

THE IMPACT OF DEMOGRAPHIC CHARACTERISTICS AND KNOWLEDGE ON THE REPURCHASE INTENTION OF CONSUMERS' SKINCARE IN CAN THO CITY IN 2022 - 2023

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ABSTRACT

Background: The demand for skincare cosmetics is increasing. Markets currently offer a variety of skincare. However, the understanding of these products is still limited. These products have not been deeply researched on the knowledge and related factors that affect the intention to repeat purchase of skin care cosmetics. This study investigates the knowledge and related factors about skincare cosmetics among customers and makes a judgment about the intention to buy skincare cosmetics. **Objectives:** To evaluate the impact of demographic characteristics and knowledge on the repurchase intention of skincare in Can Tho city between December 2022 and September 2023. **Materials and methods:** A cross-sectional descriptive study was conducted using the Theory of Planned Behavior (TPB) questionnaire. The survey targeted 531 consumers from nine districts in Can Tho city, who were at least 16 years old and had purchased skincare products at least twice. Data was collected through face-to-face interviews using a survey toolkit, aimed at evaluating knowledge and the intention to repurchase skincare cosmetics. Data analysis was performed using Microsoft Excel 2016 and SPSS 20. **Results:** Female gender, age 18-35, and high school and university students were a substantial proportion of respondents, accounting for 74.6%, 64.4%, and 35.4%, respectively. The majority of survey participants agreed with the idea that regular use of skincare cosmetics will improve skin problems. **Conclusions:** Consumers with extensive knowledge of skincare products, those with postgraduate degrees, those with a monthly income of more than 10 million VND, and healthcare workers have the best understanding of these products. These results suggest that businesses producing skincare cosmetics should focus their product information on the most relevant customer groups.

Keywords: Cosmetics, skincare, knowledge, customers, Can Tho city.

I. INTRODUCTION

Cosmetics are a relatively popular and convenient means of beauty care. According to a January 2020 survey by Asia Plus, 60% of women in this age-group use skincare cosmetics daily. The average expense of cosmetics significantly increased from 300.000 VND in 2019 to 432.000 VND in 2020. Accordingly, the number of cosmetic users among youngsters tends to rise rapidly, especially those aged 16 to 22 [1]. In 2020, there was research on female consumer behaviour toward cosmetic items at the Kerala Government College of Arts and Sciences in India. People discovered that demographic characteristics like age, dwelling areas, education levels, and occupational status affected women's cosmetics purchasing behaviour [2]. In 2022, another investigation of the purchase intention

of skincare in Bangladesh found three personal factors substantially affecting customer intent. They included self-images, ageing effects, and physical attractiveness [3]. Recently, domestic studies have also focused on the selection of skincare cosmetics. In 2021, when researching the factors affecting women's intention to buy melasma treatment products in Ho Chi Minh city, the author identified five key factors strongly affecting customer intentions. Those are the celebrity influence, price, quality, product packaging, and the age of customers [4]. It is to retain potential customers and stick them around for a long time that helps manufacturers boldly invest in their manufacturing process. We conducted the study to evaluate how demographics and knowledge impact consumers' intention to buy skincare cosmetics in Can Tho city in 2022-2023.

II. MATERIALS AND METHODS

2.1. Materials

Individuals within Can Tho city who purchased skincare cosmetics at least twice between December 2022 and September 2023.

- Inclusion criteria: Individuals within nine districts in Can Tho city who certainly purchased skincare cosmetics at least twice were at the age of 16 and above in 2022-2023.

- Exclusion criteria: Individuals under 16 years old; first-time skincare cosmetics purchasers; individuals unable to answer the survey; respondents who did not answer all the questions; those who refused the survey; and those who have never used skincare cosmetics.

2.2. Methods

- Research design: A cross-sectional description and customer interviews that use a designed questionnaire.

