

# The Factors Influencing Cosmetic Product Purchasing Among Malaysian Consumers: A scoping review

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**Abstract:** The Malaysian cosmetics industry has experienced significant growth, yet the factors influencing consumer purchasing behaviour in this sector remain underexplored. The current study aimed to systematically assess the factors influencing cosmetic product purchasing among Malaysian consumers. A systematic review of relevant articles was conducted using three electronic databases: Web of Science, Scopus, and ScienceDirect, covering the period from 2013 to 2023. The inclusion criteria were all study designs investigating or reporting factors influencing cosmetic product purchasing, with full-text articles available. Articles were excluded if they were conference proceedings, books, encyclopaedias, protocols, or published in languages other than English. Predetermined search strings were used to identify relevant articles. A total of 2,823 research articles were located, and 38 articles were included in the review. The majority of the studies utilized the Theory of Reasoned Action and the Theory of Planned Behaviour (n=18) as theoretical frameworks to predict consumer purchasing behaviour for cosmetic products. The Stimulus-Organism-Response (SOR) Model was used in the current study as a conceptual framework to classify the factors influencing consumer purchasing behaviour. The identified factors were categorised into stimuli, organism, and response. The stimuli identified included social and marketing stimuli, with marketing stimuli, consisting of extrinsic and intrinsic factors, emerging as the predominant factors studied (n=74) compared to social stimuli (n=16). These stimuli trigger consumer evaluation, known as the organism, and lead to a response. The organisms identified were theoretical adaptation (n=65) and psychological evaluation (n=3), which ultimately determine consumer purchasing behaviour and actual product purchasing. This study has illuminated the multifaceted stimuli influencing consumer behaviour, encompassing marketing and social stimuli. These stimuli shape consumers' beliefs, values, and perceptions, subsequently developing their purchasing behaviour. Recognising and adapting to these drivers enables companies to tailor their strategies effectively, addressing the evolving needs and preferences of Malaysian consumers related to cosmetic products.

Keywords: Consumer behaviour, Cosmetics, Malaysia, Marketing stimuli, Purchasing factors

## Introduction

Nowadays, people perceive the application of cosmetic products as a necessity rather than a luxury to achieve desired beauty standards. The cosmetics market has experienced progressive growth since the Egyptian, Greek, and Roman eras, subsequently developing into one of the most invaluable industries worldwide [1]. The global cosmetics market is projected to generate approximately £294.40 billion in sales by 2027 due to the significant growing demand for cosmetic products [2]. Similarly, the cosmetics market in the Asia-Pacific region alone has shown progressive development to satisfy high consumer demand [3,4]. Notably, Malaysia has emerged as a prominent industrial player, showing rapid growth in the cosmetics industry [5-7]. Moreover, the cosmetics industry in Malaysia is projected to reach £1,214 million by 2027, with an annual growth rate of 10% [2,8].

The use of “cosmetic product” and “skincare product” terminologies is often ambiguous, as both terms are used interchangeably by consumers. “Cosmetic product” is an umbrella term that comprises various subcategories, including skincare products, hair care products, oral care products, nail care, and makeup, while “skincare product” is a subcategory under cosmetic products. Both terms are used to refer to products designed for cleansing, massaging, moisturizing, and other functions aimed at optimizing the external parts of the human body, including the skin, nails, and lips [9-12]. Among the cosmetic subcategories, skincare products are the leading products within the global cosmetic industry. They are particularly significant in Malaysia, where the skincare market constitutes approximately 30% of the overall cosmetics market [13-15].

Several factors have been reported to influence the increasing demand for cosmetic products. In contemporary society, more people are conscious of their appearance, leading to a growing number of individuals seeking healthier skin, improved self-image, and enhanced appearance [15-17]. Furthermore, cosmetic products are no longer exclusive to women. A

survey study by Infante et al. [18] among 49 men and 52 women residing in Brazil revealed that both genders show interest in cosmetic products driven by different motivations. Similar findings were observed in Malaysia, where it was revealed that most Malaysian male consumers invest in skincare products to achieve healthy skin, a good appearance, and to reduce acne or freckles [9]. Good quality for healthy skin encompasses radiance, a glowing, and rejuvenated appearance [19]. Consequently, many individuals opt to purchase skincare products to age gracefully while seeking methods to mitigate skin problems such as wrinkles and acne [16, 20-23].

Purchase decisions on skincare products among younger generations are often triggered by concerns about the progressive deterioration of facial appearance due to aging [24-26]. It has been reported that cosmetic products improve self-esteem and help individuals engage confidently in their social and professional relationships [27]. Increasing public awareness of fashion, health, fitness, and beauty, along with rising incomes, has also contributed to the growth of the cosmetic industry [15,24,28-30]. Moreover, technological advancements and social media have played a pivotal role in influencing market trends and consumer preferences by disseminating information and raising awareness among a broader audience. Consequently, several small and medium-sized enterprises (SMEs) have developed and marketed their own skincare products, further bolstering the skincare market to meet the high and growing demand from customers.

With the growing demand for cosmetic products in Malaysia, there is a need to assess the conceptual framework and determinant factors associated with cosmetic product purchasing in the country. Additionally, past studies have reported a lack of awareness and understanding of the factors underpinning consumer purchasing behaviour among cosmetic product manufacturers and marketers [13,31]. Therefore, this study aims to conduct a scoping review to provide a better understanding of the determinant factors and conceptual framework involved in cosmetic product purchasing in

Malaysia. The findings of this study are anticipated to be of substantial value to cosmetic product retailers and marketers, helping them strengthen their marketing strategies and effectively meet the evolving needs of their customers.

## Methodology

This study was conducted as a scoping review of prior research investigating the factors that may influence cosmetic product purchasing among consumers in Malaysia. The study employed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 statement to report the study outcomes and the process of retrieving relevant articles. The process comprised three search strategies: identification, screening, and inclusion, as illustrated in **Figure 1**.

### Identification

Initially, all relevant articles were systematically searched and identified across three electronic databases: Web of Science (WOS), Scopus, and ScienceDirect, from 25th August 2023 to 1st September 2023. The current study employed a specific search string comprising: ((Purchase OR Buy OR Consume) AND (Factor OR Determinant) AND (Intention OR Behaviour OR Decision) AND (Cosmetic OR Personal Care OR Skin Care OR Beauty Care) AND (Malaysia)). Boolean operators, such as “AND” and “OR,” were strategically used to enhance the sensitivity and specificity of the article retrieval process. Subsequently, the identified articles were meticulously imported into a reference manager, Mendeley®, to ensure that the retrieved articles were organized systematically.

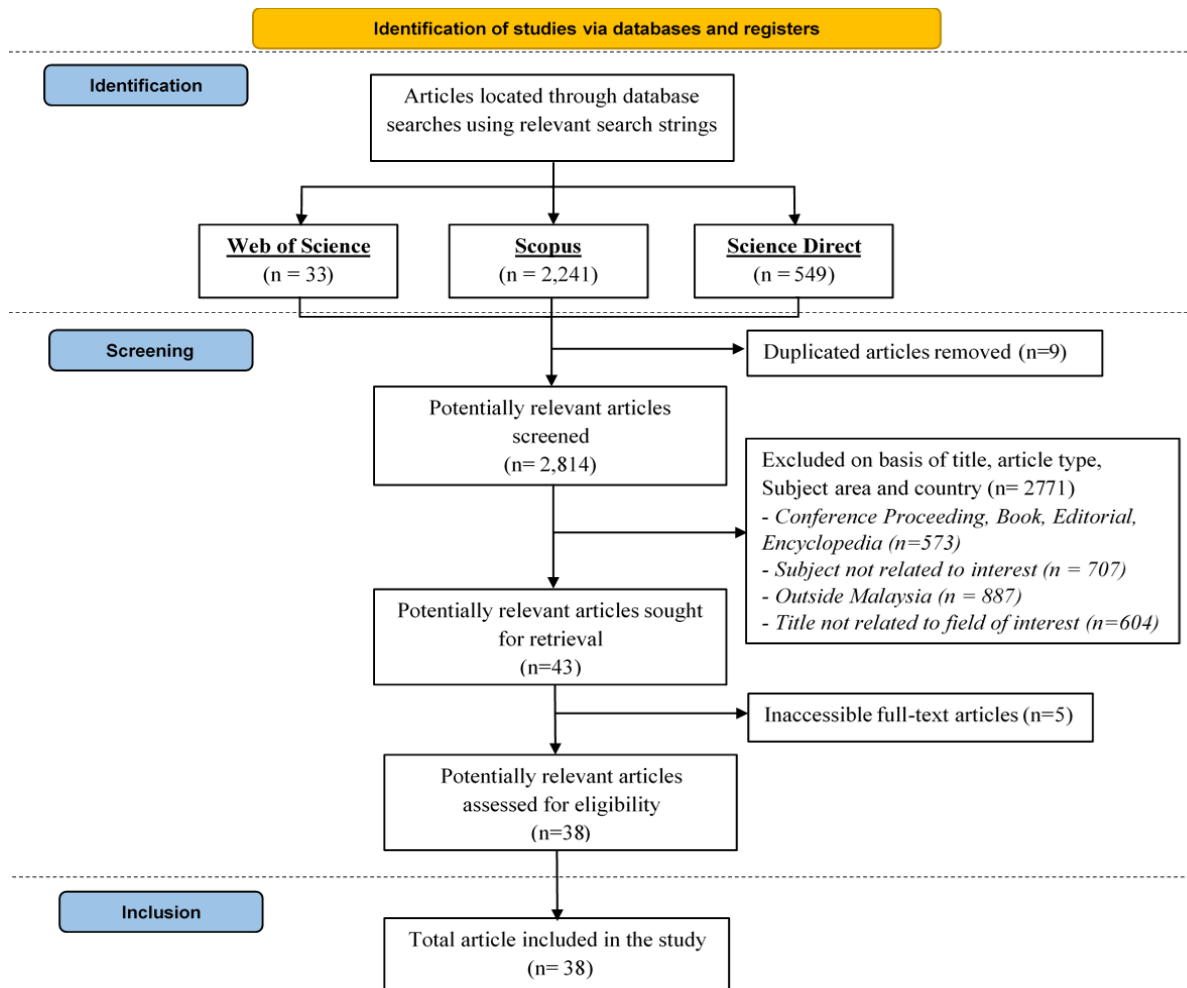
### Screening

The articles underwent a rigorous screening process to determine their eligibility based on predefined inclusion and exclusion criteria,

which encompassed evaluations of their title, abstract, and full-text content. The inclusion criteria were as follows: studies conducted between 2013 and 2023, reporting determinant factors influencing cosmetic product purchases, and accessibility to the full-text articles. Conversely, the exclusion criteria included conference proceedings, books, encyclopaedias, protocols, and articles published in languages other than English. These screenings were conducted to ensure that the selected articles were relevant, peer-reviewed, and of high quality [32]. The initial screening involved assessing article titles, followed by a review of abstracts and main findings by MFR, with cross-checking by EMH. In cases where uncertainty or ambiguity arose, a collaborative review by both MFR and EMH preceded the final determination of article inclusion or exclusion.

