety concerns.

Conclusions

This study explored the role of perceived risk in consumer purchasing decisions regarding cosmetic products in Iringa, Tanzania. The findings reveal that consumers consider multiple dimensions of risk when purchasing cosmetic products, with physical risk emerging as the most dominant concern. Consumers appear to prioritize product safety and potential health effects over product performance and convenience. The study further indicates that perceived risk is associated with cautious consumer behavior, including increased information search, ingredient scrutiny, reliance on expert recommendations, and avoidance of high-risk product categories. These behavioral tendencies highlight the importance of trust, transparency, and product safety within the cosmetics market. Additionally, the findings show that consumers actively adopt risk reduction strategies, particularly checking product ingredients and consulting trusted information sources. These behaviors suggest growing consumer awareness and a desire to minimize potential negative experiences associated with cosmetic products. Overall, the study provides important descriptive insights into consumer risk perceptions and purchasing tendencies within the Tanzanian cosmetics market. The findings contribute to marketing knowledge by highlighting the need for cosmetic companies to prioritize product safety, transparent labeling, professional endorsements, and consumer education. Although the study provides valuable insights into consumer perceptions, it relied primarily on descriptive statistical analysis. Future research may employ inferential statistical techniques such as regression or structural equation modelling to examine the strength and direction of relationships among perceived risk dimensions and purchasing behavior across broader populations. Also, the study was confined to a single institution, the findings may provide insights relevant to broader Tanzanian contexts, particularly in semi-urban areas with similar demographic characteristics. Future research should include multiple regions, a more diverse sample, as well as examine the role of digital platforms in reducing perceived risk in Tanzania.

Appendices

The questionnaire used to collect data on consumer demographics, awareness, perceived risk, and purchasing behavior is presented in Table *12*.

Appendix A: A Research Questionnaire

Please tick (✓) the correct answer or write in the space provided.

Section	No.	Question	Response Options
A. Personal Information	**1**	**Age**	**☐18–25☐26–33☐34–41☐42–49☐50 and above**
	2	Sex	☐Male☐Female
	3	Occupation	☐Student☐Employee
	4	How often do you buy cosmetic products?	☐Twice a week☐Once a month☐Once every few months☐Very rarely☐Only when the need arises
	5	Where do you usually buy cosmetics?	☐Regular cosmetic shops☐Supermarket☐ Online☐Exhibitions/agents☐Other: ____________
B. Awareness and Knowledge	6	How do you get information about new cosmetic products?	____ __
	7	What sources do you trust most when choosing cosmetics?	☐Social media☐Friends/relatives☐ Advertisements☐Health/skin professionals☐ Sellers☐Other: ____________
C. Perceived Risk	8	When thinking about buying cosmetics, what risks or concerns do you consider?	____ __
	9	Have you ever had a bad experience with a cosmetic product?	☐Yes☐No If yes, briefly explain: __________________________
	10	Have you ever been concerned about the safety or side effects of cosmetics?	☐Yes☐No
D. Decision-Making Process	11	How does risk perception affect your final purchase decision?	____ __
	12	Are there any cosmetics you completely avoid? Please explain.	____ __
	13	Give one example where you perceived a risk and changed your purchase decision.	____ __
E. Risk Reduction Strategies	14	What steps do you take before buying cosmetics to avoid risks?	☐Reading customer reviews☐Checking ingredients☐Consulting friends☐Checking for certification/approval☐Other: ____________
F. Final Comments	15	In your opinion, what can cosmetic companies do to earn your trust?	____ __

	17	Do you believe most cosmetic users in Tanzania are well-informed about the risks of cosmetics?	

TABLE 12: A Research Questionnaire

Additional Information

Author Contributions

All authors have reviewed the final version to be published and agreed to be accountable for all aspects of the work.

Concept and design: Blandina Kisawike

Acquisition, analysis, or interpretation of data: Blandina Kisawike

Drafting of the manuscript: Blandina Kisawike

Critical review of the manuscript for important intellectual content: Blandina Kisawike

Disclosures

Human subjects: Consent was obtained or waived by all participants in this study. University of Iringa issued approval UoI/PF/218/07/63. **Animal subjects:** All authors have confirmed that this study did not involve animal subjects or tissue. **Conflicts of interest:** In compliance with the ICMJE uniform disclosure form, all authors declare the following: **Payment/services info:** All authors have declared that no financial support was received from any organization for the submitted work. **Financial relationships:** All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. **Other relationships:** All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work.

Data Availability Statements

The datasets (and/or code) supporting this study are available from the corresponding author upon reasonable request.

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