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Cosmetic buying behavior: examining the effective factors

化妆品购买行为：检测有效的影响因素

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This paper reports on the results of a cross-sectional study that focused on the impact of attitudes, subjective norms and consumer innovativeness on intention to purchase cosmetic products. Beginning with the Theory of Reasoned Action (Ajzen & Fishbein, 1980; Fishbein, 1980; Fishbein & Ajzen, 1975), several models have been proposed to conceptualize the complex behavioral and social process by which individuals adopt new products. We argue here that the inclusion of an important individual difference variable – consumer innovativeness in conjunction with attitude and perceptions of subjective norms – would help us further understand both how perceptions are formed and the subsequent role they play in purchase intentions regarding cosmetic products. Data were collected through a mall-intercept questionnaire conducted in different well-known shopping malls in Sweden. Analyses included tests of the significance impact of these variables on intention to purchase cosmetic products. The findings offer lessons for practitioners and more avenues of study for researchers. The paper advances the understanding of three key antecedents by investigating structural relationships among attitudes towards new cosmetic products, novelty-seeking tendencies, behaviors and attitudes of people with the intention to purchase skin care and make up products.

Keywords: attitudes; subjective norms; consumer innovativeness; skin care; make up products

公元前400年，希腊奥林匹克运动员使用沙土和油混合制成的防晒油保护皮肤。公元前600年，中国人运用树胶，蛋白，明胶与蜂蜡研制出指甲油。近几十年来，化妆品产业的发展日新月异，同时，亚洲、东欧与南美市场的消费需求也飞速增长。虽然化妆品的使用随着时代的变迁不断改变，但无论在哪个时代，无论在世界哪个角落，爱美之心人皆有之；在现代社会，女性是化妆品与护肤品的主要消费者和使用者。

化妆品与美的联系非常密切，因为化妆品与服装和首饰一样，是女性对追求美的一种重要表达方式。化妆品行业是一个全球公认的高速发展，引人注目，高利润，创新型，但同时竞争激烈的行业。据数据监控（2010）显示，2009年全球市场规模为2237亿美元，与2008年的2156亿美元的市场规模相比提升了3.7%。

本研究基于一个跨域研究结果，主要研究态度，主观规范与消费者创新对化妆品产品购买意图的影响。首先运用理性行为理论(Ajzen&Fishbein, 1980; Fishbein, 1980; Fishbein&Ajzen, 1975)构建模型，将消费者使用新产品采用的复合行为与社会进程概念化。本研究认为纳入重要个体差异化变量（消费者创新与主观规范的态度和认知）可以帮助我们更加深入的了解认知是如何形成的，并且化妆品产品购买意图中认知的作用。

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本文数据来自瑞典知名购物中心的拦截访问。本研究包括对化妆品产品购买意图变量影响的测试。结果为从业者与研究者提供了重要参考价值。本文通过研究对新化妆品产品的态度，创新潮流，他人购买护肤及化妆品的行为和态度之间的结构关系深入探讨了三个主要前提条件。

关键词：态度，主观规范，消费者创新，护肤，化妆品

1. Introduction

Cosmetics have been used for thousands of years; use of cosmetics can be traced back to ancient times, including the Egyptian, Greek, and Roman eras (Kumar, Massie, & Dumonceaux, 2006). In recent decades, the cosmetic industry has expanded rapidly, in keeping with dramatic growth and aggressive consumption in the Asian, Eastern European, and South American markets (Kumar, 2005). Consumers wear makeup for the purposes of “sexual attractiveness,” “social and professional interaction success,” “emotional pleasure,” “better physical appearance,” “self-perception,” and to create a “symmetrical face” (Dellinger & Williams, 1997; Mulhern et al., 2003; Vanessa, Hartmann, Diehl, & Terlutter, 2010). Miller and Cox (1982) note that cosmetic products such as foundation, mascara, and blush are a quick and impermanent means to improve one’s appearance and thus improve confidence. Through their persistence in overcoming barriers to distribution in far-flung communities, a large number of cosmetic sales people have succeeded to influence potential consumers to purchase the cosmetic products (Anderson & Markides, 2006). Several scholars (e.g., Kim, Di Benedetto, & Hunt, 2012; Ko, Lee, Kim, & Burns, 2010; Ko, Sung, & Yoon, 2008; Lee, Qu, & Kim, 2007; Mahatanankoon, 2007; O’Cass & Fenech, 2003) have investigated motivational perceptions related to consumers’ attitude formation, and the attitude-based theory, or theory of reasoned action (Ajzen & Fishbein 1980), has received considerable attention in recent years (Lee et al., 2007). The theory of reasoned action (TRA) suggests that intentions are the direct outcome of attitude (and subjective norms), such that there are no intervening mechanisms between the attitude and the intention (Brady et al., 2005). However, despite the importance and the implications of this attitude-based framework for sales, most research has been focused on service industries such as the hotel industry (Ekiz & Au, 2011), technology (Venkatesh, Morris, & Ackerman, 2000), CRM technology (Avlonitis & Panagopoulos, 2005), psychology models specific to information technology usage (Taylor & Todd, 1995), and internet shopping (Connolly & Bannister, 2008), with less attention given to the framework in terms of cosmetic products. Given the fact that the new cosmetic products pipeline usually is in a “launch of the month” (Bartlett, 2004, p. 13), and that cosmetics consumers’ attitudes and behaviors are believed to be in a constant state of flux (Kumar, 2005), it is surprising that none of the previous studies have focused on new cosmetic buying behavior. Moreover, we believe that some knowledge of consumer behavior is not always adequate to deal with specific situations and the complications that can ensue. More specifically, our knowledge about TRA was gained from other fields of studies which may not necessarily be applicable for cosmetic products. It may be reminiscent of the notion “it is sometimes claimed that if you can market cars you can market cosmetics – it’s all the same. This is a myth.”