### Inclusion

All included and excluded full-text articles were assessed independently by MFR and EMH to ensure the validity of the process. Any discrepancies in article exclusion and inclusion were resolved through a consensus-based approach. Relevant information pertaining to key study characteristics, such as authorship, publication year, study design, research setting, study objectives, and findings on the determinant factors influencing cosmetic product purchasing, was extracted from all eligible articles and documented in an extraction table. The current study applied the Stimulus-Organism-Response (SOR) model to categorize the included determinant factors involved in cosmetic product purchasing into three distinct categories: stimuli, organism, and response. MFR and EMH extracted the data individually and compared the results to identify similarities and discrepancies. Reasons for article exclusion were recorded in a spreadsheet.



**Figure 1** PRISMA flow chart on the summary of the screening process for articles selection.

## Results

The current study located 2,823 research articles across three electronic databases: Web of Science (WOS), Scopus, and ScienceDirect, using the predefined search query. Based on the inclusion and exclusion criteria, a total of 38 pertinent research articles were included in the study, while the remaining 2,785 articles were excluded. The exclusions were primarily due to several factors: titles not related to the field of interest (n=604), studies not conducted in Malaysia (n=887), irrelevance to the subject field of interest (n=707), conference proceedings (n=573), duplication (n=9), and inaccessibility to full-text articles (n=5), as illustrated in **Figure 1**.

## Research article characteristic

Among the 38 research articles included in the analysis, the majority were quantitative studies (n=31), followed by qualitative studies (n=5) and mixed-method studies that combined both qualitative and quantitative approaches (n=2). A substantial portion of the quantitative studies employed self-administered questionnaires (n=32), while the qualitative studies predominantly involved interviews (n=2) and literature reviews (n=7) extracted from electronic databases. Interestingly, varied terminologies were used to denote cosmetic products, such as 'beauty product' (n=4) and 'skincare products' (n=4). Nevertheless, the majority of articles used the term 'cosmetic product' in their studies (n=26).

A notable proportion of the research studies aimed to assess Halal cosmetic products (n=19), followed by general cosmetic products (n=17), non-Halal certified cosmetic products (n=1), and luxury brand cosmetic products (n=1). Moreover, four articles evaluated eco-friendly products, encompassing organic, natural, or green cosmetic products (n=4). With respect to study design, the majority of quantitative studies used convenience sampling techniques to recruit respondents (n=15), while qualitative studies employed content analysis (n=4) to extract relevant research articles. Furthermore, most respondents were approached via online surveys (n=14) through email, WhatsApp, and social media platforms such as Facebook and Instagram. Additionally, survey studies were primarily centred in the Klang Valley region, Malaysia (n=16), followed by Penang (n=2), the east coast of Malaysia (n=1), and Johor (n=1). It's worth noting that a number of articles did not specify the precise location within Malaysia (n=16).

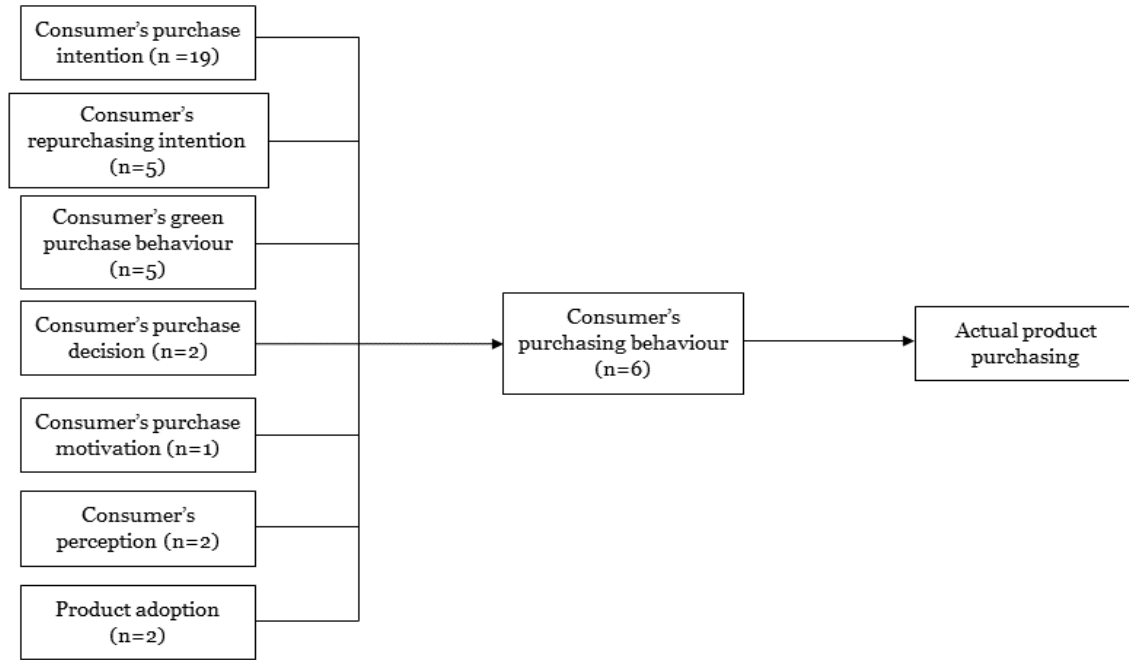
Regarding respondents' demographics, some studies focused on Muslim consumers (n=9) and non-Muslim consumers (n=1) for cosmetic product use, although the majority involved the general consumer population (n=28). Most studies did not explicitly specify respondents' ages in the sample inclusion criteria (n=18); nonetheless, most studies primarily focused on young Malaysian adults aged between 18 and 40 years. In relation to sample size, the majority of studies involved a moderate sample size ranging from 100 to 299 respondents (n=16). The current study observed that different articles employed varied responses or outcomes to elucidate consumer purchasing behaviour towards cosmetic products. These responses predominantly included purchase intention (n=19), followed by repurchase intention or continuance of use (n=5), purchase behaviour (n=6), green purchase behaviour (n=5), purchase decision (n=2), purchase motivation (n=1), consumer perception (n=2), and

product adoption (n=2), as shown in **Figure 2**.

In terms of theoretical frameworks, most research articles incorporated two closely interrelated theories to evaluate consumer purchasing behaviour for cosmetic products: The Theory of Planned Behaviour (n=10) and the Theory of Reasoned Action (n=8). Additionally, it is noteworthy that the Value-Belief-Norms theory was the primary theoretical framework (n=3) applied in assessing green purchase behaviour towards eco-friendly cosmetic products. The theoretical frameworks used in the included studies serve as a basis for understanding consumer behaviour and decision-making processes in cosmetic product purchasing. The summary of study characteristics related to cosmetic product purchasing is presented in **Table 1**.

#### *Determinant factors*

The current study applied the Stimuli-Organism-Response (SOR) model due to its comprehensive perspective, flexibility, good predictive power, and widespread acceptance in classifying the determinant factors into stimuli, organism, and response [69]. The SOR model, introduced by Mehrabian and Russell in 1974, is derived from the input-output model and explains rational purchasing behaviour decisions [70]. In this model, stimuli are categorized into social stimuli and marketing stimuli, while the organism encompasses theoretical adaptation and psychological evaluation, which subsequently leads to the response that determines consumer behaviour. Notably, the results revealed that marketing stimuli (n=74) were the primary focus of investigation in the research articles, compared to social stimuli (n=16). The investigated marketing stimuli primarily consisted of extrinsic factors (advertisement, celebrity endorsement, branding, and product image) (n=58), followed by intrinsic factors (product quality, product value, product ingredients and safety,



**Figure 2** Consumer’s purchasing behaviour predictors.

**Table 1** Summary of retrieved study characteristic.

Characteristic	Studies, n
<b>Publication year</b>	
2013	1
2014	1
2015	1
2016	3
2017	3
2018	5
2019	6
2020	5
2021	3
2022*	8
2023	2
<b>Publishing journal</b>	
Journal of Social Science	1
Journal of Islamic Marketing*	<b>5</b>
Journal of Social Sciences & Humanities	1
Cosmetics, MDPI	1
International Journal of Ethics and System	1
International Journal of Pharmaceutical and Healthcare Marketing	2
Journal of Cosmetic Dermatology	1
International Journal of Environmental Research & Public Health	1
Global Journal Al-Thaqafah	1
Sustainability, MDPI	1
Procedia Economics and Finance	2
Journal of Retailing and Consumer services	1

Procedia Social and Behavioural Science	1
Malaysian Journal of Consumer and Family Economics*	5
International Journal of Supply Chain Management	1
Academy of Entrepreneurship Journal	1
American Scientific Publishers	1
Management Science Letters	2
Journal of Islamic Monetary Economics and Finance	1
Iranian Journal of Management Studies (IJMS)	1
International Journal of Business and Society	1
Journal of Computational and Theoretical Nanoscience	1
Malaysian Journal of Syariah and law	1
WSEAS Transactions on Business and Economics	1
Journal of Islamic Accounting and Business Research	1
Journal of Asia Business Studies	1
Romanian Journal of Communication and Public Relations	1
<b>Terminology used to refer cosmetic product</b>	
Cosmetic product*	26
Beauty product	4
Personal care product	2
Skincare product	4
Nutricosmetic product	2
Facial care product	1
<b>Cosmetic product type</b>	
Halal*	19
General	17
Non-halal certified	1
Luxury brand	1
Eco-friendly / organic / natural / green	4
<b>Study design</b>	
Quantitative study*	31
Qualitative study	5
Mixed	2
<b>Methodology</b>	
Self-administered questionnaire*	32
Interview	2
Literature review	7
<b>Sampling technique (quantitative)</b>	
Systematic sampling	2
Convenience sampling*	15
Selective sampling (judgemental / purposive)	9
Quota sampling	2
Simple random sampling	1
Not mentioned	4
<b>Data extraction method (qualitative)</b>	
PRISMA	2
Content analysis approach*	4
Thematic analysis	1
ROSES	1

<b>Setting</b>	
Mall / supermarket	10
University	4
Online*	14
Not specified	3
In-person	7
Electronic database	7
<b>Location</b>	
Klang Valley, Malaysia*	16
Penang, Malaysia	2
Johor, Malaysia	1
East Coast, Malaysia	1
Location not specified*	16
<b>Respondents</b>	
Muslim	9
Non-Muslim	1
General*	28
<b>Inclusion age</b>	
18 – 60 years old	15
Not specified*	18
Not applicable	5
<b>Sample respondents</b>	
<100	3
100-299*	16
300-499	12
> 500	2
<b>Measurement outcome</b>	
Purchase Intention*	16
Repurchase Intention/Continuance	5
Purchase Decision	2
Purchase Behaviour	5
Green Purchase Behaviour	5
Product Adoption	2
Consumer's Perception	2
Purchase Motivation	1
<b>Theoretical framework</b>	
Theory of Reasoned Action	8
Theory of Planned Behaviour*	10
Economic Signalling Theory	1
Value-Belief-Norm Theory	3
Stimulus-Organism-Response	4
Diffusion of Innovation	2
Theory of Consumption Value	2
Elaboration Likelihood Model	1
Social Cognitive Theory	1
Social Identity Theory	1
Social Influence Theory	1
Self-Congruity Theory	1