- Sample size and sampling method:

Sample size: This study is a part of the research content on the skincare cosmetics repurchase intention via a set of questions about Knowledge (27 questions), the attitude (6 questions), the signal quality (8 questions), the trust in retailers (6 questions), the repurchase intention (7 questions). Therefore, the study sample size was calculated based on the scale of attitudes, signal qualities, trust in retailers, and repurchase intent (totaling 16 questions). We use Cronbach's alpha and EFA coefficients to standardize the question set. To use EFA, the sample size must be large enough to determine and based on the minimum and the number of measurement variables included in the analysis. According to Serena Carpenter, the minimum observation/variable ratio is 5:1; which means one measurement variable requires at least five observation samples, and the optimal ratio is 20:1. As the scale of this study after adjustment consists of 16 questions, the minimum sample rate is 135, the optimal is 540. In reality, the number of samples to take for the study was 531 for an objective and accurate evaluation fitted the sample size, the condition of the sample selection [11], and the sample selection method.

Select a convenient random sample of 531 permanent residents in Can Tho city.

- Contents of the study: The questionnaire includes 2 sections:

Assessing the impact of demographic characteristics such as gender (male, female); ages (The questionnaire includes two sections: 1) Assessing the impact of demographic characteristics such as gender (male, female), age groups (under 18, 18-35, 35-50, 50 and above), educational level (high school, intermediate/college, university, postgraduate),

income (less than 3 million VND, 3-5 million VND, 5-10 million VND, more than 10 million VND), career (Student, laborer, healthcare worker, office staff, private enterprise owner, entrepreneur, small business owner, teachers, housewives, and others), and living area (rural, suburban, urban) to summarize the impact of each factor on consumers' repurchase of skincare cosmetics."

The 5-point Likert scale, which is a relatively popular measurement scale in scientific research questionnaires, was used to validate the opinions, behaviors, and perceptions of each individual in this section. In this study, responses to the questions were scored in the following order: 1 = "Strongly disagree", 2 = "Disagree", 3 = "Partially agree", 4 = "Agree", 5 = "Strongly agree".

We divided into 2 group: Have not (less than 3 points) in which participants scored points 1 and 2; Have (over 3 points) for points 3,4,5.

Assessing the impact of knowledge: using a series of questions with a total general knowledge score (16 questions). These questions cover various aspects, each right answer is worth one point, classified into 3 levels:

+ Poor general knowledge: under 50% of the overall score (less than 8 points).

+ Middling general knowledge: from 50% to 70% of the overall score (from 8 to 11 points).

+ Good general knowledge: greater than 70% of the overall score (from 11 points and above) [12].

- **Evaluation method:** Take the figure of consumers in the group that needs to get the ratio in which they have correct response divided by the overall figure of questioned consumers and multiply by 100 to get the in-need percentage of consumers in the knowledge group.

- **Data analysis:** We analyzed data using Microsoft Excel 2016 and SPSS 20.0 for all data collected. To describe the correlation between knowledge and consumer skincare cosmetics repurchase intention, we utilized Nonparametric Tests Spearman's correlation coefficient, which were a group of statistical methods used when the data does not follow a normal distribution. If we examined this list of significant statistics (Sig. < 0.05) and the absolute value of the Pearson correlation coefficient ($|r|$ closer to 1), the surveys were correlated in the population.

III. RESULTS

3.1. Evaluate the impact of demographic characteristics on the repurchase intention of skincare customers in Can Tho city in 2022-2023

Table 1. Demographic characteristics related to consumers' intention to repurchase of skincare cosmetics

Characteristics of the study sample		Purchase intent		p-value
		Have not (less than 3 points)	Have (over 3 points)	
Gender	Male	30 (22.2)	105 (77.8)	0.015
	Female	53 (13.4)	343 (86.6)	
Age	Under 18 years old	10 (29.4)	108 (70.6)	0.062
	From 18 to 35 years old	54 (15.8)	288 (84.2)	
	From 35 to 50 years old	19 (13)	127 (87)	
	Over 50 years old	0 (0)	9 (100)	