Fishbein and Ajzen (1975) argued that adoption decisions (i.e., individual intention to use a new product) are driven by an individual’s affective response (attitude) toward the use of the innovation and, in turn, the impact of both attitudes and normative factors on behavior is mediated through behavioral intentions. Adopting the theory of reasoned

action (TRA) (Fishbein & Ajzen, 1975), which provides a theoretical foundation explaining consumers' purchasing behavior (Lee, Qu, & Kim, 2007), this study attempts to determine how individuals' behavior varies with regard to cosmetics depending on their consumer innovativeness, subjective norms, and attitude. More specifically, this study scrutinizes whether three key antecedents (i.e., attitude, subjective norm, and consumer innovativeness) are significant variables in predicting cosmetic shopping behavior.

2. Background and literature review

Personality is a set of internal interpersonal strategies that influence the actions and values of everyone (Tajeddini & Tajeddini, 2012a). A person's personality (i.e. their set of psychological traits) is a relatively stable precursor of behavior; it underlies an enduring style of thinking, feeling and acting (Guthrie et al., 2003). Personality traits are important predictors of our actions (Paunonen & Ashton, 2001). Briefly stated, advancing innovations in social/personality psychology posit that three concepts, namely (1) attitude toward a given behavior, (2) subjective norms, and (3) propensity to buy more new products, and do so more quickly than other people, precede the formation of intention (Ajzen, 1991; Goldsmith, d'Hauteville, & Flynn, 1998; Midgley & Dowling, 1978). In the following section we review each of these concepts and develop our hypotheses.

2.1 Attitude toward a given behavior

Attitude is defined as an individual's affect for or against an object (Fishbein, 1963). Attitude toward a behavior is a reflection of the individual's appraisal of the behavior (Byabashaija and Katono, 2011). This appraisal represents a person's overall evaluative effect along a continuum running from favorable to unfavorable with regard to undertaking the particular behavior (Ajzen & Fishbein, 1980). More specifically, if a customer has a positive attitude toward a specific behavior, the more likely would he/she intend to purchase, whereas a negative attitude would dispose consumers' prevention tendencies (Verbeke & Vackier, 2005). Under its affective acceptance, attitude toward skincare cosmetics is an emotional appreciation based on pleasure and attraction indicating the desire of improving appearance through skincare products (Aurier & de Lanauze, 2012; Marcoux, 2000). Kyung (2012) argues that if a consumer is certain that buying skin care products provides positive outcomes (e.g., protects the skin, prevents aging), it is more likely that she will have a positive attitude toward purchasing the products. Following Marcoux (2000), We posit the notion that the skincare cosmetic consumption would gain a positive outcome associated to the personal aspirations, and the more likely she would be to have a favorable attitude toward skincare cosmetic products. In other words, attitude may constitute an important aspect in the relational process of purchasing intention.

As opposed to skincare products, consumers' make-up consumption does not contribute to the similar care of skin conditions. Similar to apparel, colour cosmetics (make-up) inscribe the attributes of the personality. Make-up products play a significant role in increasing attractiveness as a result of enhancing facial symmetry (Mulhern et al., 2003), creating a uniform skin texture or covering imperfections and flaws (Nash et al., 2006), and changing color tones and shadings. Nash et al. (2006) argue that women hold different attitudes toward using make-up cosmetics; as a result we can argue that if the female cosmetic consumer believes that the make-up cosmetic consumption gains a positive outcome to her outward physical appearance. Likewise, the more likely would she would be to have a favorable attitude toward make-up cosmetic products. The dichotomy

may increase her intention to purchase new make-up cosmetic products. Therefore, the following hypotheses are formulated:

- H1a: Attitude toward skincare cosmetics will promote cosmetic consumers' intention to purchase new skincare products.
- H1b: Attitude toward make-up cosmetics will promote cosmetic consumers' intention to purchase new make-up products.

2.2 Subjective norms

"Subjective norms" refer to the degree to which family, friends, peers and society at large expect or pressurize an individual to perform the behavior in question (Autio et al., 1997; Byabashaija & Katono, 2011). In other words, the behaviors and attitudes of other people play a vital role in the decision-making aspect of human behavior (Taylor & Todd, 1995; Venkatesh et al., 2000). The presumption is that the more favorable the social norm, the greater will be the inclination to perform the behavior (Byabashaija & Katono, 2011). Subjective norms are considered an immediate variable of intentions toward performing behavior and represent the person's significant referents' approval of behavior (Shim, Eastlick, Lotz, & Warrington, 2001). Women are more often judged and valued according to their esthetic appearance (Nash et al., 2006), and perceptions of subjective norms are considered powerful forces in women's decision-making processes (Venkatesh et al., 2000). Several researchers (e.g., Kim & Chung, 2011; Souiden & Diagne, 2009; Sukato & Elsey, 2009) have found a positive correlation between perceptions of subjective norms and behavioral intentions.

Make-up, on the other hand, functions to contribute to the social body in support of customers' expressions of their inner world (Lee & Kim, 2006). It can be argued that female consumers may use social comparison processes to contribute to the features of attractiveness (Guthrie et al., 2008; Vanessa et al., 2009). It has been suggested that subjective norms have significant influence on consumers' purchase intentions, especially in cases where fashion and trends are considered more relevant (Crespo & Rodríguez, 2008). Therefore, we assume that perceptions of subjective norms with regard to skincare and make-up cosmetics will promote cosmetic consumers' intention to purchase new skincare products. Thus,

- H2a: Subjective norms about skincare cosmetics will significantly impact women's intentions to purchase new skincare products.
- H2b: Subjective norms about make-up will significantly impact women's intentions to purchase new make-up products.