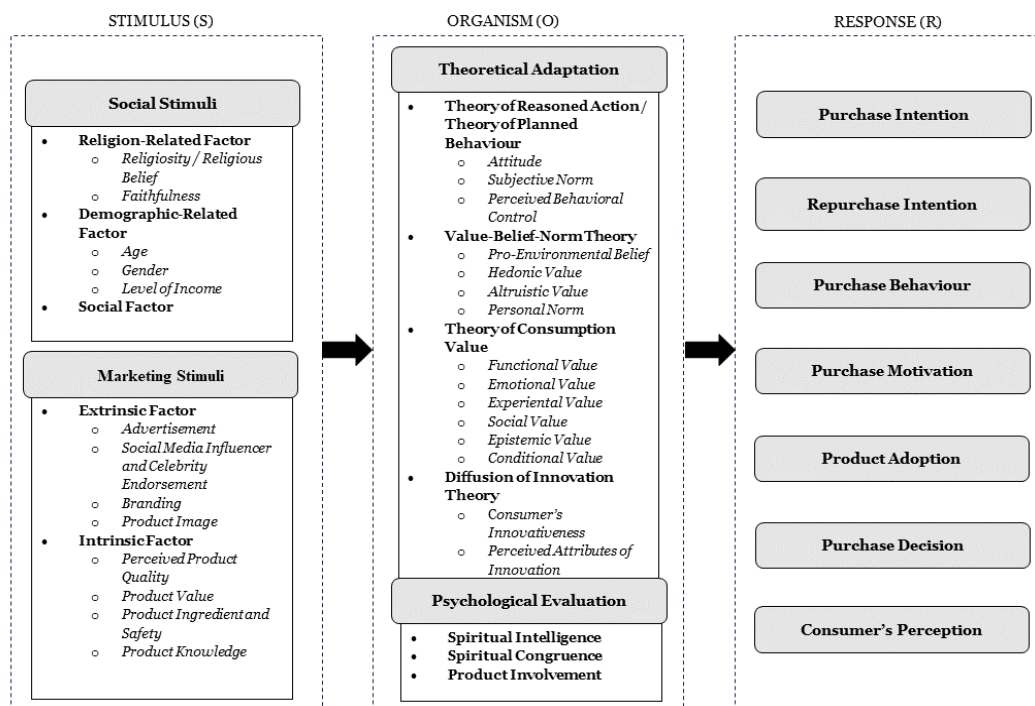
Social Media Marketing Theory	1
Theory of Customer Behaviour (Not Specified)	1
Not mentioned	8

\*Highest number of studies involved in each parameter or characteristic.

product knowledge) (n=16). These stimuli serve as triggers for establishing the consumer's internal evaluation and belief, known as the organism, which mediates the relationship between stimulus and response. The primary organisms involved were theoretical adaptation (n=65), which included the Theory of Reasoned Action and Theory of Planned Behaviour (n=24), the Value-Belief-Norm (n=23), the Theory of Consumption Value (n=15), the Diffusion of Innovation Theory (n=2), and unspecified theoretical adaptations (n=1), followed by psychological evaluation (n=3).

These theories were developed to predict consumer purchase behaviour based on the consumer's beliefs, internal evaluations, and external evaluations. For instance, the Theory of Planned Behaviour includes attitude, subjective norm, and perceived behavioural control, which together determine consumer purchasing behaviour. Additionally, four studies reported that attitude was found

to be the most influential predictor (n=4) and served as a potential mediator in developing positive cosmetic product purchase intentions. These stimuli and organisms facilitate the development of responses, or consumer purchase behaviours. Purchase behaviour was translated into several responses, with the majority of studies predominantly investigating purchase intention (n=19) as the response. This was followed by purchase behaviour (n=11), repurchase intention (n=5), purchase decision (n=2), purchase adoption (n=2), consumer perception (n=2), and purchase motivation (n=1). The term "purchase intention" was the most commonly studied because it measures the likelihood and intention of a customer to buy a product. The summary of determinant factors in cosmetic product purchasing is presented in **Table 2** and illustrated in **Figure 3**. All retrieved articles detailing study characteristics and main findings are presented in **Table 3**.



**Figure 3**  
Summary of determinant factors via SOR model framework application.

**Table 2** Summary of determinant factors in cosmetic product purchasing.

Determinant Factors	Factor mentioned in study (n)
<b>STIMULI: Social Stimuli</b>	
Religion-related factor (religiosity, religious belief, faithfulness)	9
Demographic-related factor (age, gender, income level)	6
Social factor (not specified)	1
<b>Total</b>	<b>16</b>
<b>STIMULI: Marketing Stimuli</b>	
<b>Extrinsic Factor</b>	
Advertisement (advertising, usefulness and feature of ads and blog, exposure to information, perceived credibility blog, sponsored ads, Islamic promotional ethics, social media marketing, promotional influence, eWOM, perceived CEO's image)	17
Social Media Influencer/Celebrity Endorsement (attractiveness, familiarity, trustworthiness, influence, expertise, perceived authenticity, parasocial relationship, communication)	11
Branding (brand awareness, brand consciousness, brand name, brand image)	11
Product Image (product availability, price, labelling and packaging, halal-related factors: awareness/logo & certification/ /perception/ knowledge)	19
<b>Intrinsic Factor</b>	
Perceived product quality	3

Product value (product positioning, product attributes, perceived product characteristic)	4
Product ingredient and safety (ingredient safety, safety value, perceived safety, product suitability)	6
Product knowledge	3
<b>Total</b>	<b>74</b>

#### **ORGANISM: Theoretical Adaptation**

Theory of Reasoned Action/Theory of Planned Behaviour (attitude, subjective norms, perceived behavioural control)	24
Value-Belief-Norm Theory (pro-environmental belief, hedonic value, altruistic value, personal norm)	23
Theory of Consumption Value (functional value, emotional value, experimental value, social value, epistemic value, conditional value)	15
Diffusion of Innovation Theory (consumer innovativeness, perceived attributes of innovation)	2

#### **ORGANISM: Psychological Evaluation**

Spiritual Intelligence	1
Spiritual Congruence	1
Product Involvement	1
<b>Total</b>	<b>67</b>

#### **RESPONSE: Consumer's Behaviour**

Purchase Intention	19
Repurchase Intention	5
Purchase Behaviour	11
Purchase Motivation	1
Product Adoption	2
Purchase Decision	2
Consumer's Perception	2
<b>Total</b>	<b>42</b>

**Table 3.** Summary of the retrieved articles from electronic databases

No	Authors (Year of Publication)	Study Design	Study Setting	Study Objective	Factors and Theory Involved	Finding
1	Hussin SR et al. (2013)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Online and In- person <b>Respondents:</b> 200	To evaluate the relationship between factors involved with moderating effect (labelling with advertising) towards halal cosmetic purchase intention.	1. Brand [S] 2. Price [S] 3. Quality [S] 4. Ingredients [S] 5. Labelling [S] 6. Advertising (Mediator) [S]  <b>Theory:</b> Economic Signalling Theory	1. All five factors showed a significant relationship towards halal cosmetics purchase intention. 2. Advertising was found to mediate only for price- purchase intention relationship.
2	Hashim AJ, Musa R (2014)	Qualitative Study (Interview)	<b>Location:</b> Klang Valley, Malaysia <b>Setting:</b> In-person interview <b>Respondents:</b> 20	To evaluate the relationships between factors involved towards halal cosmetic purchasing.	1. Content/Ingredient* 2. Product Suitability 3. Halal 4. Price  <b>Theory:</b> Not Mentioned	1. The level of awareness towards halal cosmetics is still low 2. Halal is not the main factor in choosing cosmetic products. 3. Content/ingredient was ranked to be the most important factor followed by product suitability, halal and price for both user and non-user halal cosmetics.
3	Rahman AA, Asrarhaghighi E, Rahman SA (2015)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Not specified <b>Respondents:</b> 110	To assess the relationship between the factors involved and the difference between consumer's attitudes towards Halal cosmetics and Halal food products.	1. Knowledge [NS] 2. Religiosity [S] 3. Attitude [S]  <b>Theory:</b> Theory of Reasoned Action (TRA)	1. Attitude and religiosity showed a significant relationship towards halal cosmetics product purchase intention. 2. Malaysian consumers showed more significant positive attitudes and purchase

						intentions towards Halal food products than towards Halal cosmetic products.
4	Mohezar S, Zailani S, Zainuddin Z (2016)	Quantitative Study (Survey)	<b>Location:</b> Kuala Lumpur, Malaysia <b>Setting:</b> Supermarket <b>Respondents:</b> 238	To investigate the relationship between the factors towards young adult Muslim consumer's attitude towards halal cosmetic adoption.	<ol style="list-style-type: none"> <li>1. Perceived Product Characteristic [S]</li> <li>2. Social Influence [S]</li> <li>3. Consumer Innovativeness [S]</li> <li>4. Religiosity (Moderator) [S]</li> </ol> <p><b>Theory:</b> Diffusion of Innovation (DOI) Theory</p>	<ol style="list-style-type: none"> <li>1. All factors showed a significant relationship towards halal cosmetics product adoption with religiosity as a moderator for each factor.</li> </ol>
5	Yeo BL, Mohamed RH, Muda M (2016)	Qualitative Study (Conceptual Review Paper)	<b>Location:</b> Extensive literature review from previous studies (Content Analysis Approach) <b>Setting:</b> Electronic Database <b>Retrieved articles:</b> Not mentioned.	To assess the relationships between factors involved towards halal cosmetics product purchasing by expanding the Theory of Consumption Value (TCV). This paper proposes brand value as a new value dimension to the original framework.	<ol style="list-style-type: none"> <li>1. Functional Value</li> <li>2. Social Value</li> <li>3. Emotional Value</li> <li>4. Epistemic Value</li> <li>5. Conditional Value</li> <li>6. Perceived Value</li> <li>7. Customer Satisfaction</li> <li>8. Brand Value (Brand Image)</li> </ol> <p><b>Theory:</b> Theory of Consumption Value (TCV)</p>	<ol style="list-style-type: none"> <li>1. Positive perceived value develops positive customer satisfaction and leads to customer retention.</li> <li>2. The proposed brand value (brand image) is posited to have a relationship between perceived value and customer satisfaction.</li> </ol>
6	Jihan A, Musa R, Hassan F (2016)	Quantitative Study (Survey)	<b>Location:</b> Klang Valley, Malaysia <b>Setting:</b> In-person survey <b>Respondents:</b> 470	To assess and validate the relationships between factors involved towards Halal skin care product purchase intention and continuation.	<ol style="list-style-type: none"> <li>1. Spiritual Intelligence (SQ)</li> <li>2. Spiritual Congruence (SC)</li> <li>3. Product Image (PI)</li> <li>4. Product Involvement (PV)</li> </ol> <p><b>Theory:</b> Self-Congruity Theory (SCT)</p>	<ol style="list-style-type: none"> <li>1. The results confirmed a 4-factor structure as conceptualized (SQ, SC, PI, PV) for the underlying factors to predict consumer's attitudes towards Halal skin care product purchase intention and continuation.</li> </ol>