Characteristics of the study sample		Purchase intent		p-value
		Have not (less than 3 points)	Have (over 3 points)	
Education	High school	19 (16.4)	97 (83.6)	0.440
	Intermediate/College	8 (9.6)	75 (90.4)	
	University	46 (16.8)	228 (83.2)	
	Postgraduate	10 (17.2)	48 (84.4)	
Monthly income	Less than 3 million VND/ dependent on family	32 (18.5)	141 (81.5)	0.538
	From 3 million to less than 5 million	19 (16.1)	99 (83.9)	
	From 5 million to less than 10 million	21 (34.3)	143 (87.2)	
	More than 10 million	11 (14.5)	65 (85.5)	
Career	Student	33 (17.6)	155 (82.4)	0.957
	Laborer	4 (13.8)	25 (86.2)	
	Healthcare worker	19 (15.6)	103 (84.4)	
	Office worker	8 (13.3)	52 (86.7)	
	Private enterprise owner/entrepreneur/small business	11 (13.1)	73 (86.9)	
	Teacher	1 (9.1)	10 (90.9)	
	Homewife	4 (21.1)	110 (82.7)	
	Others	3 (16.7)	15 (83.3)	
Living area	Rural area	23 (17.3)	110 (82.7)	0.109
	Suburban area	9 (8.8)	93 (91.2)	
	City area	51 (17.2)	245 (82.8)	

The proportion of female who intend to buy skincare cosmetics (86.6%) is higher than that of men (77.8%) ($p=0.015$). The proportion of respondents who was more likely to use skincare cosmetics than the rest of the groups was 88.2% ($p=0.014$).

3.2. Evaluate the impact of customers' knowledge on the repurchase intention in Can Tho city in 2022-2023

Table 2. Current state of consumer knowledge about skincare cosmetics

Knowledge	Quantity (N)	Proportion (%)
Good	161	30.3
Middling	360	67.8
Poor	10	1.9

The majority of consumers (67.8%) have average or higher knowledge. There were 161 knowledgeable persons with good knowledge, which was a lower proportion (30.3%) than the rate of middling knowledgeable persons. The number of consumers with poor knowledge was 10, accounting for the lowest proportion (1.9%).

Table 3. The percentage of consumers who have correct answers in each question on knowledge

Question	Correct		Incorrect	
	n	%	n	%
What are skincare cosmetics? (The correct answer is "Products for external use, cleaning/perfuming/changing the appearance, appearance, protecting or maintaining the skin in good condition")	494	93.0	37	7.0
What are the different types of skincare cosmetics? (The correct answer is "Skincare products, makeup, sunscreen, special treatment	507	95.5	24	4.5

Question	Correct		Incorrect	
	n	%	n	%
cosmetics, preventive cosmetics (prevent acne), cosmetics to support the treatment of skin problems such as acne, melasma, scars,...”)				
The ingredients may be found in skincare cosmetics (The correct answer is “Herbs/chemicals synthesized or of natural origin”)	490	92.3	41	7.7
Which state agency is responsible for the state administration of skincare cosmetics? (The correct answer is “Drug Administration and Department of Health”)	486	91.5	45	8.5
Skincare cosmetics are generally suitable for all types of users (False)	482	90.8	49	9.2
Before using skincare cosmetics, you need to test on a small area of skin (True)	513	96.6	18	3.4
What age do you believe appropriate for using skincare cosmetics? (The correct answer is A)	499	94.0	32	6.0
Skincare cosmetics of uncertain origin (containing corticoid) adversely affects the skin (True)	516	97.2	15	2.8
Skincare cosmetics always suit all skin types (False)	522	98.3	9	1.7
Is it true that skincare cosmetics offered online are frequently worse than cosmetics sold in genuine stores? (True)	475	89.5	56	10.5
It is recommended to use a combination of multiple skincare cosmetics to increase efficiency (True)	518	97.6	13	2.4
The cost is the determinant of skincare cosmetics quality (True)	501	94.4	30	5.6
Skincare cosmetics should be for daily use instead of regular one, which will not be highly effective (True)	491	92.5	40	7.5
Skincare cosmetics will help damaged skin restore to its original state (False)	483	91.0	48	9.0
Skincare cosmetics will stop the skin senescence (True)	494	93.0	37	7.0
If you use a combination of cosmetics, how will you use the following? (The correct answer is “Choose types that can be used at the same time and vice versa ”)	476	89.6	55	10.4

A large number of respondents answered correctly about the definition of skincare cosmetics 93%, and only 7% of consumers did not define skincare cosmetics correctly. A greater number of consumers have the correct answer about the composition of skincare items and the cosmetic quality administration agency with rates of 92.3% and 91.5%, respectively. When surveying knowledge about using skincare cosmetics, 96.6% of consumers said that should be tested first on a small area of skin.