2.3 Consumer innovativeness

Consumer innovativeness, or "consumption of newness" (Roehrich, 2004), refers to those who have a tendency to be attracted by new products and services and buy them more often and more quickly than other people (Steenkamp, Ter hofstede, & Wedel, 1999; Tajeddini & Tajeddini, 2012b). In other words, it transforms their actions from routine purchasing of a static set of brands and products to dynamic behavior (Hirschman, 1980; Tajeddini & Trueman, 2014). Some of the reasons why individuals have such a tendency include novelty-seeking, optimal stimulation levels, variety-seeking, and exploratory tendencies (Wood & Swiat, 2002). With regard to cosmetic products, prior studies (e.g.,

Kim et al., 2011; Tellis et al., 2009) have found that women tend to be more innovative in purchasing new cosmetic products than male consumers are. Past research (e.g., Beausoleil, 1994; Etcoff, 1999; Park, Ko, & Kim, 2010; Peiss, 1998) shows that cosmetics are a ubiquitous element in women's consumption behavior. Women turn to cosmetics and beauty treatments to improve self-image and personal appearance. Closely related to this is the fact that female innovators appear to be more fashion-conscious, as well as seeming to be more sensitive to beauty and appearance (Jordaan & Simpson, 2006). Following the theory of "diffusion of innovation" (Midgley & Dowling, 1978) and the above discussion, we posit that early adopters or innovative consumers of cosmetic products (skin care and make-up) represent a key market segment that plays an essential role in the success of a new product, as they legitimize new products for other customers (see Goldsmith & Flynn, 1995). Thus we assume:

- H3a: Consumer innovativeness in relation to skincare cosmetics will significantly impact women's intentions to purchase new skincare products.
- H3b: Consumer innovativeness in relation to make-up will significantly impact women's intention to purchase new make-up products

3. Method

Prior to data collection in 2012, a draft questionnaire, prepared using well-established scales drawn from the relevant literature, was subjected to a pre-test. We pre-tested our scale items with three academics and eight female consumers of cosmetic products to assess the research design's quality. In this regard, the respondents were asked to evaluate the contents and meaningfulness of the items. To test the hypotheses, an interviewer-administered, mall-intercept questionnaire was conducted in different well-known shopping malls across the three Metropolitan areas (Stockholm, Göteborg, and Malmö) in Sweden. While not representative of the population in general, shopping mall customers do constitute a major share of the market for many products (see Bush & Hair, 1985; Nowell & Stanley, 1991). Collecting data through the mall intercept/personal interview method has a number of advantages: for example, personal interviews enable the individual involved in data collection to clarify and explain unclear or potentially confusing questions to the respondent (Keillor et al., 2007). Personal interviews have also been confirmed to be less susceptible to social desirability and halo effect biases than other typical forms of data collection (Han et al., 1994). Around 400 women were invited to participate in the survey in Sweden, with their willingness and interest in using skincare and make-up cosmetic products. Altogether, 210 completed surveys were recruited, of which 194 were usable, making a response rate of 48.5 percent.

3.1 Measures

It is important to bear in mind that "cosmetics," in this research, involves skincare cosmetic products (e.g., facial moisturizer, nourishers/anti-agers, skin-whitening products) as well as make-up (e.g., foundation, concealer, blusher/bronzer) for different products we used the same measures. The measures of attitude toward the new cosmetic products adopted from Petty et al. (1983) using a 5-point semantic differential scale was used because of its emphasis of an individual's values performing the target behavior. This scale reflects overall considerations of favorable/unfavorable, bad/good, foolish/wise, and harmful/beneficial. *Subjective norms* (behaviors and attitudes of other people) were

quantified using four items adopted from Ajzen and Fishbein (1980) and Taylor and Todd (1995). Respondents were required to answer on 5-point semantic differential scales reflecting considerations of foolish/wise, useless/useful, and worthless/valuable. *Consumer innovativeness* was assessed using four items adopted from Goldsmith and Hofacker (1991) and Agarwal and Prasad (1998a, 1998b) which reflect the innovative behavior of consumers. *Purchase intentions* were measured by asking whether the subject would actually purchase a product when available on the market with reference to three 5-point semantic differentials.

Table 1 provides some information about the respondents' demographic and organizational characteristics. The portion of participants aged between 15 and 44 years represents four-fifths (83%) of the total 194 data. This skewed nature of the age distribution reflects a young study experiment group, particularly since the majority (36%) fell into the age range of at least 25 but not more than 34 years old.

3.2 Data analysis

We employed confirmatory factor analysis (CFA) using AMOS to test the construct validity of the measures. After data collection, a purification process was applied and two sets of statistics were used for verification of unidimensionality and convergent validity (Venkatraman, 1989): (a) the significance of the factor loadings (z -values $> \pm 1.96$ and $p < 0.05$), that is the estimated correlation between a particular item and the latent construct it represents; (b) the overall acceptability of the measurement model in terms of its fit to the data using a χ^2 test and adjunct fit indices, to exceed the cut-off point of 0.90. Table 2 reports the results in support of unidimensionality and convergent validity of the variables in skin care and make-up products.