7	Ghazali E et al. (2017)	Quantitative Study (Survey)	<p><b>Location:</b> Malaysia (<i>Location not specified</i>)</p> <p><b>Setting:</b> Organic shops, events and members from Malaysian organic-related organizations</p> <p><b>Respondents:</b> 317</p>	To investigate the relationships between factors related to consumer's perceived value (CPV) involved towards re-purchase intentions of organic personal care product (PCP).	<ol style="list-style-type: none"> <li>1. CPV (Health Value) [S]</li> <li>2. CPV (Safety Value) [S]</li> <li>3. CPV (Social Value) [NS]</li> <li>4. CPV (Hedonic Value) [S]</li> <li>5. CPV (Environmental Value) [S]</li> <li>6. Product Knowledge [S]</li> <li>7. Attitude [S]*</li> <li>8. Subjective Norms [NS]</li> <li>9. Perceived Behavioural Control [S]</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TBP)</p>	<ol style="list-style-type: none"> <li>1. All factors (except social value and subjective norms) showed a significant relationship with attitude towards the repurchasing of organic PCP.</li> <li>2. Attitude is a strong predictor for the repurchase intention of organic PCP.</li> <li>3. Better product knowledge about organic PCP would lead to more positive attitudes toward re-purchasing the product.</li> </ol>
8	Anuar MI et al. (2017)	Quantitative Study (Survey)	<p><b>Location:</b> Kuala Lumpur, Malaysia</p> <p><b>Setting:</b> Not specified</p> <p><b>Respondents:</b> 200</p>	To assess the relationships between factors involved towards purchase intention of metrosexuals towards men's facial care products.	<ol style="list-style-type: none"> <li>1. Price Consciousness [S]</li> <li>2. Attitude [S]*</li> </ol> <p><b>Theory:</b> Not Mentioned</p>	<ol style="list-style-type: none"> <li>1. Price consciousness and attitude showed positive relationship towards purchase intention for men's facial care products with attitude to be the strongest predictor.</li> </ol>
9	Mohammad N, Baharun R. (2017)	Quantitative Study (Survey)	<p><b>Location:</b> Klang Valley, Malaysia</p> <p><b>Setting:</b> Mall</p> <p><b>Respondents:</b> 350</p>	To assess the relationships between factors involved towards consumer purchase intention for halal cosmetic adoption organic personal care products.	<ol style="list-style-type: none"> <li>1. Perceived Quality [NS]</li> <li>2. Perceived Safety [S]</li> </ol> <p><b>Theory:</b> Not Mentioned</p>	<ol style="list-style-type: none"> <li>1. Perceived Safety showed significant relationship on organic personal care product purchase intention as opposed to perceived quality.</li> </ol>
10	Ahmad SN, Omar A (2018)	Quantitative Study (Survey)	<p><b>Location:</b> Malaysia (<i>Location not specified</i>)</p> <p><b>Setting:</b> Not specified</p> <p><b>Respondents:</b> 226</p>	To investigate consumers' perspectives and the relationships between factors involved towards	<p><b>Perceived Value-</b></p> <ol style="list-style-type: none"> <li>1. Functional Value [S]*</li> <li>2. Experiential Value [NS]</li> <li>3. Symbolic Value [NS]</li> </ol>	<ol style="list-style-type: none"> <li>1. Only functional value, environment and health consciousness showed a significant positive relationship</li> </ol>

			natural beauty product repurchasing.	<p><b>Personal Value-</b></p> <ol style="list-style-type: none"> <li>1. Health Consciousness [S]</li> <li>2. Environment Consciousness [S]</li> <li>3. Appearance Consciousness [NS]</li> </ol> <p><b>Theory:</b> Theory of Consumption Value (TCV)</p>	<p>towards organic beauty product purchase intention.</p> <ol style="list-style-type: none"> <li>2. Functional value was ranked to be the strongest predictor followed by environment and health consciousness.</li> </ol>	
11	Haque A et al. (2018)	Quantitative Study (Survey)	<p><b>Location:</b> Kuala Lumpur, Johor, and Penang, Malaysia <b>Setting:</b> Online <b>Respondents:</b> 232</p>	<p>To investigate the relationships between factors involved towards halal cosmetic product consumer purchase behaviour among Muslim consumers.</p>	<ol style="list-style-type: none"> <li>1. Purchase Intention [S]</li> <li>2. Attitude [S]</li> <li>3. Subjective Norm [NS]</li> <li>4. Perceived Behavioural Control [S]</li> <li>5. Religiosity [S]</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TPB)</p>	<ol style="list-style-type: none"> <li>1. Only three factors (Attitude, perceived behavioural control, and religiosity) had significant relationships with Purchase intention.</li> <li>2. Purchase intention showed significant positive relationship towards purchase behaviour.</li> </ol>
12	Ali Q et al. (2019)	Quantitative Study (Survey)	<p><b>Location:</b> Kuala Lumpur, Malaysia <b>Setting:</b> Mall &amp; Online <b>Respondents:</b> 275</p>	<p>To evaluate the relationships between factors involved towards halal cosmetic adoption.</p>	<ol style="list-style-type: none"> <li>1. Halal Cosmetic Awareness and Understanding (AU) [S]</li> <li>2. Perceived Attributes of Innovation (PAI) [S]</li> <li>3. Financial Cost (FC) [S]</li> <li>4. Social Influence (SI) [S]</li> <li>5. Religiosity (Moderator) [S]</li> </ol> <p><b>Theory:</b> Diffusion of Innovation (DOI) Theory</p>	<ol style="list-style-type: none"> <li>1. All factors (AU, PAI, FC and SI) showed significant positive relationship towards halal cosmetic adoption.</li> <li>2. Religiosity showed significant and positive moderating effect on each factor towards halal cosmetic adoption.</li> </ol>
13	Hafiz KA, Ali KA (2019)	Quantitative Study (Survey)	<p><b>Location:</b> Klang Valley, Malaysia <b>Setting:</b> Malls</p>	<p>To evaluate the relationships between factors involved with</p>	<ol style="list-style-type: none"> <li>1. Product Attributes (PA) [S]</li> <li>2. Perceived Brand Image (PBI) [S]</li> </ol>	<ol style="list-style-type: none"> <li>1. All factors have significant positive influence on young consumer purchase decisions.</li> </ol>

**Respondents:** 475

mediating effect (perceived brand image (PBI), perceived CEO's image (CEO), and perceived quality (PQ)) towards halal cosmetic consumer purchase decision.

3. Perceived CEO Image (CEO)[S]
4. Perceived Quality (PQ) [S]

**Theory:** Stimuli-Organism-Response (SOR) Model

2. PA show significant relationship towards PBI, CEO and PQ.
3. There are no mediating effects from PBI, CEO and PQ for relationship between PA and the young consumers' purchase decision of makeups.

14 Ishak S et al. (2019)

Quantitative Study (Survey)

**Location:** Bangi, Selangor, Malaysia  
**Setting:** Higher Education Institute  
**Respondents:** 150

To assess the relationships between factors involved towards cosmetics product purchase behaviour of young, educated Muslim females in Malaysia.

1. Halal Perception [S]
2. Product Knowledge [S]
3. Advertisement [S]
4. Brand Name [S]

**Theory:** Not Mentioned

1. All factors showed significant relationship towards purchase decision with brand name to be the most significant factor.
2. Millennial Muslim cosmetic purchase behaviour categorize into the "Limited Decision Making" classification.
3. Young, educated female consumers prefer branded cosmetic items and willing to accept the higher prices for the branded items although they concerned for the halal products.

15 Jan MT et al. (2019)

Quantitative Study (Survey)

**Location:** Malaysia (*Location not specified*)  
**Setting:** Online  
**Respondents:** 428

To investigate the relationships between factors involved towards consumer buying behaviour for skincare products.

1. Usefulness of Ads [S]
2. Exposure to Information [NS]
3. Feature of Ads [S]

**Theory:** Not Mentioned

1. Only usefulness of advertisement and features of advertisement showed significant relationship towards consumer buying behaviour.
2. Feature of advertisement showed significant relationship towards usefulness of

advertisement.

16 Quoquab F, Mohammad J, Shahrin R (2019)	Mixed Study (Qualitative: Interview, Literature Review & Quantitative Study: Survey)	<p><b>Location:</b> Klang Valley, Malaysia  <b>Setting:</b> Online &amp; Mall  <b>Respondents:</b> 448</p> <p><b>Location:</b> Science Direct, Emerald, Sage, Elsevier, Taylor and Francis (Content Analysis Approach)  <b>Setting:</b> Electronic database  <b>Retrieved articles:</b> Not mentioned</p>	To develop a valid and reliable scale to measure pro-environmental behaviour in nutricosmetics purchase (PEB-NP).	<p><b>Pro-Environmental Behaviour (PEB) Dimensions</b></p> <ol style="list-style-type: none"> <li>Conservation Behaviour             <ol style="list-style-type: none"> <li>Recycle</li> <li>Reuse</li> </ol> </li> <li>Health Consciousness</li> <li>Environmental Aesthetics</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TPB) &amp; Theory of Reasoned Action (TRA)</p>	<ol style="list-style-type: none"> <li>PEB-NP is a hierarchical multi-dimensional construct that exhibits environmental aesthetics, conservation behaviour (reduce and recycle) and health consciousness.</li> <li>Pro-environmental behaviour showed positive relationship on happiness.</li> </ol>
17 Shahrin R et al. (2019)	Quantitative Study (Survey)	<p><b>Location:</b> Klang Valley, Malaysia  <b>Setting:</b> Malls  <b>Respondents:</b> 448</p>	To evaluate the relationships between factors involved with mediating effect (PER) towards consumer's pro-environmental belief (PEB) for nutricosmetic consumption.	<ol style="list-style-type: none"> <li>Compensatory Health Beliefs (CHBs) [S]</li> <li>Environmental Self-Identity (ESI) [S]</li> <li>Perceived Environmental Responsibility (PER) [S]</li> </ol> <p><b>Theory:</b> Social Cognitive Theory (SCT) And Social Identity Theory (SIT)</p>	<ol style="list-style-type: none"> <li>All factors showed significant positive relationship on consumers' PEB in nutricosmetics consumption</li> <li>CHB and ESI show positive and significant effect on PER.</li> <li>PER mediates the relationship between CHB, ESI and PEB.</li> </ol>
18 Khan N, Sarwar A, Tan BC (2020)	Quantitative Study (Survey)	<p><b>Location:</b> Malaysia (<i>Location not specified</i>)  <b>Setting:</b> Private Universities  <b>Respondents:</b> 262</p>	To investigate the relationship between factors involved and consumers' perspectives towards halal cosmetic	<ol style="list-style-type: none"> <li>Religious Belief [S]</li> <li>Ingredient Safety [S]*</li> <li>Halal Logo [S]*</li> <li>Promotional Influence [S]</li> </ol>	<ol style="list-style-type: none"> <li>All four factors showed a significant relationship towards consumer purchase intention among generation Y consumers in Malaysia.</li> </ol>



purchase intention.