Table 4. Correlation between knowledge score and consumer skincare cosmetics repurchase intention

Spearman's Rho correlation	Quantity (N)		Purchase intent
	R	Sig.	
Practical knowledge scores through surveys			0.016
			0.713
	N		531

There was no negative and weak correlation between knowledge scores and consumers' intention to purchase skincare cosmetics ($r=0.016$, $p>0.001$). It means knowledgeable persons will intend to repurchase skincare cosmetics.

IV. DISCUSSION

4.1. Discuss the impact of demographic characteristics on the repurchase intention of skincare customers in Can Tho city in 2022-2023

Our research indicates that numerous consumers surveyed are female, accounting for 86.6%; this result is relatively different from other authors' studies on skincare cosmetics consumer behaviour, such as the 2022 study by Samir Das *et al.*, the proportion of men and women surveyed about their intention to buy skincare products in Bangladesh was 54.4% and 45.6%, respectively [3]. This difference is due to differences in skincare cosmetics intent and repeat using surveys, female consumers tend to use skincare cosmetics longer than men. The proportion of consumers aged 18-35 using skincare items was high, at 84.2%. Most of them have jobs, earnings, and a high demand for beauty products. However, this is different from the study by Nguyen Thi Dan Thanh in 2017, which examined the factors affecting the decision to buy cosmetics online in Ho Chi Minh city. In that study, the age group of 25-27 accounted for the largest proportion at 33.7% [5]. Similarly, the study by Thoa *et al.* in 2020 on consumers' buying behavior for natural origin cosmetics in An Giang found that the age group of 25-35 years old accounted for the highest proportion, with 56.0% [6]. A lot of consumers surveyed are living in cities 82.8%, the findings have not included great dissimilarity compared with the study of men's behaviours toward skincare purchases, by Edakkotte Shaji in India in 2020, which most customers participating in the survey, with a rate of 62%, are living in cities [2]. This is the living area where consumers most easily shop for skincare cosmetics. Regarding the careers of respondents in our survey, the largest proportion were students, accounting for 82.4%. This contrasts significantly with the study by Rambabu Lavuri and Sreeramulu in 2019, which found that the highest proportion of respondents were students, accounting for 39% [7].

4.2. Discuss the impact of customers' knowledge on the repurchase intention in Can Tho city in 2022-2023

The majority of consumers surveyed in the study possessed accurate knowledge of skincare cosmetic types (>90%). In a 2013 survey on differences in consumer perceptions when purchasing cosmetic products in Malaysia, Samin Rezvani *et al.* found a significant correlation between knowledge of products and acceptance intent to purchase cosmetic products (for every unit of product knowledge increased, the intent to purchase increased by 9.8%) [8]. According to qualitative research conducted in 2021 by author Dinh Tien Minh, respondents all had skin improvements and saved time and money as well when they actively sought cosmetics information [9]. That was the same year Puja Roshani *et al.* studied variables impacting men's cosmetics purchase behaviour in Ghaziabad, most customers actively obtained information about cosmetics before purchasing these items [10]. A better understanding will help buyers acquire relevant knowledge about skincare cosmetics, enabling them to have the best experience when trying out new products. The desire to possess healthy and flawless skin is always a top priority for beauty enthusiasts. Therefore, expanding on this idea would involve emphasizing the importance of informed decision-making, education about skincare ingredients, and the significance of personal skincare routines tailored to individual needs.

V. CONCLUSION

Our study focuses on respondents who have different educational levels, monthly incomes, careers, and living area and they have different knowledge of skincare cosmetics. In terms of education, consumers with postgraduate degrees have the highest knowledge scores, making them the most educated group, which is quite reasonable given their superior knowledge of cosmetics. Besides, monthly income, people with income above 10 million VND monthly often become potential investors, so the knowledge score is also the highest. Medical workers often have expertise in the field of health sciences, so when assessed for cosmetic knowledge, they have higher knowledge scores than other careers. From our research data, most of the consumers surveyed have good knowledge about skincare cosmetics. Among them, those who were highly educated, living in cities and earning well seemed to have better knowledge of skincare cosmetics. Knowledge of a product positively influences customer shopping behaviour, so we hope that our research will contribute to customer retention orientation for skincare manufacturing and distribution companies.

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