The CFA model for skincare resulted in a reasonable fit to the data, with comparative fit index [CFI] = .95; incremental fit index [Delta2] = .95; (exceeding .90); Chi-square [χ^2] = 59.64; degree of freedom [df] = 17, χ^2/df = 3.51, p value = 0.00 (Gerbing and Anderson, 1992). Root mean square error of approximation [RMSEA] = .048 value close to .05 (cf. Browne & Cudeck, 1993) indicates a close fit (see Table 2). The CFA model for make-up also resulted in a reasonable fit to the data, with $\chi^2_{(17)} = 81.12$, χ^2/df = 4.77, p value = 0.00, robust CFI = .94, RMSEA = .048, Delta2 = .94, TLI = .870, RMR = 0.020 (see Table 2). Composite reliabilities¹ (CRs) were used to assess the degree of consistency between multiple measurements of a construct (Hair et al., 2005) and average variance extracted² (AVE) was used to measure the convergent validity (Anderson & Gerbing, 1988; Tajeddini, 2010, 2011). The CRs of the constructs were exceeded 0.70, which is the acceptable level suggested by Bagozzi and Yi (1988). The values of average variance extracted from the constructs also exceed the threshold level (0.50) suggested by Bagozzi et al. (1991).

Following the reliability analysis, we established discriminant validity through two independent methods. First, we measured the square of the intercorrelations between any two constructs and found they were less than the AVE estimates of the same constructs for all pairs (Fornell & Larcker, 1981) (Table 3). In doing so, we computed the shared variance between each pair of constructs and verified that it was lower than the variances extracted for the involved constructs (Fornell & Larcker, 1981). As shown in Table 3, the average variances extracted were above 50% for all constructs. The shared variances between pairs of all possible scale combinations indicated that the average variances extracted were higher than the associated shared variance in all cases. Second, we assessed whether the correlation between any two constructs was different from unity (+1 or -1) (i.e., perfect correlation) (Bagozzi et al., 1991) and also calculated 95% confidence

Table 1. Profile of respondents (Demographic variables) ($n = 194$).

Characteristics	Relative Frequency (%)	Frequency	Characteristics	Relative Frequency (%)	Frequency
Age			Marital Status		
< 15	1.5	3	Single	33.0	64
15 but less than 25	33.0	64	Partner (living separately)	17.5	34
25 but less than 35	35.6	69	Partner (cohabiting)	21.6	42
35 but less than 45	14.4	28	Married	23.7	46
45 but less than 55	8.8	17	Divorced/Separated	4.5	3
55 but less than 65	5.2	10	Widow	1.0	2
65 and above	1.5	3	Missing data	1.5	3
Education			Cosmetic product use per Day		
Compulsory school	6.2	12	Less than 4 products	49.0	95
Upper secondary school	28.3	54	4 but less than 8 products	36.1	70
University and above	65.4	125	8 but less than 12 products	10.3	20
Missing data	1.5	3	12 but less than 16 products	3.1	6
Duration of Cosmetic usage			16 but less than 20 products	0	0
Less than 5 years	10.3	20	More than 20 products	1.5	3
5 but less than 10 years	22.7	44	Cosmetic Purchase Frequency		
10 but less than 15 years	30.9	60	More than once a month	5.2	10
15 but less than 20 years	11.9	23	About once a month	21.0	41
20 but less than 25 years	10.3	20	About once every three months	38.1	74
25 but less than 30 years	2.6	5	About once every six months	18.6	36
30 but less than 35 years	4.1	8	About once a year	12.4	24
35 but less than 40 years	2.1	4	Anytime	4.6	9
40 but less than 45 years	2.6	5	Place of Residence		
45 but less than 50 years	0.5	1	Metropolitan area	83.8	85
More than 50 years	1.0	2	Urban area	41.2	80
Missing data	1.0	2	Rural area	9.8	19
			Other	4.6	9
			Missing data	.5	1

Table 2. Unidimensionality and convergent validity tests. Skincare and make-up Cosmetic Measurement Model and Confirmatory Factor Analysis.

Constructs	Indicator (parameter) skincare	Factor loadings	Indicator (parameter) make-up	Factor loadings
Attitude	$\alpha = .882$, CR = 0.91, AVE = 0.74 Using skincare products is a good idea $\alpha = .897$, CR = 0.94, AVE = 0.90 Using skincare products is wise I like the idea of using skincare products To me, skincare products are pleasurable $\alpha = .820$, CR = 0.64, AVE = 0.54 People who are important to me think that I should use skincare products Generally, I spend little time exploring how to use new skincare products In general, I am hesitant to try out new skincare products Among my peers, I am usually the first to try out new skincare products I like to experiment with new skincare products	.82 .84 .86 .71a .86 .95a .83 .77 .79 .89a	$\alpha = .901$, CR = 0.91, AVE = 0.74 Using make-up products is a good idea Using make-up products is wise I like the idea of using make-up products To me, make-up products are pleasurable $\alpha = .915$, CR = 0.94, AVE = 0.90 People who are important to me think that I should use make-up products Most people who influence my behavior think that I should use make-up products $\alpha = .819$, CR = 0.64, AVE = 0.56 Generally, I spend little time exploring how to use new make-up products In general, I am hesitant to try out new make-up products Among my peers, I am usually the first to try out new make-up products I like to experiment with new make-up products	.87 .85 .81 .80a .91 .93a .88 .89 .84 .83a
Subjective Norm	$\alpha = .897$, CR = 0.94, AVE = 0.90 People who are important to me think that I should use skincare products Most people who influence my behavior think that I should use skincare products $\alpha = .820$, CR = 0.64, AVE = 0.54 Generally, I spend little time exploring how to use new skincare products In general, I am hesitant to try out new skincare products Among my peers, I am usually the first to try out new skincare products I like to experiment with new skincare products	.86 .95a .83 .77 .79 .89a	$\alpha = .915$, CR = 0.94, AVE = 0.90 People who are important to me think that I should use make-up products Most people who influence my behavior think that I should use make-up products $\alpha = .819$, CR = 0.64, AVE = 0.56 Generally, I spend little time exploring how to use new make-up products In general, I am hesitant to try out new make-up products Among my peers, I am usually the first to try out new make-up products I like to experiment with new make-up products	.91 .93a .88 .89 .84 .83a
Consumer Innovativeness	$\alpha = .820$, CR = 0.64, AVE = 0.54 Generally, I spend little time exploring how to use new skincare products In general, I am hesitant to try out new skincare products Among my peers, I am usually the first to try out new skincare products I like to experiment with new skincare products	.83 .77 .79 .89a	$\alpha = .819$, CR = 0.64, AVE = 0.56 Generally, I spend little time exploring how to use new make-up products In general, I am hesitant to try out new make-up products Among my peers, I am usually the first to try out new make-up products I like to experiment with new make-up products	.88 .89 .84 .83a