**Theory:** Theory of Planned Behaviour (TBP)

2. Ingredient Safety was ranked as the most important factor followed by halal logo, promotional influence and religious belief in influencing purchase intention among young Muslim consumers.

19	Jaini A et al (2020a)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Online <b>Respondents:</b> 150	To investigate the relationship between factors involved with mediating effect (personal norm (PN) and pro-environmental belief (PEB)) towards cosmetic product green purchase behaviour (GPB).	<ol style="list-style-type: none"> <li>1. Hedonic Value [S]</li> <li>2. Altruistic Value [NS]</li> <li>3. Pro-Environmental Belief [S]</li> <li>4. Personal Norm [S]</li> </ol> <p><b>Theory:</b> Value-Belief-Norm (VBN) Theory</p>	<ol style="list-style-type: none"> <li>1. Hedonic value (HV) showed a significant relationship towards PEB as opposed to Altruistic value (AV).</li> <li>2. PEB showed significant positive relationship towards PN and subsequently towards GPB.</li> <li>3. PEB mediates HV-PN relationship while PN mediates PEB-GPB relationship.</li> </ol>
20	Jaini A et al. (2020b)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Online <b>Respondents:</b> 318	To evaluate the relationship between factors involved with mediating effect (electronic word-of-mouth (eWOM)) towards cosmetic product green purchase behaviour (GPB).	<ol style="list-style-type: none"> <li>1. Pro-Environmental Belief [S]</li> <li>2. Hedonic Value [S]</li> <li>3. Altruistic Value [S]</li> <li>4. Personal Norm [S]</li> <li>5. Electronic Words of Mouth (eWOM) (Moderator) [S]</li> </ol> <p><b>Theory:</b> Theory of Value-Belief-Norm (VBN) And Elaboration Likelihood Model (ELM)</p>	<ol style="list-style-type: none"> <li>1. AV and HV showed significant and positive relationship towards PEB and subsequently PN.</li> <li>2. PN showed significant and positive towards GPB.</li> <li>3. PEB mediates AV-PN and HV-PN relationship.</li> <li>4. PN mediates PEB-GPB relationship.</li> <li>5. eWOM moderates the PN-GPB relationship.</li> </ol>

21 Quoquab F, Jaini A, Mohammad J (2020)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Online <b>Respondents:</b> 240	To investigate the relationship between factors involved with moderating effect (gender) towards cosmetic product green purchase behaviour (GPB).	<ol style="list-style-type: none"> <li>1. Pro-Environmental Belief [S]</li> <li>2. Hedonic Value [S]</li> <li>3. Altruistic Value [S]</li> <li>4. Personal Norm [S]</li> <li>5. Gender (Moderator)[S]</li> </ol> <p><b>Theory:</b> Value-Belief-Norm (VBN)</p>	<ol style="list-style-type: none"> <li>1. AV and HV showed significant and positive relationship towards PEB and subsequently towards PN.</li> <li>2. Gender moderates the relationships between AV-PEB, PEB-PN, and PN-GPB.</li> </ol>
22 Khalid NR, Wei CA, Mokhtaruddin. (2020)	Quantitative Study (Survey)	<b>Location:</b> Klang Valley, Malaysia <b>Setting:</b> In-person <b>Respondents:</b> 359	To assess the relationships between factors involved with moderating effect (Product positioning) towards Halal cosmetic purchase intention.	<ol style="list-style-type: none"> <li>1. Attitude [S]</li> <li>2. Subjective Norm [S]</li> <li>3. Positioning [S]</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TPB) &amp; Theory of Reasoned Action (TRA)</p>	<ol style="list-style-type: none"> <li>1. All factors showed significant relationships towards purchase intention for cosmetic products.</li> <li>2. Product positioning showed a significant role as moderator in assessing the influence of attitude on consumer purchase intention.</li> </ol>
23 Mamun AA et al. (2020)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Online <b>Respondents:</b> 300	To evaluate the relationships between factors involved towards consumer purchase intention for green skincare products.	<ol style="list-style-type: none"> <li>1. Environmental Concern (EC) [S]</li> <li>2. Attitude (ATT) [S]</li> <li>3. Subjective Norms [NS]</li> <li>4. Perceived Behavioural Control [NS]</li> <li>5. Availability of Green Skincare Products [S]</li> <li>6. Purchase Intention [S]</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TPB)</p>	<ol style="list-style-type: none"> <li>1. Only EC and ATT showed significant relationship towards purchase intention of green skincare products.</li> <li>2. Purchase intention showed significant relationship on the green skincare products purchase.</li> <li>3. Purchase intention mediated the effect of EC and ATT on the purchase of green skincare products.</li> </ol>

24	Nghah AH et al. (2021a)	Quantitative Study (Survey)	<b>Location:</b> Malaysia <i>(Location not specified)</i> <b>Setting:</b> Three universities offering Islamic studies program <b>Respondents:</b> 501	To assess the relationship between factors involved with moderating effect (gender) towards halal cosmetic purchase intention among Muslim consumers.	<ol style="list-style-type: none"> <li>1. Attitude [S]*</li> <li>2. Subjective Norms [S]</li> <li>3. Perceived Behavioural Control [S]</li> <li>4. Brand Image [S]</li> <li>5. Gender [NS]</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TBP)</p>	<ol style="list-style-type: none"> <li>1. All factors (except gender) showed a significant relationship towards halal cosmetics purchase intention for the overall dataset (male and female)</li> <li>2. All four factors' effect towards purchase intention differ between female and male consumers.</li> </ol>
25	Nghah Ah et al. (2021b)	Quantitative Study (Survey)	<b>Location:</b> Selangor, Kuala Lumpur, East Coast Malaysia <b>Setting:</b> University <b>Respondents:</b> 578	To evaluate the relationship between factors involved towards the continuance of use intention (CoU) for non-halal certified cosmetics consumption among Muslim university students in Malaysia.	<ol style="list-style-type: none"> <li>1. Celebrity Endorsement (Ce) [S]</li> <li>2. Attitude (ATT) [S]</li> <li>3. Brand Image (BI) [S]</li> <li>4. Religion (Moderator) [S]</li> </ol> <p><b>Theory:</b> Stimuli-Organism-Response (SOR) Model</p>	<ol style="list-style-type: none"> <li>1. CE showed significant influences towards ATT and BI.</li> <li>2. BI showed significant influences towards ATT.</li> <li>3. BI and ATT showed significant influence CoU.</li> <li>4. Both ATT and BI mediate relationship between CE and CoU</li> <li>5. High religiosity (moderator) will weaken relationship between attitude and CoU.</li> </ol>
26	Jalil MI et al. (2021)	Quantitative Study (Survey)	<b>Location:</b> Malaysia <i>(Location not specified)</i> <b>Setting:</b> Online <b>Respondents:</b> 60	To evaluate the relationships between factors involved towards halal cosmetic repurchase intention among consumers in Malaysia.	<ol style="list-style-type: none"> <li>1. Social Media Marketing (SMM)* [S]</li> <li>2. Brand Awareness (BA) [S]</li> <li>3. Electronic Words-Of-Mouth (eWOM) [NS]</li> </ol> <p><b>Theory:</b> Theory of Reasoned Action (TRA) &amp; Theory of Social Media Marketing</p>	<ol style="list-style-type: none"> <li>1. SMM showed significant relationship towards on repurchase intention, BA, and eWOM</li> <li>2. SMM influence stronger on BA, followed by repurchase intention and eWOM.</li> <li>3. BA showed significant influence on repurchase</li> </ol>

intention as opposed to eWOM.

27	Osman S, Cheng KW, Wider W (2022)	Quantitative Study (Survey)	<b>Location:</b> Klang Valley, Malaysia <b>Setting:</b> Mall <b>Respondents:</b> 389	To assess the relationships between factors involved towards halal cosmetics purchasing behaviour.	1. Halal Awareness [S] 2. Halal Knowledge [S] 3. Attitude [S]*  <b>Theory:</b> Not Mentioned	1. All three factors showed a significant relationship towards halal cosmetics purchasing behaviour.
28	Abdullah SI, Ali SF, Teng PK (2022)	Quantitative Study (Survey)	<b>Location:</b> Klang Valley, Malaysia <b>Setting:</b> Mall <b>Respondents:</b> 240	To assess the relationships between factors involved towards consumers' attitudes and purchase intention of luxury cosmetic brands among urban women in Malaysia.	1. Social Media Influencer (SMI) Attractiveness [S] 2. SMI Trustworthiness [S] 3. Attitude [S]  <b>Theory:</b> Social Influence Theory (Sit)	1. Both SMI's attractiveness and trustworthiness showed a significant relationship towards consumer attitude. 2. SMI attractiveness has stronger effect compared to trustworthiness. 3. Consumer attitude shows significant positive relationship towards purchase intention. 4. Consumer attitude mediates the relationship between SMI's attractiveness and luxury cosmetic brands' purchase intention.
29	Ariffin SK, Lee TM, Mohsin AM (2022)	Quantitative Study (Survey)	<b>Location:</b> Malaysia ( <i>Location not specified</i> ) <b>Setting:</b> Online & In-person <b>Respondents:</b> 338	To evaluate the relationships between factors involved towards positive and negative appeals in mobile advertising of cosmetics products and cosmetic product purchase intention.	<b>Positive Emotion</b> 1. Happiness [S] 2. Contentment [S] 3. Pride [NS] <b>Negative Emotion</b> 1. Sadness [S] 2. Fear [S] 3. Shame [NS] <b>Mobile Advertising</b>	1. Positive emotion (Happiness and contentment) positively influence consumer attitude towards positive appeals of mobile advertising of cosmetic products. 2. Negative emotions (sadness and fear) have significant negative effects on attitudes

				<p><b>Appealing</b></p> <ol style="list-style-type: none"> <li>1. Positive [S]</li> <li>2. Negative [S]</li> </ol> <p><b>Theory:</b> Not Mentioned</p>	<p>towards the negative appeal of mobile advertising.</p> <ol style="list-style-type: none"> <li>3. Consumers develop positive attitudes towards positive appeals of mobile advertising which will significantly influence purchase intention towards cosmetic products and vice versa.</li> </ol>
30.	Cheng WH et al. (2022)	Quantitative Study (Survey)	<p><b>Location:</b> Penang, Malaysia</p> <p><b>Setting:</b> Malls</p> <p><b>Respondents:</b> 175</p>	<p>To investigate the relationships between factors involved under the influence of beauty blogs towards consumer purchase intention of beauty and cosmetic products in Malaysia.</p> <ol style="list-style-type: none"> <li>1. Advertising Intent</li> <li>2. Experience Goods</li> <li>3. Brand Awareness</li> <li>4. Perceived Credibility</li> <li>5. Perceived Usefulness</li> <li>6. Attitude Towards Sponsored Recommendation Post (Mediator)</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TBP) &amp; Theory of Reasoned Action (TRA)</p>	<ol style="list-style-type: none"> <li>1. The results showed that advertising intent, brand awareness, perceived credibility, and perceived usefulness are related to purchase intention.</li> <li>2. Attitude towards sponsored recommended posts mediates the relationships between all the psychological antecedents and purchase intention, except experience goods.</li> </ol>
31	Fauzi MA (2022)	Qualitative Study (Systematic Literature Review)	<p><b>Database:</b> Web of Science and Scopus</p> <p><b>Setting:</b> Electronic database</p> <p><b>Retrieved Articles:</b> 35</p>	<p>To assess relevant studies concerning halal-certified products purchase.</p> <ol style="list-style-type: none"> <li>1. Halal</li> <li>2. Religiosity</li> <li>3. Theory Adaptation</li> </ol> <p><b>Theory:</b> Theory of Planned Behaviour (TBP) &amp; Theory of Reasoned Action (TRA)</p>	<ol style="list-style-type: none"> <li>1. Malaysia is the leading halal purchasing behaviour (11 articles).</li> <li>2. Only five articles found mentioning halal cosmetic product.</li> <li>3. Two articles involve TRA, one article involve TBP while only one involve Expectancy-value theory (EVT) and one article</li> </ol>

did not include theory.

32 Zaidi FLA, Jamaludin MA, Tukiran NA (2022)	Qualitative Study (Review Paper)	<p><b>Location:</b> Extensive literature review from previous studies (Content Analysis Approach)</p> <p><b>Setting:</b> Electronic database</p> <p><b>Retrieved articles:</b> Not mentioned</p>	To evaluate the relationships between factors involved towards Muslim consumers' perception of counterfeit cosmetic products.	<ol style="list-style-type: none"> <li>1. Religiosity</li> <li>2. Brand Consciousness</li> <li>3. Demographic Background</li> </ol> <p><b>Theory:</b> Not Mentioned</p>	<ol style="list-style-type: none"> <li>1. Muslim consumer's awareness on the importance of halalan tayyiban in cosmetic product are relatively low</li> <li>2. Demographic background (education, age, level of income and education) and brand consciousness may influence consumer's perception on counterfeit products.</li> <li>3. The influence of religiosity and halal knowledge towards perception of counterfeit may depend on individual Muslim consumers' levels of faith.</li> <li>4. Consumers who have higher brand consciousness on counterfeit cosmetic products are least likely to purchase counterfeit cosmetic products.</li> </ol>
33 Aw YC (2022)	Quantitative Study (Survey)	<p><b>Location:</b> Malaysia (<i>Location not specified</i>)</p> <p><b>Setting:</b> Online</p> <p><b>Respondents:</b> 257</p>	To investigate the relationships between factors involved towards consumer purchase intention for Korean skin care products.	<ol style="list-style-type: none"> <li>1. Price Consciousness [NS]</li> <li>2. Brand Image [S]</li> <li>3. Celebrity Endorsement [NS]</li> </ol> <p><b>Theory:</b> Theory of Reasoned Action (TRA)</p>	<ol style="list-style-type: none"> <li>1. Brand image showed significant positive influence on Korean skincare purchase intention among Malaysian female Gen Y.</li> </ol>

34	Septiarini DF et al. (2022)	Quantitative Study (Survey)	<p><b>Location:</b> Singapore, Indonesia, Malaysia (<i>Location not specified</i>)</p> <p><b>Setting:</b> Online &amp; In-person</p> <p><b>Respondents:</b> Total: 400 (Malaysia: 99)</p>	<p>To assess the relationships between factors involved towards consumer attitude and behavioural intention for Korean skin care products among non-Muslim consumers.</p>	<ol style="list-style-type: none"> <li>1. Halal Logo [S]</li> <li>2. Halal Brand Image [S]</li> <li>3. Halal Awareness [S]</li> <li>4. Attitude [S]</li> </ol> <p><b>Theory:</b> Theory of Customer Behaviour</p>	<ol style="list-style-type: none"> <li>1. All factors have significant effect on non-Muslim consumers' attitudes and behavioural intentions.</li> <li>2. Safety, comfort and cleanliness of product ingredients should be provided to halal products to attract non-Muslim consumers.</li> <li>3. Attitude shown significant effect on behavioural intention.</li> <li>4. The buying behaviour of non-Muslims in Malaysia depends on the ethical quality of the overall information content or credibility of the label.</li> <li>5. Malaysian consumers are more price sensitive, loyal consumers, receptive to product innovation and consider shopping as recreation than Indonesian consumers.</li> <li>6. Malaysian consumers prefer well-known brand and best quality products.</li> <li>7. Malaysian consumers tend to be impulsive consumers.</li> </ol>
35	Taher SS et al. (2022)	Quantitative Study (Survey)	<p><b>Location:</b> Malaysia (<i>Location not specified</i>)</p> <p><b>Setting:</b> Online</p> <p><b>Respondents:</b> 190</p>	<p>To investigate the relationships between factors involved with mediating effect (Parasocial relationship) towards consumer</p>	<ol style="list-style-type: none"> <li>1. Social Media Influencers (SMIs) Communication Skills [S]</li> <li>2. SMIs' Influence [NS]</li> <li>3. SMIs' Perceived Authenticity [NS]</li> </ol>	<ol style="list-style-type: none"> <li>1. SMIs' communication skills and expertise showed significant relationship on parasocial relationships.</li> <li>2. The parasocial relationship showed significant relationship</li> </ol>

				purchase intention for beauty products.	4. SMIs' Expertise [S] 5. Parasocial Relationship [S]	3. Parasocial relationship was found to mediate the relationship between the expertise of social media influencers and purchase intention.
36	Isa RM et al. (2023)	Qualitative Study (Systematic Literature Review)	<b>Location:</b> Web of Science and Scopus <b>Setting:</b> Electronic Database <b>Retrieved Articles:</b> 14	To assess the halal cosmetic concept and the relationship between factors involved towards halal cosmetic purchasing.	1. Marketing Stimuli (Product, Price, Promotion and Place-Related Factors) 2. Other Stimuli (Social Factors, Religion-Related Factors and Characteristic-Related Factors)	1. 14 Articles related to halal cosmetic product purchasing were included. 2. Religiosity and product factors (ingredients, halal logo and halal certification) showed the strongest motivators in halal cosmetics product purchasing. 3. The factors were categorized into Marketing stimuli and other stimuli using SOR Theory.
37	Masood A, Hati SR, Rahim AA (2023)	Qualitative Study (Systematic Literature Review)	<b>Location:</b> Web of Science, Scopus, Google Scholar, ScienceDirect and Springer Link <b>Setting:</b> Electronic Database <b>Retrieved Articles:</b> 31	To identify existing factors from past studies towards consumer purchase behaviour.	<b>Marketing Elements</b> 1. Price, Place, Promotion, Social Media/Celebrity, Halal Brand, Brand Loyalty and Brand Innovation <b>Ethics</b> 1. Manufacturer/Producer, Islamic Marketing <b>Consumer Behaviour</b> 1. Purchase Behaviour, Purchase Intention, Customer's	1. Almost all business and management research were conducted in Malaysia and Indonesia. 2. Cosmetic market in Malaysia is dominated by large international companies. 3. The most influential factors were product quality, halal certification, ease of purchase, and price. 4. Malaysian Muslims' intentions



				Experience/Satisfaction, Perceived Value, Religiosity, Awareness /Knowledge, Attitude)		and attitudes toward halal cosmetics are affected by their degree of devoutness.
				<b>Governance</b>		
				1. Halal Certification, Supply Chain/Integrity, Governing Authority		5. The majority of Malaysians, regardless of religion, held positive perceptions and attitudes toward natural and halal cosmetic products.
						6. Malaysia's cosmetic manufacturers are aware of the halal certification process and are competent in obtaining halal certification.
				<b>Theory:</b> Theory of Planned Behaviour (TBP) & Theory of Reasoned Action (TRA)		
38	Zaidi FL, Jamaludin MA, Tukiran NA (2023)	Mixed Study (Qualitative: Literature Review & Quantitative Study: Survey)	<b>Location:</b> Putrajaya, Malaysia <b>Setting:</b> In-person <b>Respondents:</b> 277 <b>Location:</b> Extensive literature review from previous studies (Content Analysis Approach) <b>Setting:</b> Electronic database <b>Retrieved articles:</b> Not mentioned	To assess the relationships between factors involved towards consumer's perception of counterfeit cosmetic products among Muslim consumers in Putrajaya.	1. Demographic Background a. Age [S] b. Gender [NS] c. Income Level [S] 2. Religiosity [NS] 3. Brand Consciousness [S] <b>Theory:</b> Theory of Planned Behaviour (TBP)	1. Age, level of income, and brand consciousness showed significant relationship on Muslims consumers' perception in Putrajaya towards counterfeit cosmetics. 2. Muslim consumers in Putrajaya are very much aware of the existence of counterfeit cosmetic products in the local market and even have used the products.

\*Strongest predictor, [S]: Significant, [NS]: Non-significant

## Discussion

The current study evaluated the determinant factors and theoretical framework underpinning cosmetic product purchasing in Malaysia based on previously reported research articles. Notably, the majority of the studies employed a quantitative study design, utilizing self-administered questionnaires via convenience sampling to recruit a large number of respondents from the Malaysian population. Additionally, most of the studies were conducted in Klang Valley, Malaysia. Klang Valley is a densely populated region in Malaysia, boasting a large consumer base with easy access to cosmetic products [71]. Moreover, the predominant focus of these investigations was on young Malaysian adults, specifically Generation Y, as they are recognized as a pivotal market segment due to their potential as the largest targeted consumer demographic and their significance in sustaining customer retention. This is further supported by previous studies, which described the younger generation as exhibiting greater spending power, impulsive buying behaviour, materialism, and interest in fashion, trends, and shopping [3,14].

In this study, the SOR model was used to classify determinant factors, revealing that various potential stimuli could trigger the consumer's cognitive and emotional evaluation (organism) and subsequently lead to the development of the consumer's purchasing behaviour (response). The application of the SOR model contributes to a global understanding of consumer behaviour theories and highlights its universal applicability. Marketing stimuli, which comprised extrinsic and intrinsic factors, were found to be the most studied among the included articles. Exposure to information and product knowledge acquisition are initial steps in influencing the consumer's internal and external evaluation. Hence, information pertaining to the product from marketing cues is required to drive the consumer's assessment and motivation to purchase the product. Utilizing effective

advertising platforms and technologies will help ease the consumer's product evaluation and reduce selection risks while establishing brand consciousness simultaneously. Consequently, exposure to information will facilitate the consumer's perception, awareness, familiarity, and understanding of brand products. Jan et al. (2019) concurred that consumers will only plan to behave positively towards a product if they are properly informed about it, thus signifying the importance of exposure to information [45]. The significant role of digital marketing and social media in influencing consumer purchasing decisions, as observed in Malaysia, reflects a global shift towards digitalization in consumer engagement strategies.

Additionally, advertising and celebrity endorsement are key in developing a positive brand image and product familiarity, subsequently enhancing brand loyalty once people are exposed to the product information. Consumers tend to develop brand trust and form a positive perception of the product as they prefer familiar brands to mitigate purchasing risks, provided the products meet their expectations [72]. Product image, such as packaging, ingredients, and price, also potentially influences positive purchase intentions. The inclusion of brand name, packaging design, halal logo, and product ingredients in labelling and packaging enhances the branding process by establishing a unique brand identity and aiding consumers in assessing product benefits and risks. The credibility of the product can be further strengthened through clinical testing and rigorous safety and efficacy tests, ensuring consumer protection [73]. This is important as consumers are knowledgeable and have risk-averse tendencies [10].