Model summary statistics: $\chi^2_{(17)} = 59.64$, $\chi^2/df = 3.51$, p value = 0.00, robust CFI = .95, RMSEA = .048, Delta2 = .955, TLI = .90, RMR = 0.020.

Model summary statistics: $\chi^2_{(17)} = 81.12$, $\chi^2/df = 4.77$, p value = 0.00, robust CFI = .94, RMSEA = .048, Delta2 = .94, TLI = .870, RMR = 0.020.

^a Loading fixed to 1 for identification purposes.

Table 3. Means, standard deviations, correlations, and shared variances ($n = 192$)^a.

	Skincare				Cosmetics			
	1	2	3	4	1	2	3	4
1. Attitude	0.74	0.23	.18	.28	0.74	.23	.09	.28
2. Subjective Norm	.483**	0.90	.12	.25	.483**	0.90	.13	.25
3. Consumer Innovativeness	.427**	.348**	0.54	.14	.309**	.369**	0.56	.26
4. Intention to Purchase	.534**	.507**	.377**	0.86	.534**	.507**	.515**	0.85
Mean	3.81	2.68	2.77	3.65	3.76	2.67	2.87	3.31
Standard deviation (SD)	1.03	1.22	1.21	1.11	.96	1.18	.67	1.01

Note: ** $p < 0.10$; * $p < 0.05$.

^aThe correlations are included in the lower triangle of the matrix. Shared variances are included in the upper triangle of the matrix. Average variances extracted are in the middle of the matrix.

intervals for correlations between any two constructs, using the following formula (Cohen, Cohen, West, & Aiken, 2003):

$$CI (95\%) = R_z \pm 1.96 \times (SE_z),$$

Where CI = confidence interval (95%),

R_z : z transformation of the correlation between any two constructs,

$$SE_z = 1/(n + 3)^{1/2} \text{ and}$$

n is sample size.

We found the resulting confidence intervals do not include unity (+1 or -1), in support of the discriminant validity between any two constructs.

Table 3 also provides the means, standard deviations, shared variances, average variance extracted, and intercorrelations for the constructs.

3.3 Common method variance

Because of Campbell and Fiske's (1959) concern about self-reported measures and the data for each variable being from a single respondent, a common method bias may occur due to influences such as self-desirability, or ambiguity, leading to some inflated estimates of hypothesized relationships and misleading interpretations of findings (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Tajeddini, Elg, & Trueman, 2013). Therefore, we employed Harman's one-factor test within a CFA setting (Podsakoff & Organ, 1986). This resulted in four factors with eigenvalues greater than 1.0, which accounted for 62.609% of the total variance, with Factor 1 representing 21.841% of this variance. Because a single factor did not emerge and Factor 1 did not explain most of the variance, a common method bias is unlikely (Podsakoff & Organ, 1986).

4. Results

Due to the limitations of the small sample size, a multiple regression analysis was performed to test the hypothesized relationships. Standardized parameter estimates and t -values for the model are shown in Table 4 and indicate attitudes ($\beta = .332, p < .001$), subjective norms ($\beta = .301, p < .001$), and consumer innovativeness ($\beta = .131, p < .01$) would positively influence intention to purchase new skincare products, supporting H1a, H1b, and H1c respectively. Likewise, attitudes ($\beta = .320, p < .001$), subjective norms ($\beta = .231, p < .001$), and consumer innovativeness ($\beta = .331, p < .001$) would positively influence intention to purchase new make-up cosmetic products, supporting H2a, H2b, and H2c respectively. The high R^2 value of purchasing intention to purchase new skincare ($R^2 = .379$) and make-up ($R^2 = .379$) products indicates that these variables strongly influence intention to purchase these cosmetics products.

4.1 Discussion and practical implications

This research was aimed at understanding the role of attitude, subjective norms, and consumer innovativeness in the augmentation of women's intention to purchase skincare and make-up cosmetic products. The results provided sufficient evidence to sustain the claim of a direct relationship. As expected, the more favorable attitudes toward the behavior the consumer held, the more likely she was to purchase new cosmetic products. These findings support the results of some previous research conducted with regard to personal skincare products (Sukato & Elsey, 2009) and shampoo (Kim & Chung, 2011)

Table 4. Results of regression analysis (Skincare and Make-up cosmetics) ($n = 192$).