Price also plays an important role in influencing consumer purchase behaviour since Malaysian consumers are price sensitive [67]. Nonetheless, the study by Rani and Krishnan [2018] on male and female Malay students aged 18 and above around Klang Valley reported otherwise, indicating that

young Malaysian consumers were willing to spend more for halal, safer, branded, and high-quality products, even if they were expensive [74]. Moreover, a low product price was reported to suggest product quality inferiority and lack of value [75]. Additionally, there is a belief that branded cosmetic products with higher prices are of better quality [76]. These stimuli will subsequently trigger and develop one's evaluation, knowledge, value, and belief, known as the organism in the SOR model. Similarly, factors such as price, quality, and advertising identified in Malaysia have also been observed in emerging markets like France and the United States, with additional factors including prior learning, historical, and traditional factors influencing consumer purchase behaviour [77].

The present study observed that theoretical adaptations are used in the research articles to predict consumer purchase behaviour, as they provide insights into how individuals' values, perceptions, and beliefs influence their purchase decisions. In addition, the Theory of Reasoned Action and the Theory of Planned Behaviour were mostly used as the study framework to explain and predict the initial intention of behavioural development [78]. Both theories are interrelated, with Theory of Planned Behaviour being an extension of Theory of Reasoned Action that integrates perceived behavioural control as an additional predictor alongside attitudes and subjective norms to enhance the model's predictive power [79]. Notably, attitude was found to be the most influential predictor in developing positive cosmetic product purchase intention. Similarly, past studies have shown a strong positive relationship between attitudes and willingness to buy cosmetic products [3, 80, 81]. Consumers with a positive attitude are more likely to make an actual purchase as opposed to those with a negative attitude. Attitude development depends on the factors or stimuli that influence it, including the consumer's personal evaluation and knowl-

edge of the product's merits, value, and benefits.

Diverse approaches have been employed in evaluating consumer purchasing behaviour towards cosmetic products, with a prevailing focus on the assessment of purchase intention as the primary indicator of actual purchase behaviour. Purchase intention plays an important role as a key metric in assessing consumer interest and preference. Purchase intention reflects the consumer's willingness to purchase a product and is measured by the likelihood of actual product acquisition based on their personal evaluations and attitudes towards the product [82]. Previous studies have assessed the importance of purchase intention in predicting consumer purchase behaviour and revealed a positive relationship between purchase intention and consumer purchase behaviour [83-85]. Schiffman and Kanuk [86] added that purchase intention greatly drives the desire to purchase the product.

The current study has several limitations. Firstly, the study focused solely on assessing predictors influencing consumer purchase behaviour within the cosmetic product context in Malaysia. Therefore, it did not cover influencing factors related to other products and regions. Consequently, the factors identified in the study might influence purchasing behaviour differently between consumers from diverse social, regional, and cultural backgrounds. Furthermore, research article identification and searching were limited to English-language publications in selected electronic databases, namely Web of Science (WOS), Scopus, and ScienceDirect, published between 2013 and 2023. Future studies could assess varying sociodemographic factors and cross-country comparisons in predicting consumer purchase behaviour. Additionally, conducting longitudinal studies could provide valuable insights into monitoring changes in consumer preferences and trends over time.

## Conclusion

This study helps illuminate the multifaceted nature of consumer behaviour in the cosmetic industry, encompassing social and marketing factors that trigger consumer beliefs, values, and perceptions, ultimately influencing their purchase behaviour. Additionally, the findings from Malaysian consumer purchasing behaviours provide comparative insights with other countries and offer a roadmap for international brands in tackling the cosmetic market in Malaysia. Understanding determinant factors such as product image, brand, and advertisement is essential for businesses aiming to thrive in this dynamic cosmetic market in Malaysia. Recommended marketing strategies should focus more on advertising and enhancing brand exposure to develop brand familiarity among potential consumers. The product's pricing and quality should meet consumer expectations, ultimately fostering brand loyalty. Future studies could explore differences in consumer purchase behaviour between races and cultures in Malaysia, given the country's multicultural context. By acknowledging and adapting to these influences, companies can tailor their marketing strategies and policies to meet the evolving needs and preferences of Malaysian consumers in the cosmetic industry. Future research may also explore the evolving role of technology in influencing consumer choices, including augmented reality beauty apps and personalized skincare solutions.

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## Potential Conflict of Interest

The authors declare that there are no conflicts of interest.

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## References

1. Kumar S. Exploratory analysis of global cosmetic industry: major players, technology and market trends. *Technovation*. 2005;25[11]:1263-72.
2. Statista. Personal care in Malaysia [Internet]; 2023 [cited 2023 Oct 27]
3. Boon LK, Fern YS, Chee LH. Generation Y's Purchase Intention towards Natural Skincare Products: A PLS-SEM Analysis. *Global Business and Management Research*. 2020;12[1]:61-77.
4. Charlton A. Quarterly Essay 54 Dragon's Tail: The Lucky Country After the China Boom. *Quarterly Essay*; 2014.
5. Khan N, Sarwar A, Tan BC. Determinants of purchase intention of halal cosmetic products among Generation Y consumers. *Journal of Islamic Marketing*. 2021;12[8]:1461-76.
6. Hashim AJ, Musa R. Factors influencing attitude towards halal cosmetic among young adult Urban Muslim women: A focus group analysis. *Procedia-Social and Behavioral Sciences*. 2014;130:129-34.
7. Hassali MA, Al-Tamimi SK, Dawood OT, Verma AK, Saleem F. Malaysian cosmetic market: Current and future prospects. *Pharmaceutical Regulatory Affairs*. 2015;4[4]:1-3.
8. Al Mamun A, Nawi NC, Hayat N, Zainol NR. Predicting the purchase intention and behavior towards green skincare products among Malaysian consumers. *Sustainability*. 2020;12[24]:10663.

9. Zakaria Z, Ramli SQ, Shoid NZ, Sulaiman A. Malaysian Males Skincare Product Purchases. *Asian Journal of Research in Business and Management*. 2021;3[3]:94-103.
10. Khan AF, Khan MF. A study on the awareness of product ingredients among women skincare users in state of Madhya Pradesh. *ISOR Journal of Business and Management*. 2013;14[4]:65-72.
11. National Pharmaceutical Regulatory Agency [NPRA]. *Cosmetic Guideline [Annex I – VII]*; [Cited September 2023].
12. The Council of The European Communities Official Journal of the European Commission – L series 151, P. 0032-0037. Directive 93/35/EEC. [Cited September 2023].
13. Idris J, Sabri MF, Fauzi NM. Antecedents of Customers Purchasing Decisions on Halal Cosmetics. *e-Proceedings of the 3rd International Halal Management Conference 2021 [3rd IHMC 2021]*. 2021.
14. Lee JE, Goh ML, Mohd Noor MN. Understanding purchase intention of university students towards skin care products. *PSU Research Review*. 2019;3[3]:161-78.
15. Shamsudin MF, Hassan S, Ishak MF, Ahmad Z. Study of purchase intention towards skin care products based on brand awareness and brand association. *Journal of Critical Reviews*. 2020; 7[16]:990–996.
16. Khuong MN, Duyen HT. Personal factors affecting consumer purchase decision towards men skin care products—A study in Ho Chi Minh City, Vietnam. *International Journal of Trade, Economics and Finance*. 2016;7[2]:44-50.
17. Mohammed AH, Blebil A, Dujaili J, Hassan BA. Perception and attitude of adults toward cosmetic products amid COVID-19 pandemic in Malaysia. *Journal of cosmetic dermatology*. 2021;20[7]:1992-2000.
18. Infante VH, Calixto LS, Campos PM. Cosmetic consumption behavior among men and women and the importance in products indication and treatment adherence. *Surg Cosmet Dermatol*. 2016;8[2]:231-41.
19. Humphrey S, Brown SM, Cross SJ, Mehta R. Defining skin quality: clinical relevance, terminology, and assessment. *Dermatologic Surgery*. 2021;47[7]:974.
20. Ojala H, Calasanti T, King N, Pietilä I. Natural [ly] men: masculinity and gendered anti-ageing practices in Finland and the USA. *Ageing & Society*. 2016;36[2]:356-75.
21. Khalaffathin MA, Saputri ME. Analysis of The Factor Driving the Purchase Decision of Male Skin Care Product [study On Facial Wash Garnier Men]. *eProceedings of Management*. 2019;6[2].
22. Puspasari MA, Aprilianty F. Factors Affecting Consumer Purchase Behavior Towards Men Skincare Products in Indonesia. *Proceeding Book of the 4th ICMEM 2019 and the 11th IICIES*. 2019; 7-9.
23. Mounghkem C, Surakiatpinyo J. A Study of Factors Affecting on Men's Skin Care Products Purchasing, particularly in Karlstad, Sweden. [Internet]; 2010 [Cited September 2023]. Available from: <https://urn.kb.se/resolve?urn=urn:nbn:se:kaau:diva-6116>
24. Souiden N, Diagne M. Canadian and French men's consumption of cosmetics: a comparison of their attitudes and motivations. *Journal of Consumer marketing*. 2009;26[2]:97-109.
25. Ling GM, Lim KB, Yeo SF, Tan SH. Purchasing determinants of men towards the skin care products. *6th International Conference on Economics and Social Sciences [ICESS]*. 2015.
26. Abd Razak N, Marmaya NH, Muhammad NM, Wee F, Sadik MZ, Juhari J, Harun H. Protection Motivation Theory and Skincare Risks: The Role of Social Influence towards Purchasing Intentions of Local Cosmetic Products. *Sciences*. 2021;11[11]:1416-24.
27. Apaolaza-Ibáñez V, Hartmann P, Diehl S, Terlutter R. Women satisfaction with cosmetic brands: The role of dissatisfaction and hedonic brand benefits. *African Journal of Business Management*. 2011;5[3]:792.
28. Malhotra P. *The beauty of being a beautician*. Chandigarh, The Tribune. 2003.