Predictor variables	Skincare cosmetics			Make-up cosmetics		
	Standardized Coefficients (β)	t-value	Hypothesis	Standardized Coefficients (β)	t-value	Hypothesis
Attitude	.332	4.843***	H1a	.320	5.195***	H1b
Subjective norm	.301	4.557***	H2a	.231	3.657***	H2b
Consumer innovativeness	.131	2.038**	H3a	.331	5.701***	H3b
R ²	.379			.458		
Model fit	F = 38.934***			F = 53.838***		
Adjusted R ²	.370			.450		

Note: ** $p < .01$, *** $p < .001$.

which showed the significance of consumers' attitudes toward such personal care products. The positive impact of attitude on cosmetic consumers' intention to purchase new make-up products further strengthens this connection between attitude and purchase intention, reinforcing the argument put forward by Ajzen (1985), which states an individual is more likely to undertake a certain behavior if he/she has a positive attitude toward undertaking the behavior. The positive and highly significant correlation between subjective norm and purchase intention indicates that behaviors and attitudes of other people enhance their credibility in the eyes of the customers. In line with the findings of Alam, Arshad, and Shabbir (2012) and Venkatesh et al. (2000), subjective norms play a vital role in women's decision-making processes. The results are consistent with previous empirical research showing the positive relationship between subjective norms and intention, including with regard to both skincare (e.g., Hillhouse et al., 2000; Souiden & Diagne, 2009) and make-up cosmetics (Guthrie et al., 2008; Vanessa et al., 2010). However, this is in conflict with previous studies (Myers and Horswill, 2006; Kim & Chung, 2011; Sukato & Elsey, 2009) which found a negative effect of subjective norm and purchase intention. As another aspect of this study, we posited that consumer innovativeness influences women's purchase intentions regarding new cosmetic products. Our results are consistent with past research (e.g., Crespo & Rodríguez, 2008; Im, Bayus, & Mason, 2003; Jordaan & Simpson, 2006; Tajeddini & Tajeddini, 2012b) which found a positive relationship between consumer innovativeness and new product adoption. Another interesting avenue is to see the relationship between subjective norms and consumer innovativeness. Our results also indicate that the pressure of peers, society, and friends at large is invariably linked to the consumer innovativeness (see Table 3). The presumption is that the more favorable the social norm, the greater the inclination to innovate the behavior. This is interesting because it seems that the perceptions of cosmetics consumers can be influenced by normative beliefs, such as family expectations, when they are considering performing a certain act (see Ajzen, 2002; Fishbein and Ajzen, 1975; Zellweger, Sieger, and Halter, 2010). In other words, the association of subjective norms which are embedded in perceived desirability as determinant of new product adoption (consumer innovativeness) requires further investigation. Our view that consumer innovativeness, attitude and subjective norm relationships with intention to purchase the new cosmetic products were justified by the empirical evidence as observed as a part of this analysis. These outcomes also have significant practical implications for cosmetic corporations and their senior managers. The findings add further to the call for managers to consider the importance of the theory of reasoned action (TRA) and its main components which explain a person's intentions as a function of some basic determinants, his/her nature and social influence (Ajzen and Fishbein, 1980). The findings can help managers to explain individual cosmetic acceptance decisions across a wide range of influential factors. Managers might also use the research findings to assist in the new cosmetic product development, understanding the valuable factors which influence intention to purchase their product. The propositions and frameworks constitute guidelines which will be useful in the process of marketing strategy formulations and implementation by practitioners and establish bases for academic researchers to test concept validity, examine concept differences, and explore concept relationships.

4.2 Limitations and further research

The findings of this study are limited to some extent in relation to the sampling frame. Specifically, while the data were collected from the Swedish women in three main cities

only, and thereby reached a greater source of variance, the generalizability of the findings is still limited, as other women of other cultures are not represented. The data analyzed in this research were cross-sectional and collected using convenience sampling. Future studies should use random sampling and longitudinal research should be considered. In future, the inclusion of dimensions such as trustworthiness (Delgado-Ballester & Munuera-Alemán, 2005) and attitudinal and behavioral loyalty (Jacoby & Chestnut, 1978; Kim, 2011) would provide further insights into the effective management of cosmetic buying behavior. Also, it would be advisable for fresh research to focus on the impact of the moderating effect of personal innovativeness on the purchase decision-making process. Since buyers of cosmetic products are sensitive toward new products, we call upon other researchers to add some new concepts or variables, such as trust in general or trust toward brand, to the original model to see if they can generate a new model based on cosmetic products.

About the author

Dr Kayhan Tajeddini, having joined Lund University in 2011, is an Associate Professor (docent) at the Department of Business Administration, School of Economics and Management, Lund University, Sweden. He has accumulated a breadth of teaching, research and industry experiences in the domestic and international environments. He has an MBA with emphasis in marketing strategy and received his PhD in innovation strategy management from Bradford School of Management, UK. Dr Tajeddini has published in premier peer-reviewed journals including Long Range Planning, Tourism Management, International Journal of Hospitality Management, Journal of Marketing Management, Journal of International Entrepreneurship, Journal of Hospitality & Tourism Research, Journal of Retailing and Consumer Services, Journal of Hospitality and Tourism Technology, Journal of Workplace, International Entrepreneurship and Management Journal and Learning, Education, Business, among others.

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Notes

1. $CR_{\eta} = (\sum \lambda_{\gamma_i})^2 / ((\sum \lambda_{\gamma_i})^2 + (\sum \varepsilon_i)^2)$ where CR = composite reliability for scale η ; λ_{γ_i} = standardized loading for scale item γ_i , and ε_i = measurement error for scale item γ_i (Fornell & Larcker, 1981).
2. $V_{\eta} = \sum \lambda_{\gamma_i}^2 / \sum \lambda_{\gamma_i}^2 + \sum \varepsilon_i^2$ where V_{η} = average variance extracted for η ; λ_{γ_i} = standardized loading for scale item γ_i , and ε_i = measurement error for scale item γ_i (Anderson & Gerbing, 1988).

References

- Agarwal, R., & Prasad, J. (1998a). A conceptual and operational definition of personal innovativeness in the domain of information technology. *Information Systems Research*, 9, 204–215.
- Agarwal, R., & Prasad, J. (1998b). The antecedents and consequents of user perceptions in information technology adoption. *Decision Support Systems*, 22, 15–29.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice Hall.
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior Human Decision Processes*, 50, 179–211.
- Ajzen, I. (2002). Residual effects of past on later behavior: Habituation and reasoned action perspectives. *Personality and Social Psychology Review*, 6, 107–122.
- Alam, A., Arshad, M. U., & Shabbir, S. A. (2012). Brand credibility, customer loyalty and the role of religious orientation. *Asia Pacific Journal of Marketing and Logistics*, 24, 583–598.
- Anderson, J. C., & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bulletin*, 103, 411–423.

- Auty, S., & Elliott, R. (1998). Fashion involvement, self-monitoring and the meaning of brands. *Journal of Product and Brand Management*, 7, 109–123.
- Autio, E., Keeley, R. H., Klofsten, M., & Ulfstedt, T. (1997). Entrepreneurial intent among students: Testing an intent model in Asia, Scandinavia and USA. *Babson College Frontiers of Entrepreneurship Research*. Retrieved from <http://www.babson.edu/entrep/fer/papers97/autio/aut1.htm>, accessed 20 March 2013.
- Aurier, P., & de Lanauze, G. S. (2012). Impacts of perceived brand relationship orientation on attitudinal loyalty: An application to strong brands in the packaged goods sector. *European Journal of Marketing*, 46, 1602–1627.
- Avlonitis, George J., & Panagopoulos, Nikolaos G. (2005). Antecedents and Consequences of CRM Technology Acceptance in the Sales Force. *Industrial Marketing Management*, 34, 355–368.
- Bagozzi, R. P., Yi, Y., & Phillips, L. W. (1991). Assessing construct validity in organizational research. *Administrative Science Quarterly*, 36, 421–458.
- Bartlett, C. A. (2004). P&G Japan: The SK-II Globalization Project. *Harvard Business School*, Case 303–003 (March), 1–24.
- Beausoleil, Natalie (1994). Makeup in Everyday Life. In Nicole Sault (Ed.), *Many Mirrors* (pp. 33–57). New Brunswick, NJ: Rutgers University Press.
- Brady, M. K., Gary, A., Knight, G. A., Cronin, J. J., Hult, G. T. M., Bruce, D., & Keillor, B. D. (2005). Removing the contextual lens: A multinational, multi-setting comparison of service evaluation models. *Journal of Retailing*, 81, 215–230.
- Browne, M. W., & Cudeck, R. (1993). *Alternative ways of assessing model fit*. Testing structural equation models. Bollen, K.A. and Longeds, J.S. CA: Sage Publications.
- Campbell, D. T., & Fiske, D. W. (1959). Convergent and discriminant validation by the multitraitmultimethod matrix. *Psychological Bulletin*, 56, 81–105.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Erlbaum.
- Connolly, R., & Bannister, F. (2008). Factors influencing Irish consumers' trust in internet shopping. *Management Research News*, 31, 339–358.
- Delgado-Ballester, E. D., & Munuera-Alemán, J. L. M. (2005). Does brand trust matter to brand equity? *Journal of Product & Brand Management*, 14, 187–196.
- Dellinger, K., & Williams, C. L. (1997). Makeup at work: Negotiating appearance rules in the workplace. *Gender & Society*, 11, 151–177.
- Ekiz, E. H., & Au, N. (2011). Comparing Chinese and American attitudes towards complaining. *International Journal of Contemporary Hospitality Management*, 23, 327–343.
- Fishbein, M. (1963). An investigation of the relationships between beliefs about an object and the attitude toward that object. *Human Relations*, 16, 233–239.
- Fishbein, M., & Ajzen, I. (1975). *Belief, attitude, intention, and behavior: An introduction to theory and research*. Reading, MA: Addison-Wesley.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18, 39–50.
- Goldsmith, R. E., d'Hauteville, F., & Flynn, L. R. (1998). Theory and measurement of consumer innovativeness: A transnational evaluation. *European Journal of Marketing*, 32, 340–353.
- Goldsmith, R. E., & Hofacker, C. F. (1991). Measuring consumer innovativeness. *Journal of the Academy of Marketing Science*, 19, 209–221.
- Hirschman, E. C. (1980). Innovativeness, novelty seeking, and consumer creativity. *Journal of Consumer Research*, 7, 283–295.
- Im, S., Bayus, B. L., & Mason, C. H. (2003). An empirical study of innate consumer innovativeness, personal characteristics, and new-product adoption behavior. *Journal of the Academy of Marketing Science*, 31, 61–73.
- Jordaan, Y., & Simpson, M. (2006). Consumer innovativeness among females in specific fashion stores in the Menlyn shopping centre. *Journal of Family Ecology and Consumer Sciences*, 34, 32–40.
- Kim, M. (2011). Our brand or their brand? Consumers' responses to negative consumer-generated product reviews regarding domestic versus foreign brands. *Journal of Global Scholars of Marketing Science: Bridging Asia and the World*, 21, 126–136.
- Kim, W., Di Benedetto, C. A., & Hunt, J. M. (2012). Consumer innovativeness and consideration set as antecedents of the consumer decision process for highly globalized new products: A three-