29. Euromonitor International. Beauty and personal care in Portugal. [cited September 2023]. Available from <http://www.euromonitor.com/beauty-and-personal-care-in-portugal/report>
30. Pathmaperuma CR, Fernando PIN. Factors affecting on consumer purchasing behavior of Ayurvedic skin care products: A study of female consumers in Colombo District of Sri Lanka. 2018;5[1]:13-19.
31. Dhillon R, Agarwal B, Rajput N. Experiential marketing strategies used by luxury cosmetics companies. *Innov. Mark.* 2022; 18:49-62.
32. Scherer RW, Saldanha IJ. How should systematic reviewers handle conference abstracts? A view from the trenches. *Systematic reviews.* 2019 ;8:1-6
33. Hussin SR, Hashim H, Yusof RN, Alias NN. Relationship between product factors, advertising, and purchase intention of halal cosmetic. *VOL. 21 (S) JUN.* 2013. 2013:85.
34. Abd Rahman A, Asrarhaghighi E, Ab Rahman S. Consumers and Halal cosmetic products: knowledge, religiosity, attitude and intention. *Journal of Islamic Marketing.* 2015;6(1):148-63.
35. Jihan A, Musa R, Hassan F. Factorial validation predictors of attitude among user and nonuser of halal skin care product. *Procedia Economics and Finance.* 2016 Jan 1;37:239-44.
36. Mohezar S, Zailani S, Zainuddin Z. Halal cosmetics adoption among young Muslim consumers in Malaysia: Religiosity concern. *Global Journal Al-Thaqafah.* 2016;6(1):47-59.
37. Yeo BL, Mohamed RN, Muda M. A study of Malaysian customers purchase motivation of halal cosmetics retail products: Examining theory of consumption value and customer satisfaction. *Procedia Economics and Finance.* 2016;37:176-82.
38. Anuar MI, Kasuma J, Yacob Y, Kamaruddin HM, Shahrinaz I, Fadil MZ. Metrosexual Men: Intention to Purchase Facial Care Product, Attitude or Price?. *Advanced Science Letters.* 2017;23(8):7614-7.
39. Ghazali E, Soon PC, Mutum DS, Nguyen B. Health and cosmetics: Investigating consumers' values for buying organic personal care products. *Journal of Retailing and Consumer Services.* 2017;39:154-63.
40. Mohammad N, Baharun R. Intention to purchase organic personal care product. *Advanced Science Letters.* 2017;23(8):7367-9.
41. Ahmad SN, Omar A. Influence of perceived value and personal values on consumers repurchase intention of natural beauty product. *International Journal of Supply Chain Management.* 2018;7(2):116-25.
42. Haque A, Anwar N, Tarofder AK, Ahmad NS, Sharif SR. Muslim consumers' purchase behavior towards halal cosmetic products in Malaysia. *Management Science Letters.* 2018;8(12):1305-18.
43. Ali Q, Salman A, Yaacob H, Parveen S. Financial cost and social influence: Factors affecting the adoption of Halal cosmetics in Malaysia. *Academy of Entrepreneurship Journal.* 2019;25(2):1-7.
44. Hafiz KA, Ali KA. The influence of product attributes on young consumers' purchase decision of makeups among malaysian: The mediating effects of perceived brand image, CEO's image, and quality. *CEO's image, and quality.* 2019.
45. Jan M, Haque A, Abdullah K, Anis Z. Elements of advertisement and their impact on buying behavior: A study of skincare products in Malaysia. *Management Science Letters.* 2019;9(10):1519-28.
46. Quoquab F, Mohammad J, Shahrin R. Pro-environmental behavior in nutricosmetics product purchase context: Scale development and validation. *International Journal of Pharmaceutical and Healthcare Marketing.* 2020;14(2):217-50.
47. Ishak S, Che Omar AR, Khalid K, Ab. Ghafar IS, Hussain MY. Cosmetics purchase behavior of educated millennial Muslim females. *Journal of Islamic Marketing.* 2020;11(5):1055-71.
48. Shahrin R, Quoquab F, Mohammad J, Jamil R. Factors affecting consumers' pro-

- environmental behavior in nutricosmetics consumption: the role of perceived environmental responsibility as a mediator. *Journal of Asia Business Studies*. 2020; 14(5):671-89.
49. Jaini A, Quoquab F, Mohammad J, Hussin N. Antecedents of green purchase behavior of cosmetics products: An empirical investigation among Malaysian consumers. *International Journal of Ethics and Systems*. 2020;36(2):185-203.
  50. Jaini A, Quoquab F, Mohammad J, Hussin N. I buy green products, do you horizontal ellipsis? The moderating effect of eWOM on green purchase behavior in Malaysian cosmetics industry. *Int J Pharm Healthc Mark*. 2020;14(1):89-112.
  51. Al Mamun A, Nawil NC, Hayat N, Zainol NR. Predicting the purchase intention and behavior towards green skincare products among Malaysian consumers. *Sustainability*. 2020;12(24):10663.
  52. Quoquab F, Jaini A, Mohammad J. Does it matter who exhibits more green purchase behavior of cosmetic products in Asian culture? A multi-group analysis approach. *International journal of environmental research and public health*. 2020;17(14):5258.
  53. Abd Jalil MI, Lada S, Bakri MA, Hassan Z. Halal cosmetics repurchase intention: The role of marketing in social media. *Journal of Islamic Monetary Economics and Finance*. 2021;7(4):629-50.
  54. Khalid NR, Che Wel CA, Mokhtaruddin SA. Product positioning as a moderator for halal cosmetic purchase intention. *Interdisciplinary Journal of Management Studies (Formerly known as Iranian Journal of Management Studies)*. 2021;14(1):39-60.
  55. Ngah AH, Gabarre S, Han H, Rahi S, Al-Gasawneh JA, Park SH. Intention to purchase halal cosmetics: do males and females differ? A multigroup analysis. *Cosmetics*. 2021;8(1):19.
  56. Ngah AH, Mansor TM, Gabarre C, Rahi S, Khan S, Ahmad R. I love my cosmetics: educated young Muslim's behavior of non-halal certified cosmetics. *Journal of Islamic Marketing*. 2022;14(11):2798-820.
  57. Ariffin SK, Lee TM, Mohsin AM. The Effects of Malaysian Consumer's Emotions on Attitude Towards Mobile Advertising of Cosmetic Products. *Malaysian Journal of Consumer and Family Economics*. 2022;28:378-404.
  58. Othman NH, Hoo WC, Cheng AY. Factors Influencing Purchase Intention of Korean Skincare Products: Malaysian Gen-Y Females. *WSEAS Transactions on Business and Economics*. 2022;19:2000-6.
  59. Cheng WH, Goh YN, Zainal NN, Janifer L. Blog Influence on Purchase Intention of Beauty and Cosmetics Products: The Psychological Antecedents. *Malaysian Journal of Consumer and Family Economics*. 2022.
  60. Osman S, Cheng KW, Wider W. Factors Affecting the Halal Cosmetics Purchasing Behavior in Klang Valley, Malaysia. *FWU Journal of Social Sciences*. 2022;16(4):102-20.
  61. Taher SS, Chan TJ, Zolkepli IA, Sharipudin MN. Mediating Role of Parasocial Relationships on Social Media Influencers' Reputation Signals and Purchase Intention of Beauty Products. *Romanian Journal of Communication and Public Relations*. 2022;24(3):45-66.
  62. Zaidi FL, Jamaluddin MA, Tukiran NA. Muslim consumers' perception on counterfeit cosmetics. *Malaysian Journal of Syariah and Law*. 2022.
  63. Abdullah SI, Ali SF, Phuah KT. Love, trust and follow them? The role of social media influencers on luxury cosmetics brands' purchase intention among Malaysian urban women. *Malaysian Journal of Consumer and Family Economics*. 2023;30:271-301.
  64. Fauzi MA. Consumer purchase of halal certified product: a quantitative systematic literature review. *Journal of Islamic Marketing*. 2023;14(6):1397-416.
  65. Isa RM, Man S, Rahman NN, Aziz A. Determinants of consumer adoption of halal cosmetics: A systematic literature review.

- Journal of cosmetic dermatology. 2023;22(3):752-62.
66. Masood A, Hati SR, Rahim AA. Halal Cosmetics Industry for Sustainable Development: a Systematic Literature Review. *International Journal of Business and Society*. 2023.
  67. Septiarini DF, Ratnasari RT, Salleh MC, Herianingrum S. Drivers of behavioral intention among non-Muslims toward halal cosmetics: evidence from Indonesia, Malaysia, and Singapore. *Journal of Islamic Accounting and Business Research*. 2023;14(2):230-48.
  68. Zaidi FL, Jamaludin MA, Tukiran NA. Perception of Counterfeit Cosmetics among Muslim Consumers in Putrajaya. 2023.
  69. Vergura DT, Zerbini C, Luceri B. Consumers' attitude and purchase intention towards organic personal care products. An application of the SOR model. *Sinergie Italian Journal of Management*. 2020; 38(1):121-37.
  70. Vieira VA. Stimuli–organism–response framework: A meta-analytic review in the store environment. *Journal of Business research*. 2013;66(9):1420-6.
  71. Osman S, Cheng KW, Wider W. Factors Affecting the Halal Cosmetics Purchasing Behavior in Klang Valley, Malaysia. *FWU Journal of Social Sciences*. 2022;16[4]:102-20.
  72. Razy FF, Lajevardi M. Investigating relationship between brand image, price discount and purchase intention. *Journal of Marketing and Consumer Research*. 2015;17:49-56.
  73. Lionetti N, Rigano L. Labelling of cosmetic products. *Cosmetics*. 2018;5[1]:22.
  74. Rani NS, Krishnan KS. Factors that influence Malay students in purchasing skincare products in Malaysia. *Journal of Business and Retail Management Research*. 2018; 13[1].
  75. Othman AS, Abd Rahman I, Teoh N, Omar AR, Osman LH. An Empirical Study on the Factors Influencing Consumers' Purchase Intention of Cosmetic Products. *Malaysian Journal of Social Sciences and Humanities [MJSSH]*. 2022;(6):e001512-.
  76. Aziz AA, Taher ZM, Muda R, Aziz R. Cosmeceuticals and natural cosmetics. Recent trends in research into Malaysian medicinal plants research. Penerbit UTM Press, Malaysia. 2017:126-75.
  77. Weber JM, De Villebonne JC. Differences in purchase behavior between France and the USA: the cosmetic industry. *Journal of Fashion Marketing and Management: An International Journal*. 2002;6(4):396-407.
  78. Ajzen I. Understanding attitudes and predicting social behavior. Englewood cliffs. 1980.
  79. Ajzen I. The theory of planned behavior. *Organizational behavior and human decision processes*. 1991;50(2):179-211.
  80. Rubiyanti N, Mohaidin Z. The Linking of Brand Personality, Trust, Attitude and Purchase Intention of Halal Cosmetic in Indonesia; A Conceptual Paper. *International Journal of Engineering & Technology*. 2018;7(4.38):1292-1295.
  81. Naseri RN, Rahmiati F, Esa MM. Consumer attitude and online purchase intention: A segmentation analysis in malaysian halal cosmetic industry. *International Journal of Academic Research in Business and Social Sciences*. 2021;11[3]:655-663.
  82. Fishbein M, Ajzen I. Belief, attitude, intention, and behavior: an introduction to theory and research. *Journal of Business Venturing*. 1977; 5:177-189.
  83. Lee JE, Goh ML, Mohd Noor MN. Understanding purchase intention of university students towards skin care products. *PSU Research Review*. 2019; 3(3):161-78.
  84. Li J, Guo F, Xu J, Yu Z. What influences consumers' intention to purchase innovative products: Evidence from China. *Frontiers in Psychology*. 2022;13:838244.
  85. De Cannière MH, De Pelsmacker P, Geuens M. Relationship quality and purchase intention and behavior: The moderating impact of relationship strength. *Journal of Business and Psychology*. 2010;25:87-98.



86. Schiffman LG, Kanuk LL, Wisenblit J.  
Consumer Behavior, Global Tenth Edition.  
United State of America: Pearson Prentice  
Hall. 2010.