- country empirical study. *Journal of Global Scholars of Marketing Science: Bridging Asia and the World*, 22(1), 1–23.
- Ko, E., Lee, J. -H., Kim, A. J., & Burns, L. D. (2010). Moderating effect of lifestyle on consumer behavior of loungewear with Korean traditional fashion design elements. *Journal of Global Scholars of Marketing Science: Bridging Asia and the World*, 20, 15–26.
- Ko, E., Sung, H. W., & Yoon, H. (2008). The effect of attributes of innovation and perceived risk on product attributes and intention to adopt smart wear. *Journal of Global Scholars of Marketing Science: Bridging Asia and the World*, 18(2), 1–23.
- Kumar, S. (2005). Exploratory analysis of global cosmetic industry: Major players, technology and market trends. *Technovation*, 25, 1263–1272.
- Kumar, S., Massie, C., & Dumonceaux, M. D. (2006). Comparative innovative business strategies of major players in cosmetic industry. *Industrial Management and Data Systems*, 106, 285–306.
- Kyung, S. B. (2012). *The impact of consumer innovativeness, attitude, and subjective norm on cosmetic buying behavior: Evidence from APU female students*. Beppu: Asia Pacific University.
- Lee, H. Y., Qu, H., & Kim, Y. S. (2007). A study of the impact of personal innovativeness on online travel shopping behavior – A case study of Korean travellers. *Tourism Management*, 28, 886–897.
- Marcoux, D. (2000). Appearance, cosmetics, and body art in adolescents. *Dermatologic Clinics*, 18, 667–673.
- Midgley, D. F., & Dowling, G. R. (1978). Innovativeness: The concept and its measurement. *Journal of Consumer Research*, 4, 229–243.
- Miller, L., & Cox, C. (1982). For appearance's sake: Public self-consciousness and makeup use. *Personality and Social Psychology Bulletin*, 8, 748–751.
- Mulhern, R., Fieldman, G., Hussey, T., Lévêque, J. L., & Pineau, P. (2003). Do cosmetics enhance female Caucasian facial attractiveness. *International Journal of Cosmetics Science*, 25, 199–205.
- Nowell, C., & Stanley, L. R. (1991). Length-biased sampling in mall intercept surveys. *Journal of Marketing Research*, 28, 475–480.
- O'Cass, A., & Fenech, T. (2003). Web retailing adoption: Exploring the nature of internet users web retailing behavior. *Journal of Retailing and Consumer Services*, 10, 81–94.
- Park, J., Ko, E., & Kim, S. (2010). Consumer behavior in green marketing for luxury brand: A cross-cultural study of US, Japan and Korea. *Journal of Global Academy of Marketing Science: Bridging Asia and the World*, 20, 319–333.
- Peiss, K. (1998). *Hope in a Jar: The making of the American beauty culture*. New York: Metropolitan Books.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J. -Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: A critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88, 879–903.
- Podsakoff, P. M., & Organ, D. W. (1986). Self-reports in organizational research: Problems and prospects. *Journal of Management*, 12, 531–544.
- Roehrich, G. (2004). Consumer innovativeness: Concepts and measurements. *Journal of Business Research*, 57, 671–677.
- Shim, S., Eastlick, M. A., Lotz, S. L., & Warrington, P. (2001). An online prepurchase intentions model: The role of intention to search. *Journal of Retailing*, 77, 397–416.
- Souden, N., & Diagne, M. (2009). Canadian and French men's consumption of cosmetics: A comparison of their attitudes and motivations. *Journal of Consumer Marketing*, 26, 97–109.
- Steenkamp, J. E. M., Ter hofstede, F., & Wedel, M. (1999). A cross-national investigation into the individual and national cultural antecedents of consumer innovativeness. *Journal of Marketing*, 63, 55–69.
- Tajeddini, K. (2010). Effect of customer orientation and entrepreneurial orientation on innovativeness: Evidence from the hotel industry in Switzerland. *Tourism Management*, 31, 221–231.
- Tajeddini, K. (2011). Customer orientation, learning orientation, and new service development: An empirical investigation of the Swiss hotel industry. *Journal of Hospitality & Tourism Research*, 35, 437–468.
- Tajeddini, K., Elg, U., & Trueman, M. (2013). Efficiency and effectiveness of small retailers: The role of customer and entrepreneurial orientation. *Journal of Retailing and Consumer Services*, 20, 453–462.

- Tajeddini, K., & Tajeddini, K. (2012a). *Organizational and personal innovativeness. Comparing high technology firms in developed and developing countries: Cluster growth initiatives* (pp. 217–225). Hershey: IGI Publisher.
- Tajeddini, K., & Tajeddini, K. (2012b). A synthesis of contemporary organisational innovativeness perspectives. *International Journal of Business Innovation and Research*, 6, 532–555.
- Tajeddini, K., & Trueman, M. (2014). Perceptions of innovativeness among Iranian hotel managers. *Journal of Hospitality and Tourism Technology*, 5, 62–77.
- Taylor, S., & Todd, P. A. (1995). Understanding information technology usage: A test of competing models. *Information Systems Research*, 6, 144–176.
- Vanessa, A.-I., Hartmann, P., Diehl, S., & Terlutter, R. (2010). Women satisfaction with cosmetic brands: The role of dissatisfaction and hedonic brand benefits. *Journal of Business Management*, 5, 792–802.
- Venkatesh, V., Morris, M. G., & Ackerman, P. L. (2000). A longitudinal field investigation of gender differences in individual technology adoption decision-making processes. *Organizational Behavior and Human Decision Processes*, 83, 33–60.